Think Research

Using research evidence
in service planning

Think Research: Using research evidence
to inform service development
for vulnerable groups

Outcome-
focused
evaluation

Locating
relevant
research
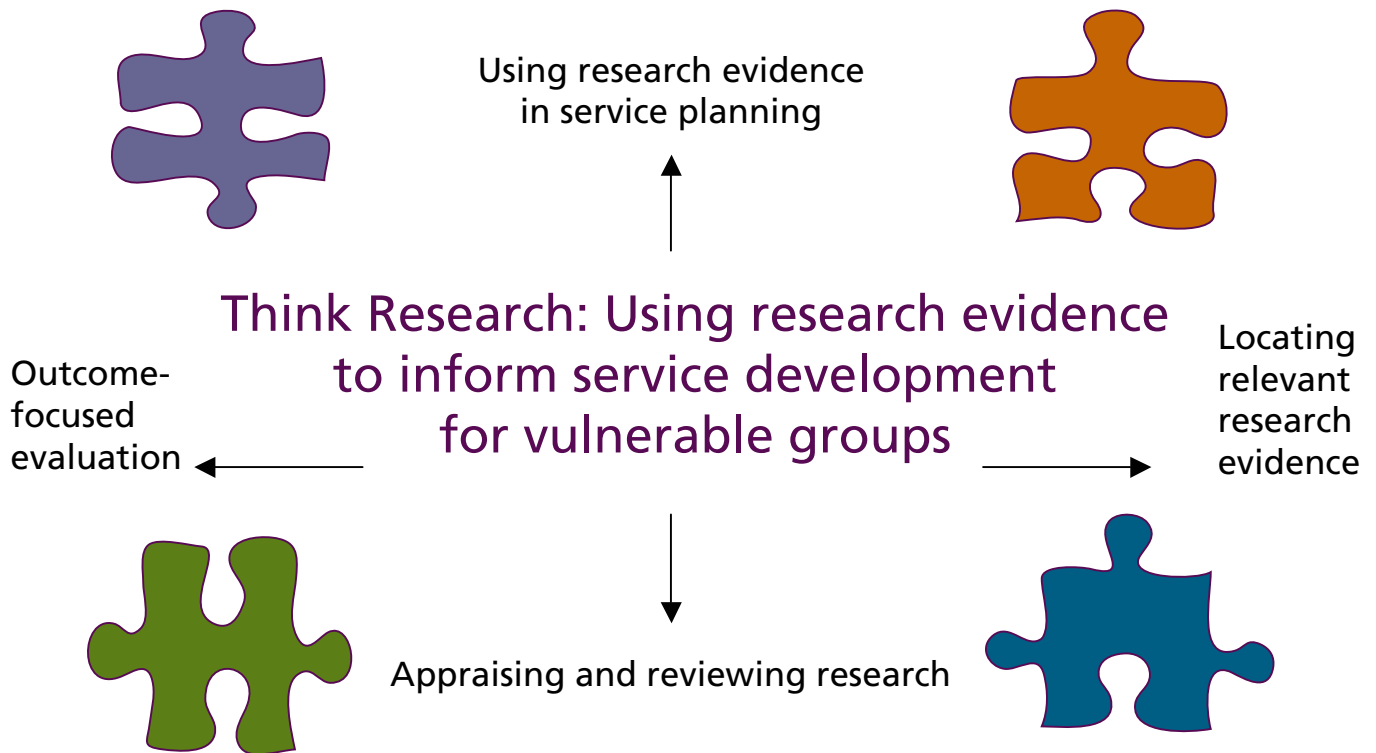evidence

Appraising and reviewing research

Foreword

Effective services are key to driving change and improving the outcomes of vulnerable groups. There has already been strong commitment, within both central and local government, to drive up standards and quality in service planning, design and delivery. This helps to ensure accountability and value for money. We need to continue this commitment and harness energy to drive even greater improvements in services. A key area for improvement is more use of evidence to inform service commissioning and development. We need to place greater emphasis on supporting decision makers to make transparent, evidence-informed choices about which services are funded and developed. This report sets out key guidance in the use of research evidence to inform the selection and monitoring of services for vulnerable groups.

The relationship between academic research and evaluation, and service commissioners and providers can be strained. This guidance helps demystify research and gives commissioners and providers support in understanding and forensically examining research evidence.

Not only is it fair to use a system of selecting services which is informed by research evidence; it is also more efficient. In so doing, we will help to shape and change the lives of some of those most disadvantaged citizens in our society and make better use of public money.

Naomi Eisenstadt CB
Director, Social Exclusion Task Force

Contents

Look for:

Key message boxes sum up important points made in the text.

Case study boxes provide links to summaries of research studies that illustrate the issue being discussed.

Tell me more… boxes direct readers to online resources that will provide more information about the topic.
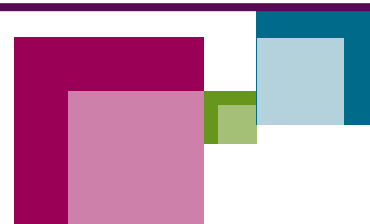
Online resources
(go to www.cabinetoffice.gov.uk/social_exclusion_task_force.aspx)

1. Glossary of research terms   *What does the jargon mean?*

2. Building research capacity   *Where can you find more information?*
   a. Accessing research
   b. Assessing research
   c. Understanding statistics
   d. User involvement
   e. Implementation
   f. Auditing your research capacity

3. Appraising research evidence   *Are there tools that you can use to measure the reliability of research?*
   a. Study grading tool
   b. Appraising randomised controlled trials
   c. Appraising quasi-experimental trials
   d. Appraising qualitative research

4. Searching databases – basic guidance   *How do you locate research studies and abstracts?*

5. Ethical guidance   *How can you ensure your work meets ethical guidance?*

6. Case studies   *Are there examples of using research evidence in practice?*

Chapter 1: Introduction

This section describes who this guidance is for, its purpose and its contents. It shows what the guidance can help you achieve and examines priority areas from the perspective of practitioners.

The Government and those who make decisions about service development have an important role to play in improving the outcomes and life chances of those most vulnerable in society. Selecting appropriate services lies at the heart of tackling social exclusion and disadvantage. It is not enough to fund and provide a service for vulnerable groups without understanding its impact and effectiveness.

This guidance sets out principles for using **research evidence** to **select** and **monitor** services for vulnerable groups. Two main areas are covered:

- Part I: How to use research evidence in service planning and selection (Chapters 2 and 3).
- Part II: How to gather research evidence to monitor and evaluate your service (Chapter 4).

1.1 Who is the guidance for?

This guidance is for professionals who have direct responsibility for designing, commissioning, providing or managing services for vulnerable groups. It is relevant to those in the public, private and voluntary sectors. If you answer 'yes' to one or more of the following questions, this guidance is for you:

- Do you need to ensure that the services you commission and deliver are based on the best available evidence of what works?
- Would you like to be able to understand research and appraise its quality and relevance?
- Would you like to improve your organisation's capacity to conduct evaluations or commission research?

- Would you like to be able to better demonstrate the value and outcomes of your service?

The guidance does not aim to set impossibly high standards for commissioning authorities and service providers. It suggests that commissioners and providers have an obligation to:

- seek out the evidence currently available and invest accordingly;
- identify where the evidence base needs to be strengthened;
- design appropriate evaluation programmes; and
- review services as new knowledge becomes available.

