

# Effective Interventions Unit

## Evaluation Guide 3: Designing an Evaluation

**WHAT IS THE PURPOSE OF THIS GUIDE?:** This is the third **Evaluation Guide** in the EIU Evaluation series. This Guide outlines three broad types of evaluation design; observational / descriptive, before and after, and comparative. We briefly discussed research methods for each of these designs and give examples from the drugs field.

**WHO SHOULD READ IT?:** anyone involved in planning, developing, delivering and evaluating services for drug users.

**WHY IS DESIGN IMPORTANT?:** The design of the evaluation is crucial because if it is inappropriate the evaluation may not provide the answers the stakeholders need. To decide upon evaluation design, you need to be clear about the main focus of the evaluation, the specific questions to address and the resources available.

### CONSIDERATIONS WHEN DESIGNING AN EVALUATION

There are many ways to design an evaluation. By 'design' we mean thinking about:

- **who** to include in the evaluation (e.g. all clients or a sample)
- **when** and **how often** the data will be collected
- **what** methods will be used to collect the data
- **whether comparison** with another group is appropriate and feasible

The appropriate design will largely depend upon:

- The main **focus** of the evaluation. For example, do you want to focus on the process of implementation (the way the project is organised) or on the outcomes that are achieved, or both?
- The **resources** available for the evaluation.
- The **specific question(s)** the evaluation wants to address.

The choice of design will also depend on the stage of the intervention (e.g. planning stage, pilot stage or implementation stage). For example, if the intervention is being piloted, it will be particularly important to focus on the implementation **process** (e.g. which staff do which jobs, where and how often they see clients, what services are provided and how long clients stay in contact).

If an intervention has already been piloted, evaluation may focus primarily on **outcomes**. Outcome evaluations might attempt to assess clients as they are leaving a service or track clients after they have left a service to follow up their progress. Alternatively, it may look at the impact of a prevention programme on the level of drug use and other risk behaviours in a target population

Definitions of 'process' and 'outcome' and related concepts can be found in **EIU Evaluation Guide 1**.

[http://www.drugmisuse.isdscotland.org/goodpractice/EIU\\_evaluationg1.pdf](http://www.drugmisuse.isdscotland.org/goodpractice/EIU_evaluationg1.pdf)

For further information on planning an evaluation please see **EIU Evaluation Guide 2**.

[http://www.drugmisuse.isdscotland.org/goodpractice/EIU\\_evaluationg2.pdf](http://www.drugmisuse.isdscotland.org/goodpractice/EIU_evaluationg2.pdf)

### TYPES OF EVALUATION DESIGN

This Guide groups evaluations under three broad types of design. Please note that these are broad categories. An evaluation can encompass more than one of these designs and there are others.

1. Descriptive
2. Before and After
3. Comparative

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## WHICH RESEARCH METHODS ARE USED?

All three types of evaluation design described in this Guide involve using both quantitative and qualitative research methods. Combining these approaches is considered by most social researchers to be the best way of maximising the range and depth of data collected for an evaluation.

**Quantitative** methods generally collect **numerical** data (through using questionnaires or by recording the number and nature of client contacts with services). The information that is collected as part of the **assessment** of a client is often useful to an evaluation. For example, the data may allow you to work out what progress clients have made towards the goals agreed in their care plan. Analysis of this information across a service would provide an indication of how effective the service has been in helping clients to attain their goals. Drug services often use **assessment tools** to help guide and record their interviews with clients. If compatible tools are used the analysis of the information - for research and evaluation purposes - will be more straightforward. A future EIU Evaluation Guide will describe the use of assessment information in evaluation in more detail.