The guidance will enable commissioners and providers to reach a higher level of assurance that they are directing investment towards services that are, given the options available, the most likely to achieve the outcomes intended.

No specialist research knowledge is required to use this guidance (see online resource: Glossary of research terms*). However, when you intend to design and carry out an evaluation, you may want to seek additional help.

1.2 What will the guidance help you to achieve?

Evidence-informed practice means that decisions made about how to support vulnerable groups are informed by the best available and most relevant research. By **research evidence**, we mean knowledge that has been acquired through a systematic and transparent process of enquiry.

* www.cabinetoffice.gov.uk/social_exclusion_task_force.aspx

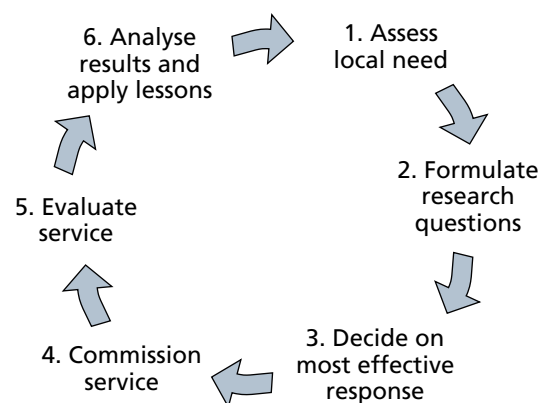Appropriate use of research can help you to do the following:

- **Ensure and underpin professional credibility.** The guidance will help you to assess the extent to which your existing or planned service is informed by evidence, and to make judgements about the strength of this evidence. Most importantly, it will help you answer the question: "What difference have we made to vulnerable individuals and groups?" The guidance will steer you through the following areas:
  - using research evidence in service planning;
  - locating relevant research evidence;
  - assessing and appraising research evidence; and
  - outcome-focused evaluation.

- **Ensure transparency in the commissioning process.** The use of research evidence will support greater transparency in the commissioning process. It will enable commissioners, managers and others to base decisions on the strength of evidence. This approach can support decisions concerning the commissioning and decommissioning of services.

> **Key message**
> Evidence from research is not the only form of knowledge required for sound decision making. However, research evidence is an essential part of any organisation's overall knowledge base.

- **Ensure value for money.** Improving the ability of an organisation or local authority to find, create or use research to inform its practice enables commissioners to be more confident that they are making the best investments for improved outcomes and hence are achieving value for money.

- **Ensure accountability.** Commissioners and service providers increasingly live in a world of greater accountability and performance management targets. Building research into the decision-making process helps to demonstrate that it is robust.

- **Ensure that we protect the welfare of vulnerable groups.** There is a strong, principled argument in knowing what works. It is very important that the right services are developed for vulnerable people. Research evidence can help to select the best services to support those who are disadvantaged to have improved life chances.

- **Ensure delivery of national and local priorities.** Local authorities in England are responsible for meeting a range of targets aimed at improving the current and future circumstances of vulnerable groups. The guidance can help to achieve better outcomes on, for example:
  - the National Indicator Set and Public Service Agreements;
  - National Service Frameworks; and
  - the Every Child Matters outcome framework.

- **Respond appropriately and effectively to locally defined needs.** Effective evidence-informed commissioning should also be driven by a strong emphasis on user engagement and assessment of local need. Once local needs are understood, it is important to ask what works, as illustrated in the diagram below.

6. Analyse results and apply lessons → 1. Assess local need → 2. Formulate research questions → 3. Decide on most effective response → 4. Commission service → 5. Evaluate service → (back to 6. Analyse results and apply lessons)

Chapter 2: Using research evidence in practice

This section discusses the basic principles of incorporating research evidence into service planning, why and how to formulate meaningful research questions, and the skills needed to apply evidence to practice.

2.1 Evidence-informed practice

Evidence-informed practitioners are able to explain, and defend, their chosen approach by reference to a robust knowledge base. Evidence-informed practice is about searching not for the 'right' answer, but for the best currently available answer for the task in hand. To achieve this, we need to consider the broader issues that may affect how we try to apply evidence to practice. For example:

- The same issue can be approached from different perspectives. We may choose to see elder abuse as a medical, criminal or social problem and our chosen course of action may differ accordingly.

- The effectiveness of some services may change when they are applied in different cultural, local, national and international settings.

- Approaches that appear effective at one time may become obsolete as people's expectations and aspirations change.

We also need to understand the options available in order to choose the option most likely to lead to a good outcome. The views of service users are a crucial element in this process, as they are well placed to identify what might work for them.

Tell me more…
There is more information about the involvement of service users (see online resource: User involvement.*)

2.2 What do we mean by 'research evidence'?

Research evidence is knowledge that has been acquired through a systematic and transparent process of enquiry. This includes evidence

from published research articles and papers, or unpublished sources such as internally conducted evaluations. Research can tackle a wide range of issues, from an in-depth investigation of a topic (for example, by exploring the views of service users) to measuring outcomes on standardised measures or ratings scales. Research evidence can complement other sources of evidence such as practice experience and professional knowledge, guidance, and the experience and views of users and carers. Different types of research approaches (i.e., qualitative and quantitative) are discussed further in Chapter 4.
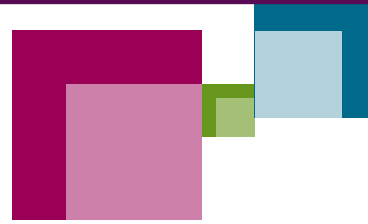
Case study 1
Practice question:
What factors do looked-after children consider the most important in improving their quality of life? Do these differ from the views of adults? (See online resource: Case studies.*)

Key message
All research methods have strengths and weaknesses. For guidance, see online resource: Study grading tool.*

2.3 What kind of research evidence is most useful?

There are many ways of conducting research and many different kinds of research evidence. Some are more reliable and robust than others. It is vital that we think about the quality or trustworthiness of any evidence we might use and what we want to use it for. A research method is just a tool and its usefulness depends on the job it is needed for. Some research studies reach conclusions that may have serious implications for service models.

* www.cabinetoffice.gov.uk/social_exclusion_task_force.aspx

For example, in some cases the evidence may indicate that an innovative model should be adopted, whereas in other cases it may show no benefits over existing practice.

> **Case study 2**
> *Practice question:*
> Is money better spent on introducing a new model or should we invest in improving what we already have? (See online resource: Case studies.*)

2.4 The importance of the question

Which research tool is used should depend on the question that is being asked. If the question you are asking is about the effectiveness of an intervention such as…

- *What is the evidence that family therapy works for teenagers with anorexia?*

… then looking for a randomised controlled trial (RCT) (see online resource: Glossary of research terms*) or a systematic review would be wholly appropriate. An RCT would demonstrate whether changes in the service user's situation (such as improved recovery from anorexia) can be attributed to the intervention (such as family therapy) with a high degree of confidence. However, if your question is about gaining greater understanding of an issue, such as…

- *Why do many of the siblings to whom we offer family therapy drop out of the programme at an early stage?*

… then a qualitative approach (see online resource: Glossary of research terms*) which seeks to obtain children's views would be more appropriate, as this would provide valuable insights from those receiving the service.

2.5 Not all evidence is born equal

All research evidence has the potential to provide information that may help service development. However, the quality of research and the questions it can answer vary widely. The level of quality will determine the 'weight' we can give to the usefulness and trustworthiness of the evidence. This is particularly true when **cause and effect** relationships are sought. A grading tool has been designed to help you judge the quality and utility of research evidence (see online resource: Appraising research evidence*). Any research that fails to properly understand and define the research question and uses an inappropriate methodology to address the research question should be considered to be poor research evidence.

2.6 The four 'A's

Effective use of research evidence relies on practitioners and service planners having the necessary skills and knowledge (or access to these). Developing these skills can help create a process where useful evidence is:

- **acquired** – this means knowing where to locate research evidence;
- **assessed** – this means being able to appraise the quality of the evidence;
- **adapted** – this means fitting the evidence into your own practice situation; and
- **applied** – this means using the evidence to improve outcomes for service users.

> **Tell me more…**
> You may wish to audit your capacity to implement the four 'A's. See online resource: Auditing your research capacity.*

SKILLS REQUIRED FOR RESEARCH USE		
Skill area		**Key questions**
Acquiring research	➲	Are you looking in the right places? Can you find the research results needed?
Assessing research	➲	Is the research evidence reliable and high quality? Is it relevant and applicable?
Adapting research	➲	Can we present the evidence in a useful format combining recommendations, conclusions and key issues?
Applying research	➲	Do we have the skills, structures, processes and culture to promote and use research evidence in decision making?

2.7 Key skills: asking questions

Locating research involves formulating an appropriate question. Some of the most useful research studies pose the question in the title and then proceed to answer it.

> **Case study 3**
> *Practice question:*
> Can we reduce the need to place children into care by investing in programmes that reduce parental substance misuse? (See online resource: Case studies.*)

There are three key components to consider when formulating questions about the effectiveness of services. These are as follows:

- *Who are your service users? (target group)*
- *What do you want to achieve? (outcome)*
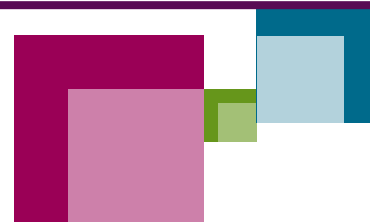- *Which services are you considering introducing or developing? (intervention)*

For example:

- Target group – **children with drug/alcohol-dependent parents**.
- Outcome – **fewer days spent by children in out-of-home care**.
- Intervention – **parent treatment programmes**.

2.8 Questions about outcomes

Outcomes need to be the focus of commissioning and service development. It is important to know the **impact** that interventions have on service users. Formulating a useful question about **outcomes** involves considering who, what and which in addition to deciding which of the three types of outcome question (general, specific and comparative) to use.

DIFFERENT TYPES OF OUTCOME-FOCUSED RESEARCH QUESTION		
General	**Specific**	**Comparative**
We know what the problem is, but have no particular solutions in mind.	We know what the problem is and have a solution in mind, but we want to know whether it works or not.	We know what the problem is and have several solutions in mind. We want to know which one will be the most effective.

As questions become more specific, the narrower the range of information required to answer them, and the tighter the limits we must place on our search. For instance, we might start with a general question in mind, as in the table below.

> **General questions – *the outcome is known but not the intervention***
> - How can we **safeguard the health** of looked-after children? (Outcome – maintenance of good health.)
> - How can we **help care leavers find work**? (Outcome – job placement.)
> - What is the best way of **encouraging care leavers to stay in further education**? (Outcome – increased programme attendance.)

Having acquired information about the range of options available, we might look in more depth at an intervention, procedure or strategy in which we have a particular interest.

> **Specific questions – *both the outcome and the intervention are known***
> - I am working with a 15-year-old boy who has several convictions for theft and 'taking and driving away'. How likely is it that **a week-long outward bound course** (intervention) will successfully divert him from further offending behaviour? (Outcome – reduced offending.)
> - Can **key worker systems** (intervention) for disabled children and their parents help increase family income? (Outcome – increase in income.)
> - Will **reminder phone calls** (intervention) the day before clients are due to attend family centre programmes reduce programme attrition? (Outcome – reduction in programme drop-out.)

We might also choose to go further and search for studies that compare the respective merits of different approaches to the same issue.

Comparative questions – *the problem is defined and a comparison sought between two or more interventions*

- Are **work preparation schemes** (intervention) more effective than **work placement schemes** (comparison) at securing long-term employment for adults with learning disabilities? (Outcome – long-term employment.)
- Are **client-held records** (intervention) more effective than **agency-held records** (comparison) in achieving greater user satisfaction with services and greater record accuracy? (Outcomes – user satisfaction and record accuracy.)
- I am discussing a programme of short-term breaks for a disabled child. She and her parents want to ensure that she is able to use as many ordinary community facilities as possible. Will a **residential home** (intervention) or a **foster family** (comparison) be more successful at meeting the family's requirements? (Outcome – use of community facilities.)

2.9 Primary or secondary research

Primary research refers to new studies that collect, analyse and present new data or findings. Secondary research refers to the reuse or re-analysis of existing research; it tends to be cheaper and quicker, and requires skills in locating knowledge that is already in the public realm.

When deciding which to use, you need to ask what will give you the information your organisation will need to make a decision. It may be necessary to use both types of research.

2.10 What level of information do we require?

In formulating a question, we need to consider who needs the information and for what purpose. It is important to identify the decisions that will be informed by the evidence collected. For example, the impact of delayed discharge of children from acute hospital wards on waiting times, will be of interest to health service managers and senior civil servants when social and health care strategies are being considered. However, this information is of limited practical use to many practitioners, who are more likely to need information on effective ways of helping rehabilitate children leaving hospital. Therefore we need to consider whether we require information at the practitioner, managerial or policy level.

Practitioners may ask, for example:

- How can we moderate the impact of parental separation on children?
- How can we identify attachment problems between mothers and children in infancy?

Managers may ask, for example:

- What model of short breaks for carers delivers the best outcomes for the lowest costs?
- What are the most effective ways of enabling young parents to participate in child protection procedures?

Policy makers may ask, for example:

- Do parenting programmes reduce the prevalence of anti-social behaviour among young people?
- Do disabled children achieve better educational results in inclusive schools?
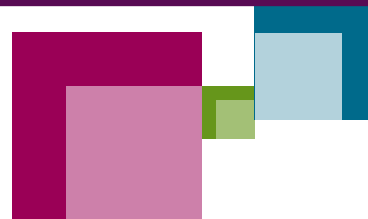
2.11 Volume of information

Searching for information is always a compromise between **sensitivity** – locating as much information as possible but not being swamped by too much – and **specificity** – locating just what matters but without missing vital knowledge by searching too narrowly. Some databases are more useful than others, depending on the subject of your interest and how they are designed. It is important, when access to databases requires a subscription, to ensure that you are getting value for money.

> **Case study 4**
> *Practice question:*
> Can we improve the behaviour of children in foster care with behavioural problems? (See online resource: Case studies.*)

> **Case study 5**
> *Practice question:*
> Can people with learning disabilities be involved in carrying out research? (See online resource: Case studies.*)

> **Key message**
> Whatever the practice problem we have, we need to formulate an answerable question – if we don't, we risk receiving wrong, insufficient or too much information.