**Qualitative** methods generally collect more detailed data on people's **perceptions, attitudes and experiences**. This allows a deeper understanding of these issues than would be possible from a quantitative approach such as a questionnaire. Frequently used qualitative methods include interviews, focus groups and observation. These may be undertaken with service providers and service users (or a mix of both). When running an interview or focus group the facilitator generally has a list of key questions or themes to address. For further information on qualitative research and examples of its use in the drugs field see:

- National Institute on Drug Abuse. Qualitative Methods in Drug Abuse and HIV Research [www.nida.nih.gov/pdf/monographs/157.pdf](http://www.nida.nih.gov/pdf/monographs/157.pdf)
- EMCDDA. Understanding and Responding to Drug Use: the Role of Qualitative Research <http://www.emcdda.org/infopoint/publications/monographs.shtml>

## 1. DESCRIPTIVE / OBSERVATIONAL EVALUATION DESIGNS

This type of evaluation **observes and describes** the intervention, and sometimes the implementation **process**. For example, the number or characteristics of clients that used a service and their experiences of that service. This type of evaluation can assess relatively quickly whether the intervention is reaching and retaining its target group and whether the target group is satisfied with the service. This evaluation design does not provide data on the impact of an intervention i.e. on outcomes (such as reducing drug use, reducing risk behaviour). It is often used at the **pilot** stage of an intervention when evaluation is sometimes referred to as **formative** (i.e. provides feedback to inform the future development of the intervention).

Data for the evaluation can often be collected using routine record keeping. Many services or projects may already be recording the required information, or could record some additional information quite easily by slightly changing existing record keeping practices. Sometimes additional **questionnaires, interviews or focus groups** may be used to obtain service users views of the service, or to find out service provider's views on the strengths and weaknesses of an intervention. These questionnaires can provide both quantitative and qualitative data by including both 'closed' and 'open' questions. 'Closed' questions ask for a set response (e.g. yes / no / don't know). 'Open' questions do not specify a particular answer.

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**Example: A needle exchange wants to conduct an evaluation to establish the number and nature of their clients and the number of needles exchanged. They are also interested in clients' views of the service.**

<b>Key Questions</b>	Who attends the needle exchange (gender, age)? How often do they come? How many needles are exchanged per session? How satisfied are service users?
<b>Method</b>	Routinely recording information on those attending using a record log. Interviews with service users on levels of satisfaction with the service.
<b>Strengths</b> <ul style="list-style-type: none"> <li>Quick, simple, low cost, easy to build into service procedures</li> <li>Establishes whether the intervention is reaching and retaining its target group.</li> <li>Issues raised by the service users may help you to improve the way the service is delivered.</li> </ul>	<b>Weaknesses</b> <ul style="list-style-type: none"> <li>Process rather than outcome focussed. This evaluation cannot tell whether the needle exchange helped to reduce needle sharing, or indeed HCV and HIV infection among the client group.</li> </ul>

### 2. BEFORE AND AFTER EVALUATION DESIGNS

In a before-after evaluation design, the main purpose is to assess what an intervention has achieved (in terms of its agreed aims and objectives) by **comparing the state of the target group before and after the intervention**. The same measurements are usually taken pre and post intervention (or at set periods throughout the intervention) to assess changes in client **outcomes**. For example; the level of drug use, the extent of needle sharing, the level of service use and the extent of physical and mental health problems.

Qualitative methods (interviews, focus groups) can also be built into this design to find out service users views of their status before and after (or during) the intervention. Similarly, some evaluations collect the views of family members and service providers. These may be carried out with a sample of respondents, rather than all respondents.

**Example: A methadone service compares the condition of clients before and after methadone detoxification. The service also wants to know the views of clients and their families on the impact of the intervention.**

<b>Key Questions</b>	Are clients reducing their drug use? Are clients reducing their risk behaviour? Are there improvements in clients' physical health? Are there improvements in clients' mental health? Are clients relationships with family and friends improving?
<b>Method</b>	Conduct assessment with client before methadone is prescribed and after the detoxification process is complete, using an assessment tool to record key information. Interviews with service users and their family/friends to obtain their views on the perceived impacts of methadone treatment.
<b>Strengths</b> <ul style="list-style-type: none"> <li>Can be quick, simple and relatively low cost</li> <li>Can (for the most part) be built into service procedures</li> </ul>	<b>Weaknesses</b> <ul style="list-style-type: none"> <li>Assumes that changes are due to the intervention - but this may not be the case.</li> <li>Clients moving in and out of the service can make this design a bit tricky. The evaluators must decide when a client can be described as 'new' (e.g. after 3 months of non- attendance) and the procedure to follow when clients 'drop out' of treatment.</li> </ul>