> **Tell me more…**
> A basic guide to creating a search strategy and conducting and refining a search is provided in online resource: Searching databases – basic guidance.*

2.12 Conclusion

Building more effective services through the use of research evidence involves:

- knowledge gathering – building on what we already know, and amending our knowledge base accordingly;

- being objective and adaptable – when we have a particularly strong investment in a certain approach, we may be reluctant to acknowledge that it could be less effective than we have claimed, or that an approach we believed to be highly ineffective actually works;

- treatment fidelity – delivering the programme the way it was designed is crucial. It is important to ensure that a service based on a specific model does not begin to incorporate ad hoc amendments; and

- realising that there is rarely a final verdict – services that appear unsuccessful may achieve positive effects if a different approach is taken, for example by varying the length or intensity of the work, recruiting more skilled professionals or targeting a different population. Alternatively, outcomes may be coincidental to a particular service. For example other changes may have happened in the local area that are producing the outcomes.

> **Tell me more…**
> Resources that describe how you can access research evidence are available in online resource: Building research capacity.*)

Chapter 3: Assessing and appraising research evidence

This chapter discusses why critical appraisal skills are important, the basic principles of critical appraisal and the types of research methodology that are best placed to answer different types of research question.

3.1 Reliability of research or 'critical appraisal'

Critical appraisal is about assessing the extent to which we can rely on research findings. The extent to which we want something to be true (or false) has no bearing on whether or not it actually is. While we cannot eliminate bias, we can be aware of the possible **sources** of bias, and can assess the quality of research reports accordingly.

Critical appraisal skills focus on expecting the conclusions reached by research reports to be justified by the data collected. The more important and influential the findings, the more important a robust appraisal becomes.

3.2 Types of research: quantitative and qualitative

There are two broad approaches to research: quantitative and qualitative. Quantitative and qualitative research methods include different types of study design. Which approach we take depends on the questions we wish to ask. Neither approach is 'better', but one may be more appropriate to the task in hand.

Quantitative and qualitative research are complementary. Quantitative research can tell us about the probable effectiveness of services; qualitative research can give us an insight into what experiences of services are likely to be.

Tell me more…
See online resources: Assessing research and Study grading tool.*

* www.cabinetoffice.gov.uk/social_exclusion_task_force.aspx

	Quantitative *How many? How much? How long?*	Qualitative *Meanings, experiences and views*
AIM	Forecast; estimate; measurement.	Understanding processes; explanation; generation of ideas.
EMPHASIS	Breadth of understanding; extensive coverage.	In-depth and detailed; intensive coverage.
SCALE	Minimum detail from maximum number of cases.	Maximum detail from minimum number of cases.
SAMPLE	Larger sample sizes; numerically representative.	Small sample; typically researcher selects sample.
USEFUL FOR…	Description of patterns or trends; measurement of extent, location or differences.	Exploratory work where issues are not clearly understood; complex or sensitive issues.
ANALYSIS	Reduces what people say to a number of standard categories.	Enables the experiences and dialogue of the people being studied to be observed.
OUTPUT	Numerical testing of hypotheses; can make (statistical) generalisations about the wider population based on the findings drawn from a sample of individuals.	Can make generalisations about the meaning of relationships and events; represents what we are looking at in a non-statistical way.
FOR EXAMPLE	What are the characteristics of men who attend family centre programmes? How do the health and well-being scores of adults with learning disabilities in residential accommodation differ from those of adults with learning disabilities living in housing in the community? What is the impact on educational attainment of looked-after young people who do not attend their reviews? Will paying supplements to foster carers that are contingent upon examination success improve the academic performance of fostered children? What is the most effective way to prevent repeated episodes of self-harm?	Why are many men reluctant to attend programmes at family centres? What is the range of opinions held by adults with learning disabilities about the respective merits of residential accommodation and housing in the community? Why do some looked-after young people prefer not to attend their reviews? What are the views of fostered children on educational incentive payments to foster carers? Why do some young people self-harm?

3.3 Quantitative research: how many, how much and how long

Using **quantitative** information does not necessarily require a grasp of statistics, but it does require an appreciation of their importance. Public investment depends on how a social problem is perceived, with the two most important factors often being how seriously, and how many, people are affected. The capacity to quantify a problem accurately enables an issue to move from the domain of opinion into the realm of fact. Few practitioners go through a working week without encountering a situation on which a statistical analysis could shed some light. For example:

- How much do seasonal factors account for variation in the numbers of children on child protection registers?
- Is the size of a worker's caseload related to the amount of sick leave they take?
- Will additional weekly home visits make it more likely that parents will attend sessions at family centres?

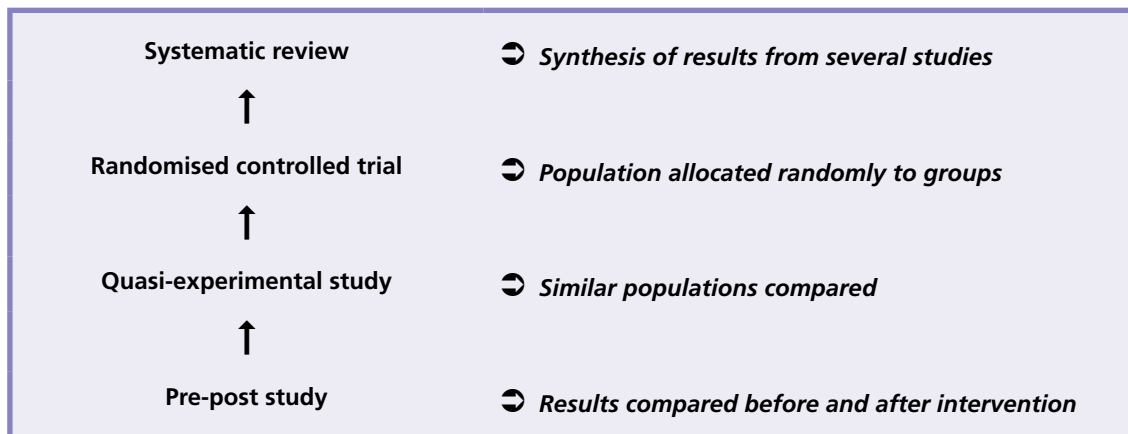- Does sharing the content of a case file with service users increase user satisfaction?

A basic grasp of some key statistical principles is sufficient for any practitioner to explore these questions, or to get someone else to do it for them. Quantitative data cannot answer all the important questions we have, but it is an essential element of any robust evaluation.

> **Tell me more…**
> Common statistical terms are given and defined in online resource: Glossary of research terms.*
> Several very useful online guides to statistics are available (see online resource: Understanding statistics.*)

The different types of quantitative research design can be illustrated as a series of levels, with reliability increasing as the levels ascend (see below).

Quantative research designs

Systematic review	⮌ *Synthesis of results from several studies*
↑	
Randomised controlled trial	⮌ *Population allocated randomly to groups*
↑	
Quasi-experimental study	⮌ *Similar populations compared*
↑	
Pre-post study	⮌ *Results compared before and after intervention*

3.4 Systematic reviews

Research Reviews

Systematic reviews, narrative reviews and meta-analyses	
Study type	**Description**
Systematic review	A review that strives to comprehensively identify, appraise and synthesise all relevant studies on a given topic.
Meta-analysis	A review that uses a statistical technique to synthesise the results of several studies into a single estimate of effect.
Narrative review	A review that synthesises the results of studies and discusses any differences descriptively rather than statistically.

When the results of existing research studies are collated or re-examined, this is known as **secondary research**. **Systematic reviews** are a form of secondary research whose particular features mean that they come at the top of the 'levels of evidence' outlined in the diagram on quantitative research design. They are seen as the very best source of evidence to support decision making about questions of effectiveness, because the conclusions they draw are based on a 'summing up' of an exhaustive search of all the high-quality research on a particular question or topic. A systematic review may include a **meta-analysis**. Both approaches differ from **narrative reviews**.