### 3. COMPARATIVE EVALUATION DESIGNS

A comparative evaluation aims to **compare two interventions** (perhaps using the same before and after measurements described above). It is a fairly common design for evaluations of new treatments or services. The new intervention is often compared with the standard or conventional intervention. This approach relies on both interventions remaining consistent throughout the evaluation period.

Evaluations with this design are carried out according to 'experimental' principles. This usually involves testing an idea and 'controlling' for influences other than the intervention (for example, age, sex, length of drug taking etc). These evaluations are more time-consuming and resource intensive because they often require larger numbers of respondents and often have more complex measures. It will be important to consider carefully how clients will be recruited and what the samples will look like. By sample we mean a group of clients selected from the total number of clients. Generally the two groups in the evaluation should be the same on a number of key variables (e.g. sex, age, type of drug use).

**Example: comparing clients receiving conventional methadone treatment with those receiving a new service combining methadone treatment and enhanced counselling services (including training/employment advice).**

<b>Key Questions</b>	Does the 'enhanced' service result in better client outcomes (e.g. reduction in drug use, reduction in risk behaviour, employability)?
<b>Method</b>	Repeated use of an assessment tool at baseline and regular follow-up (e.g. MAP) Repeated use of an assessment tool that measures 'employability' (e.g. Rickter) Qualitative interviews could be built into this design (e.g. with a sample of respondents in each group).
<b>Strengths</b> <ul style="list-style-type: none"> <li>• Outcome focussed.</li> <li>• Allows comparisons to be drawn.</li> </ul>	<b>Weaknesses</b> <ul style="list-style-type: none"> <li>• Both interventions need to be consistent throughout the evaluation period -this can be difficult in practice.</li> <li>• Client drop-out from the two interventions can cause difficulties when drawing conclusions. It is important to keep as many clients in the evaluation as possible.</li> </ul>

A comparative evaluation can be an 'experimental' trial if individuals in the study are **randomised**. The two groups must be **exactly** the same in all respects, apart from the fact that one group receives the intervention and the other is the 'control'. This is often described as a '**Randomised Controlled Trial**' (RCT). The main advantage of this design is that it rules out alternative explanations for change, allowing **causality** to be established (unlike in the other designs). However, this is a complex design and often unfeasible for ethical, practical and cost reasons. For example, an RCT usually requires a large sample size, specialist research input and significant resources to minimise clients dropping out of the study.

**IN SUMMARY**, after designing your evaluation you should be able to identify:

- Where, when and how often you will collect data for the evaluation
- Which method(s) you will use to collect your data
- Whether a comparison group is feasible and appropriate
- The strengths and weaknesses of the approach you have selected

Most importantly, you should be confident that the evaluation design you have chosen will give results that allow you to answer the questions you have about your service.

## FURTHER RESOURCES

N. Gilbert. **Researching Social Life** (1994)

G. Bouma. **Handbook of Social Science Research** (1999)

M. Denscombe. **The good research guide for small scale research projects** (1998).

WHO evaluation workbooks [www.who.int/substance\\_abuse/pubs Psychoactive drugs.htm](http://www.who.int/substance_abuse/pubs Psychoactive drugs.htm)

W.K. Kellogg Foundation Evaluation Handbook [www.wkkf.org/Documents/WKKF/EvaluationHandbook/](http://www.wkkf.org/Documents/WKKF/EvaluationHandbook/)

HEBS R&E toolkit (online late summer 2001) [www.hebs.com/research](http://www.hebs.com/research)

**EIU Evaluation Guide 1** resource list