Systematic reviews are limited by the availability of primary research that is relevant to the review question. In areas where there are insufficient primary studies of good quality – and many areas of social care practice have been insufficiently investigated – systematic reviews may fail to provide any firm conclusions.
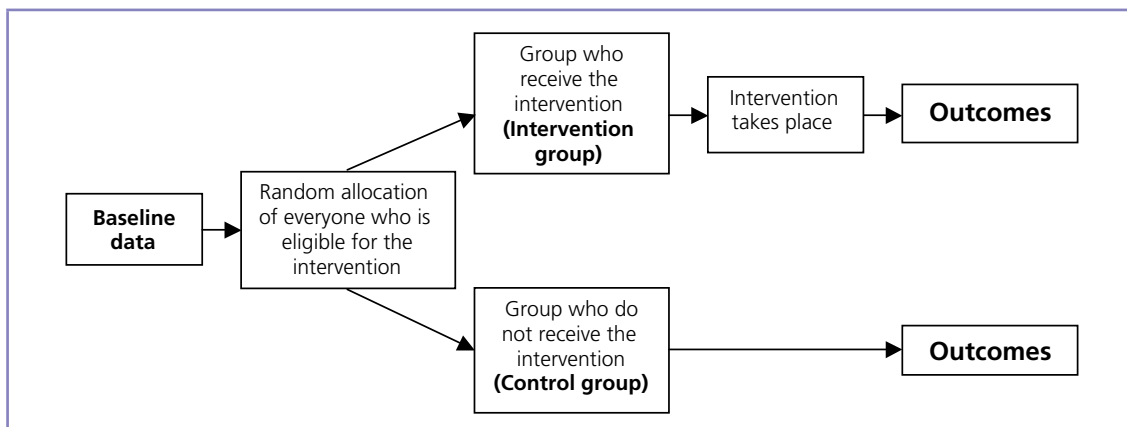
Tell me more…
A fuller discussion of these techniques and their limitations can be found at www.gsr.gov.uk/downloads/magenta_book/chap_7_magenta.pdf
(see online resource: Appraising randomised controlled trials.*)

3.5 Randomised controlled trials

Even if we try hard to make sure that the important characteristics of the intervention group (e.g. those receiving the service) and the control group are similar, there may still be key differences undetected. This could mean that differences between groups are found at the end of a study purely because the groups were different at the beginning. This can be overcome by **randomly allocating** participants to the intervention and control groups.

Case study 6
Practice question:
How can we assist people with enduring mental health problems into employment? (See online resource: Case studies.*)

* www.cabinetoffice.gov.uk/social_exclusion_task_force.aspx

Randomised controlled trials

Case study 7

Practice question:

Does intensive home visiting in infancy have long-term benefits for vulnerable children and their mothers? (See online resource: Case studies.*)

Randomising people to an intervention or control group means that any differences between groups at the outset (or baseline) are due to **chance**.

Randomisation does not guarantee that the two groups will be identical, but it greatly reduces the possibility of bias. A weakness of randomised controlled trials (RCTs) where safeguards are not prepared is that, while the model is very effective at assessing **whether** a programme/service works or not, it is not always equipped to tell us **why** it might work.

Some RCTs do not produce the results we like. However, we need to take note of studies that produce negative or disappointing results as much as those that have results we see as positive or in line with our thinking.

One difficulty in implementing an RCT is the concern that withholding a service from one group of people is unethical. A useful approach to overcome the concern about unfairness is to either:

- randomise from a waiting list when the resources available are only sufficient to serve a minority of people; or
- offer the intervention (assuming no evidence of harm emerges) to the control group when the study is complete.

Case study 8

Practice question:

Can training improve the ability of foster parents to cope with challenging behaviour? (See online resource: Case studies.*)

RCTs that include a longitudinal element – a follow-up after several years – are an especially powerful way of establishing whether an intervention has lasting effects or whether the effect has faded over time. However, longitudinal studies can be expensive to run, and retaining and/or tracking participants over several years can be a challenge.

When properly conducted, RCTs can claim to provide the most reliable evidence of the links between cause and effect. However, their conclusions can be radically affected by bias in group allocation. When critically appraising RCTs, it is essential to pay particular attention to this issue. Any study that fails to report how subjects were allocated to groups should be regarded with suspicion.

* www.cabinetoffice.gov.uk/social_exclusion_task_force.aspx

Quasi-experimental studies
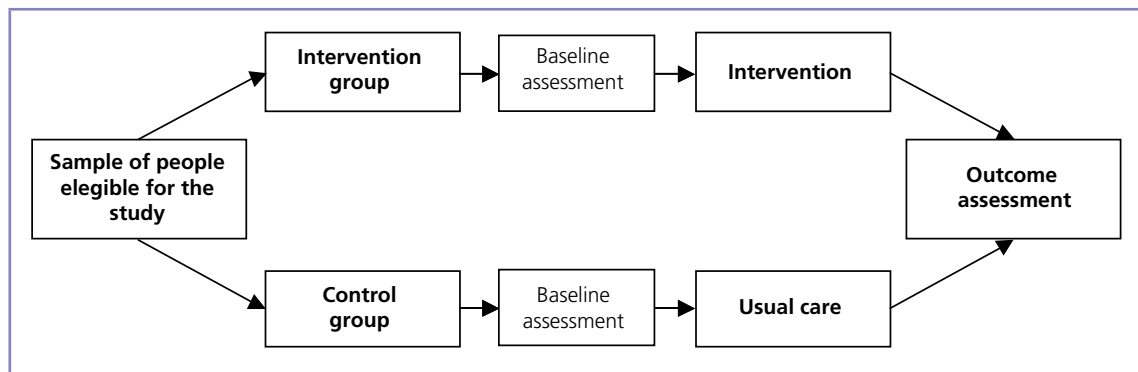
3.6 Quasi-experimental studies

In this research design a control group is 'matched' to an intervention group who do not receive the intervention or service while the research is under way, but who are also assessed at baseline and at the end of treatment.

Most studies use naturally occurring groups of people: children in different schools; a section of the population, such as disabled adults, who live in different electoral districts; or even the entire population of several districts. Every effort is made to identify similar groups.

> **Tell me more…**
> See online resource: Appraising quasi-experimental trials.*

3.7 Pre-post studies

This design assesses a population on one or more measures before an intervention is provided (baseline or Time 1) and again when the intervention has finished (Time 2), to determine whether there has been a change on the measures. Some pre-post studies also include a Time 3 follow-up assessment, which is taken at a specific time after the intervention has finished (for example, six months on).

Time 1 ➡ INTERVENTION ➡ Time 2 ➡ Time 3

Baseline   Post-test   Follow-up

However, pre-post studies cannot exclude some important sources of potential bias. These include:

- the **Hawthorne effect** – when people know they are being observed or assessed, their performance or behaviour may change accordingly; and

- the **passage of time** – behaviour may change for reasons unconnected with the intervention.

> **Case study 9**
> *Practice question:*
> How can we increase the number of successful post-care family reunions? (See online resource: Case studies.*)

3.8 Qualitative research: meanings, experiences and views

Qualitative approaches can help us understand what is more and less important to people.

The most common forms of qualitative research design are illustrated below. These are displayed not as a series of levels, but as a set of methods.

* www.cabinetoffice.gov.uk/social_exclusion_task_force.aspx

Qualitative research

Interviews   Focus groups   Observational studies
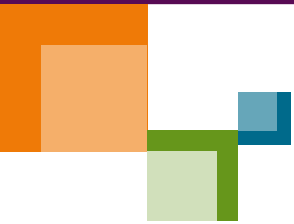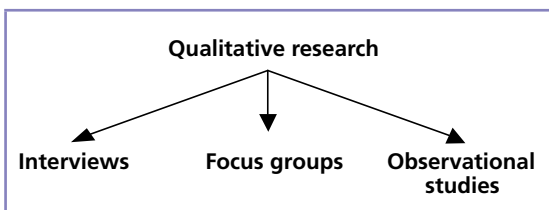
3.9 Interviews

Interviews may be conducted on a one-to-one or a group basis and are useful when directed at an identifiable target population. One-to-one interviews are typically done using:

- **semi-structured interviews** – these include some pre-determined questions but, within those questions, the interviewee is free to elaborate on an idea and give their views; or

- **structured interviews** – these allow specific questions to be prepared in advance for the interviewee to answer, and are essentially a verbally completed questionnaire.

However, as in all forms of research, there are potential sources of bias in interviews. These include:

- the **location** of the interviews;
- the **person** conducting the interviews;
- those **present** when the interviews are conducted;
- the **length** of the interviews; and
- the **language** in which the interviews are conducted.

3.10 Focus groups

A focus group is a group interview approach which gathers information from people on a predetermined list of topics. A focus group allows for observation of the way participants respond to particular issues and debates. It tends to be relatively small in size, usually comprising about six to eight individuals.

Setting up a focus group can take time, but it can provide a way of gathering large amounts of data quickly. Focus groups need to be led or facilitated by a designated individual who ensures that the main issues are discussed in a constructive way. Biased information may be produced if the facilitator does not keep participants to the topic or if one or two people dominate.
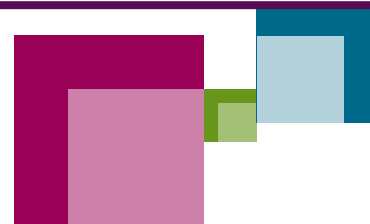
3.11 Observational studies

Observational studies involve a researcher (or team of researchers) acting as a **participant observer** or a **non-participant observer**. Participant observation means the researcher engages in the activities of those being observed. For example, if the research question was *How do mothers and fathers differ in parenting classes?*, the observer would carry out the tasks set for those attending parenting classes. Non-participant observation means the researcher remains detached from the situation. If the research question was *How do social workers interact with parents of 'at-risk' children?,* the researcher might watch social workers talking to an at-risk family.

Key message
All forms of qualitative research can produce very large amounts of data. Care must be taken at the planning stage to ensure that enough time and resources are available to analyse the volume of material that is anticipated.

Observational studies are a valuable way of determining how systems operate or how people behave in given situations. However, observational studies, like all research designs, are prone to bias. Typical sources of bias are changes to people's behaviour or views if they know they are being observed (see the Hawthorne effect, section 3.7), and changes to the environment caused by the presence of an 'outsider'.

3.12 Visual and creative methods

Visual and creative methods are much harder to standardise and replicate, and their findings may be open to multiple interpretations. However, they can be an important supplement to other methods, and can help to engage people, especially children or people with communication difficulties who may be bored or difficult to engage with more conventional approaches. Examples include the following:

- children's drawings of their neighbourhood could be used before and after a community development intervention to compare change over time;

- role plays can be used to act out events as part of the research or be used as a stimulus for other activities such as focus group discussions;

- drama or puppetry can be a particularly useful way of communicating about sensitive topics or exploring various alternative scenarios; and

- other possibilities include video diaries, photography, collage, stories, cartoons and discussion games.

3.13 Combined approaches

Finally, some methods can include both quantitative and qualitative data, with written questionnaires being the most common example. These may include tick boxes and invite general comments and responses. Questionnaires are perhaps the most commonly used evaluation tool, but they are not always appropriate. They are likely to be more effective if users, stakeholders or local communities are involved in their design. Where the same questionnaire is repeated with similar populations over time, useful information on trends may emerge.

Key message
Studies, as well as being reliable, must be relevant to decision makers. In particular, the subjects of a study must be comparable with the population with whom you work.

3.14 Conclusion

The relevance of a research study can be estimated by asking: *How useful are the findings to me, my clients, my work or my organisation?*

This can be broken down into more specific questions:

- Do the study participants differ from our service users in ways that might give different results?

- Does our local setting differ from the setting in the research?

- Could we provide the same service or intervention in our setting?

Tell me more…
Tools that may be used for evaluating the reliability of research studies are provided in online resource: Appraising research evidence.* These tools should be used when important decisions are to be based on the findings of a study.

Chapter 4: Outcome-focused monitoring and evaluation

This chapter discusses what evaluation is and why it is important; what information we should collect and how we should collect it; how we can analyse the information we have; and how we can use information to influence and change policy and practice.

4.1 Outcome-focused services

Once you have selected the type of service to commission or provide, you need to consider how to monitor and measure outcomes. Ideally, this should happen as part of the design of your service and as part of the commissioning process. This is important because data collected retrospectively is typically unreliable: quantitative data may be incomplete or missing, and qualitative data relying on people's memories is likely to be flawed and untrustworthy. Investment in evaluation should be related to the importance of the service, the potential impact on service users and the size of the budget. A new, innovative service that a commissioner may wish to replicate widely should it prove successful may deserve a substantial investment in evaluation. Conversely, smaller services with a good track record of effectiveness and success may wish to focus on the routine monitoring of processes and outputs. The proportion of a discrete budget allocated to evaluation will depend on these and other local factors but, as a general rule of thumb, one would expect between 5% and 10% of a service budget to be allocated to evaluation.

4.2 Inputs, outputs and outcomes

Inputs are resources. Outputs are what we produce or deliver. Outcomes – what we are trying to achieve and what our performance will be measured by – are results. Outcomes may be positive, negative or neutral. They may also be positive for some and not for others (for example, an approach may prove positive for some black and minority ethnic (BME) groups but not others). We want children to become healthier, happier and safer, for example, but it is possible that our actions, despite our best intentions, may make them sicker, unhappier and more vulnerable. It is also possible that our actions may have no impact at all. Whatever the result, an outcome is what happens to a service user, for good or bad, as a consequence of what we do.

> **Key message**
> Wherever possible, focus on outcomes that can be directly attributable to what you – and not others – do.

4.3 Getting SMARTer

Services have to do the best they can with the resources they receive in the time they have available. Pursuing **SMART** outcomes will help make the best use of the time and resources available.

**Specific** outcomes deal with discrete rather than broad dimensions.

Measurable outcomes enable managers to monitor performance.

Achievable outcomes enable us to build on success.

Realistic outcomes enable us to work within our resources and skill levels.

Time-limited outcomes help us to stay motivated and focused.

Work may not always have a specific end point – it may proceed in a series of stages. Nevertheless, the **SMART** principle can usually be applied, if only by making our outcomes **more** specific, **more** measurable, **more** achievable, **more** realistic and **more** time-limited. There are few services that are unable to refine their outcomes to make them **SMART*er***.
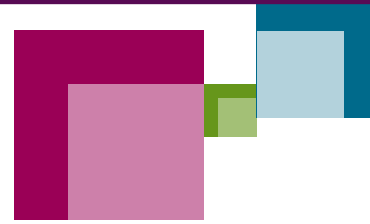
Examples of SMART and not SMART outcomes

Outcomes	SMART	Not SMART
Specific	Improve mobility, behaviour, housing	Improve 'well-being'
Measurable	Can be expressed numerically	Can only be expressed through narrative
Achievable	Fewer exclusions of BME pupils	End oppression
Realistic	A 10% decline in youth offending	A 90% decline in youth offending
Time-limited	To be achieved within a stated time period	Objectives with no deadline

4.4 Three steps to consider when developing outcomes:

STEP 1: Identify the intended long-term outcomes of your work for your service users. This may be difficult where different services are trying to achieve the same outcomes. One solution is to consider the furthest forward point in time that your actions can reasonably be expected to affect service users before other factors become relevant. For example, a service that aims to help children with challenging behaviours settle in primary schools may set its end point outcome at the end of Year 1 and not take responsibility for what happens subsequently.

STEP 2: Plan measurable outcomes. Many services make the mistake of having too many aims, objectives and outcomes. Most services with long lists of outcomes are either (i) stating the same outcome in different ways and/or (ii) mixing outputs with outcomes.

STEP 3: Decide on the type of service or intervention you could deliver to give the best possible chance of these outcomes being achieved within the resources available. Consult widely on what approaches may be the most successful in achieving the outcomes you seek.

> **Key message**
> If your service can express its core business in no more than a few outcomes, your energy can be more effectively focused.

> **Key message**
> There should be a plausible link between what you plan to achieve and the activities in which you invest.

4.5 Planning evaluations

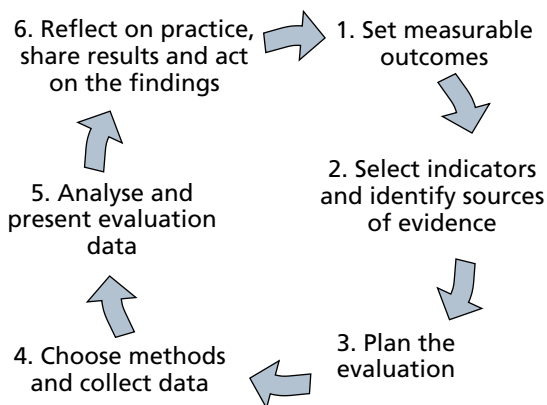Planning an evaluation involves answering the following key questions:

- Where are you now and where do you want to be?
  This involves describing your current position and agreeing a strategic goal.

- What will be different when you get there?
  This involves setting out your intended long-term outcomes and agreeing a plausible timescale for their achievement.

- What will you need to do to get there?
  This involves planning the strategies or services that will achieve your intended outcomes and the associated activities.

- What milestones will you need to reach at each stage of the journey?
  This involves describing the interim outcomes that you hope to achieve en route to your strategic goal.
- How will you know when you have reached them?
  This involves identifying the indicators and sources of evidence you will use to assess whether or not your aspirations have been achieved.
- How will you show others that you have reached them?
  This involves agreeing how you will present the findings to your chosen audience.
- How will you learn from your experiences en route?
  This involves ensuring that feedback loops exist at each stage of the process.

See the cycle of evaluation illustrated below.

4.6 The cycle of evaluation

6. Reflect on practice, share results and act on the findings
1. Set measurable outcomes
2. Select indicators and identify sources of evidence
3. Plan the evaluation
4. Choose methods and collect data
5. Analyse and present evaluation data

Planning services, choosing indicators and building in feedback are crucial to effective evaluation. Sometimes service providers and funders may commit themselves to developing a particular kind of service before carrying out a systematic analysis of local need, and often without developing an explicitly stated set of outcome objectives. In these circumstances organisations need to consider how best to feed this back into the evaluation planning of your service.

> **Key message**
> *Collecting evidence*
> It is worth thinking about what recording and reviewing processes already exist and whether any of these existing systems can also be used for evaluation purposes.

Some forms of evaluation evidence are easier to collect than others, which can make it tempting to collect what is readily available regardless of how useful it is. It is important not to fall into the trap of monitoring for its own sake. Where possible, systems for collecting evidence should complement the practice of the service rather than being an additional burden.

> **Key message**
> *Actioning evaluation results*
> Planning an evaluation also involves planning how the results will be acted on.

Performance management and evaluative information must be used to inform future service planning. If a model is being tested, the approach must be followed through in order to reach usable results. However, if an evaluation shows that an approach clearly is not working, there may be no value in continuing with that approach.

4.7 Evaluation checklist

Before beginning an evaluation, you should ask:

- *What and who is the evaluation for?*
- *Who needs to be involved?*
- *Who will do the work?*
- *What is the timescale?*
- *Are there ethical issues? (see Tell me more... below)*
- *What sort of product is needed and how will the findings be used?*

> **Tell me more…**
> Links to key guidance on ethical approval for studies are provided in online resource: Ethical guidance.*

4.8 Stakeholders

When planning an initiative it is useful to carry out a stakeholder analysis to look at who stakeholders are, how important they are to the initiative and what influence they exert. As key stakeholders in your project, local people and service users can be involved at every stage of the process: setting the outcome measures, developing appropriate ways to collect relevant data, carrying out the evaluation, assisting in the analysis, and disseminating the final product. Community participation and user involvement can result in a more relevant evaluation and improve response rates. It is important to consider what will motivate people to take part, what their role and responsibilities will be, and how they will receive feedback. You will also need to consider what training and support needs to be offered to those who get involved.

Service users are the most important stakeholders. If you intend to involve service users, there are a few questions you need to consider at this planning stage:

- How are you going to get users involved?
- How can you ensure that you are getting a representative sample of users?
- How soon should they be involved?
- What role do you want them to play?
- Are your expectations realistic?
- How will you support their involvement?
- Will you involve all service users or just a few, and how will you decide?

> **Key message**
> A stakeholder is anyone who is affected by or can influence the impact of an initiative. Stakeholders can be individuals, groups, communities or organisations.

4.9 Types of output

It is important to consider which type of output will be most appropriate for your client group and help inform improvements in your service. There are a variety of qualitative information-gathering techniques which use the written text; the most common of these is the **questionnaire**, but other options can also include the use of diaries and suggestion/complaint slips. Clearly, these will result in different types of data. For example, **suggestion/ complaint slips** may give a very one-sided view of a service but will be easy to collect. Diaries may rely on recall and memory and may not record the required information. As with all written tools, literacy and language can be a barrier; however, **video diaries or photographs** can be a fun and effective way of recording people's experiences.

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* www.cabinetoffice.gov.uk/social_exclusion_task_force.aspx

Some important quantitative data that can contribute to evaluations will almost certainly already exist. **Budget information**, for example, will provide data on income and expenditure. Other information that should be readily available is the **number of people referred to a service**, the **number of professionals employed**, the **number of volunteers** and the **number of services provided**. Some questions you may wish to ask are:

Cost

What does your intervention cost per user?

Productivity

How much work is completed within a defined period of time?

Utilisation

To what extent are the available services used? For example, if a family centre runs 10-week-long parenting programmes for groups of 10 people, there are 100 possible sessions. What are the attendance levels?

Volume of service

How many people have received a service from you over a given time period?

4.10 The 'Goldilocks' principle – the right amount of information in the right place at the right time

One of the dangers of evaluation is that we may collect, or be persuaded to collect:

- more information than we need;
- the wrong sort of information;
- information that will be out of date by the time we need it; and
- information as an excuse not to act.

> **Key message**
> All data collection costs money. Do not collect more than you need, and use all that you collect.

Many desk drawers, filing cabinets and computers are full of data that has been collected and never used. One of the most common mistakes is to collect large amounts of data with no clear plan for to how it will be analysed and who will analyse it. The hope that the data will speak for itself is rarely fulfilled. Whether we are constructing questionnaires or surveys, conducting interviews or designing databases, we should include no more questions or variables than are necessary to answer the questions we have. Do not ask questions to which you already know the answer.

Evaluations do not have to answer every question you may have about your service. It is better to have fewer questions that are answered properly than more questions that are only partially answered.

4.11 Analysing information

Any evaluation design needs to consider – in advance – how the data collected will be analysed. This means having the resources, the time and the necessary skills to accomplish the task – as well as a clear idea of what you plan to do with the results.

Analysing quantitative data

Data needs to be interpreted. In particular, analysis should draw out the key messages from all the information you have gathered and make recommendations about future service development. Interpreting evidence can be a difficult task, and you need to allow enough time for it – reading 20 questionnaires and comparing and summarising the answers to six questions can take several hours. It should be possible to summarise the quantitative information in terms of total responses.
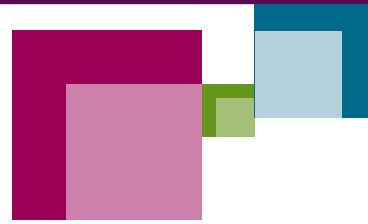
This will describe the material/responses in numerical terms, for example:

- How many families use a service per day/per week?
- How many children under five attend a play group?
- What is the average number of people using a drop-in advice service per week?

Some of this material may be used most effectively by displaying the information in bar charts, graphs or tables. You may also choose to use percentages, but be careful of this if your numbers are very small. If you do, you should always explain how many or how much would be 100%. Seven out of 10 people or 70 people out of 100 are both 70%. However, evidence based on what 70 people say, as opposed to what seven people say, will carry more weight. It is important that the basis of the information you are offering is clear.

Analysing qualitative information

Qualitative evidence may be more time-consuming to analyse than quantitative data. This needs to be factored in at the design stage.

Unpacking and interpreting evaluative material involves sifting through the findings and exploring their implications. You may have collected a wide range of very different opinions, especially about the quality of the process and outcomes, and in some circumstances you may find it difficult to draw conclusions. This problem may be resolved by looking for ways to group opinions together under broader themed headings or, if available, looking at previous related research findings.

Qualitative evidence is likely to provide many rich and descriptive quotes. Quotes can help to bring the participants' experience to 'life' and can often sum up unexpected outcomes. If using quotes, no identifiable details of the individual should be given unless permission has been sought and obtained (for example, using a consent form). If consent has not been obtained you should not give any identifiable details as to the source of the quote, but you should indicate the type of person who gave the response (for example, service user, volunteer, worker, manager). It is important to set out the information clearly so that the findings are coherent and understandable. The extent to which this is achieved may have a crucial impact on the credibility that the evaluation is subsequently given, and the extent to which findings are actioned.

Key messages
- Summarise the material into a series of points. Look for recurring points, noting how many times they appear and with what qualification and differences, if any.
- Aggregate the information by noting the most frequently occurring points and any other points that seem to be of particular importance, bearing in mind the context.
- Look back at your original measure of success and outcomes to help pick out what you need.
- Avoid being unduly influenced by a tiny number of either very positive or very critical comments.
- Try to establish the majority view.
- Check that your judgements are based on evidence from different categories of people involved with the project.

4.12 Reporting

A clear advantage of a written project report is that it provides a permanent record. It is important to establish at the outset for whom the report is being written, what purpose it is intended to serve – for example, to inform and/or persuade – and what general or specific actions or activities it is hoped will subsequently be undertaken.

It is not suggested that evaluation reports need to be lengthy. Indeed, brevity is to be preferred. It is also important to pay particular attention to the summary/conclusion and recommendations. Busy managers and decision makers are likely to read these sections first and form an initial – possibly lasting – assessment of the report's relevance. The most common weakness of project reports is that they include too much description and too few judgements.

Key message
Evaluation reports should:
• be short;
• avoid unbroken slabs of text;
• use tables and graphs;
• use bullet points;
• be judgemental; and
• state conclusions clearly.

4.13 It's not just about reports…

Dissemination needs to be considered at the planning stage so that adequate time and resources can be allocated. You should consider the most appropriate format(s) to use for communicating your message to the intended audience:

• Written report – long or short?
• Summaries for different audiences?
• Reports translated into different languages?
• Findings on tape?
• Large print or Braille reports?
• Verbal presentations?
• Conference for large numbers?
• Seminar for smaller numbers?
• Journal article?
• Use of the media?

Key message
Successful dissemination of results depends on careful planning. Results do not 'speak for themselves' – they need to compete with many other messages for the attention of stakeholders.
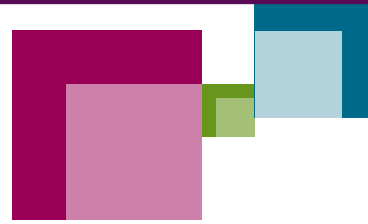
4.14 Effective dissemination

We often put a lot of effort into evaluating our work,
but less into sharing the knowledge that arises from it.

Key messages – effective dissemination

Target the right audience
Decide which organisations and what level of professionals need to know about your findings and plan accordingly.

Balance speed with usable results
If results are to influence decision making, they must be available to the right people at the right time.

Don't overload the audience with information
Give people only the information they need, and provide summaries.

Give a clear message
For your message to have an impact, it needs to be clear and understandable.

Make the findings relevant to current issues
Often, research has an impact because it has come at the right time and it is relevant to current practice issues.

Ensure stakeholder ownership
Involve your stakeholders throughout your evaluation, especially in drawing out the key recommendations, and they will be more likely to take the results on board.

Make the findings accessible
Make your evaluation findings accessible. Use a local newsletter, hold a seminar, put your findings on the web and visit organisations in person.

Make material attractive
Products should look attractive and be readable.

Have a clear strategy at the outset
When planning your evaluation, think about the end product you want and how you will disseminate it. Don't leave it to the end when you have run out of time, money and energy.

4.15 Conclusion

There is no inevitable relationship between research production, research dissemination and actual implementation. The last can be labour-intensive, easily diverted by more acute priorities, dependent on small numbers of champions and subject to drift and diversion. Despite being the most important part of the research-into-practice process, implementation programmes are often the least resourced, the least prestigious and the least rewarded. An infinite number of excuses can be found to delay any implementation process – lack of time, lack of resources, a need for yet more research, missing stakeholder groups, concerns about sustainability. When organisations which have embarked on evidence-informed change processes evaluate and document their experience, honestly highlighting successes and failures and disseminating the results, the learning that is generated for the wider community is likely to be of far greater use than that generated by academic studies alone. Evaluation should:

- be integral to service planning and development, not an afterthought;
- involve all relevant stakeholders;
- act as a trigger for learning, whether positive or negative; and
- be a catalyst for implementation.

> **Tell me more…**
> Links to online resources that provide more information about putting research into practice can be found in online resource: Implementation.*

* www.cabinetoffice.gov.uk/social_exclusion_task_force.aspx