

**Improving and Proving:
A Handbook for the evaluation of anti-doping
education programmes**

Barrie Houlihan and Sarah Melville
Institute of Sport and Leisure Policy and Institute of Youth Sport,
Loughborough University, UK

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Section 1: An Introduction to evaluation

Who is this evaluation handbook for?

This evaluation guide has been devised for managers responsible for the design and delivery of anti-doping education programmes.

Although the handbook has been designed for use by managers working in NADOs the methods and techniques outlined in the handbook will also be of value to education managers in International Federations and National Sport Organisations (NSOs).

Not only is the handbook intended to help you measure and evaluate the success of your education programme (see Section 2) it is also intended to guide the planning of education programmes (see Section 3).

This section will help you to:

- ➔ *develop an understanding of the purpose and importance of monitoring and evaluation*
- ➔ *begin to apply the principles of design, monitoring and evaluation to your own education programme*
- ➔ *identify and analyse the strengths and weaknesses of your education programme*

How to use the worksheets

The worksheets in Chapters 2 and 3 of this handbook have been designed to help you work through the key steps of programme evaluation and programme design in a straightforward way. They are supported by additional explanatory and illustrative material in the Appendix.

Each worksheet asks a number of questions designed to assist you in e.g. identifying the resources available within your organisation, collecting data about your education programmes and reporting the conclusions of your analysis to key partners.

You may find it useful to complete the worksheets as you work your way through the handbook and answering some of these questions may help you to clarify your own approach to evaluation.

You may also be able to use the worksheets as a means of engaging your domestic NSOs in the process of evaluation.

Design, Monitoring and evaluation

Design ...

Often anti-doping education programmes are taken 'off the shelf' or passed on from one organisation to another without careful consideration of whether they meet the

specific requirements of the issue or problem that needs to be addressed and context in which they will operate. Design is about clarifying:

- ➔ *what specific aspect (or aspects) of the doping problem is to be addressed?*
- ➔ *what is the particular target group or groups?*
- ➔ *what outcome / impact are you aiming for?*

Design is also about considering:

- ➔ *cultural sensitivity*
- ➔ *what is appropriate to the age / intelligence / experience of the target group*
- ➔ *what can be delivered with the available resources*

As a manager, it is important to allow yourselves time to step back from delivering education and spend some time assessing how well things are going and to consider:

- ➔ *what progress is being made towards your targets?*
- ➔ *which initiatives are working well?*
- ➔ *which initiatives are less successful?*
- ➔ *where is there room for improvement?*

In order to answer these questions it is necessary to undertake monitoring and evaluation.

Monitoring ...

Put simply, monitoring is a process designed to determine whether a programme, scheme or project is making progress towards its intended targets and aims. Monitoring is about establishing effective processes and regular activities that enable the collection of information about what is going on in an education programme and thus enable programmes to be adjusted to ensure continued impact.

Features of monitoring

- ➔ *A regular or continuous process*
- ➔ *The systematic gathering of data about the programme*
- ➔ *Concerned with establishing the pace of progress towards targets and objectives*
- ➔ *Not concerned with judging the success of the programme*

Evaluation ...

Evaluation is closely linked to monitoring. Evaluation is a process of looking at the data you have generated and considering whether or not your education programme is making the progress you had expected.

Definitions

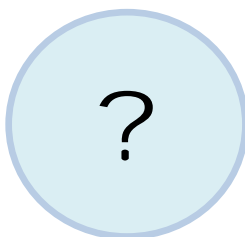
“Programme evaluation is the systematic collection, analysis and reporting of information about a programme to assist in decision making” **Ontario Government**

“The systematic examination and assessment of features of an initiative and its effects, in order to produce information that can be used by those who have an interest in its improvement or effectiveness”
World Health Organisation

Evaluation is:

- ➔ *An activity that involves making judgements about the pace of progress towards your targets and aims*
- ➔ *Interested in examples of current good practice and the lessons that can be learnt from them*
- ➔ *Concerned with making judgements about the quality of a programme*
- ➔ *Concerned with identifying the exact contribution the programme has made to the achievement of your aims*
- ➔ *Action oriented – it is concerned with the improvement of the programme*

What kinds of questions does evaluation ask?



- ➔ *Does the education programme work?*
- ➔ *Does it achieve what was intended?*
- ➔ *Does it provide value for money?*
- ➔ *Is it worth the resources (e.g. time and money) spent on it?*
- ➔ *Is it effective?*
- ➔ *Is it effective enough?*

For example ... *having offered all NSOs free anti-doping education seminars and having collected data about a) the NSOs which have taken up the offer, b) the number of seminars they have requested and c) attendance at seminars you can begin to determine whether you are reaching your target audience.*

Key questions ...

- ➔ *How many of your ‘high risk’ sports are you reaching?*
- ➔ *How many RTP athletes from the ‘high risk’ sports are you reaching?*

Why evaluate anti-doping education programmes?

There are two main reasons why the evaluation of anti-doping education programmes is important.

Evaluation to 'improve' (formative evaluation)

Evaluation is about the continuous improvement and refinement of your programmes to enable you to:

- ➔ assess their effectiveness and ensure that they have remained consistent with your aims and objectives
- ➔ identify early what is not working so that others do not make the same mistakes and give you the opportunity to modify or replace the programme
- ➔ identify examples of good practice that can be shared with other NADOs
- ➔ keep on track financially
- ➔ confirm that you are reaching your target groups / sports
- ➔ produce a robust evaluation which helps to motivate staff and celebrate success
- ➔ maintain the focus on the objectives of the anti-doping education programme

The political, economic and social environment within which anti-doping education programmes operate is constantly changing making formative evaluation essential. Regular formative evaluation helps NADOs make the best use of limited resources.

Evaluation to 'prove' (summative evaluation)

Evaluation plays an essential role in the broad assessment and 'measurement' of the success of your allocated anti-doping education programme. It enables you to:

- ➔ show that the funding has been used economically and effectively
- ➔ demonstrate what has happened as a result of your anti-doping education programme – e.g. the impact of your interventions upon athletes and support staff knowledge, values and behaviour
- ➔ show that you have made progress towards your stated aims, objectives and targets.
- ➔ demonstrate your NADO's achievements
- ➔ help build the evidence base for all anti-doping activity
- ➔ demonstrate efficient use of resources
- ➔ demonstrate the effectiveness of anti-doping education programmes

Section 2: A step-by-step guide to evaluating your anti-doping education programme

Introduction

This section presents a step-by-step guide and supporting worksheets to help in the evaluation of your anti-doping education programme.

The guide is intended to assist you in conducting an evaluation and offers guidance on:

- ➔ *planning for evaluation*
- ➔ *gathering your data*
- ➔ *making sense of your data*
- ➔ *turning your data into management information*

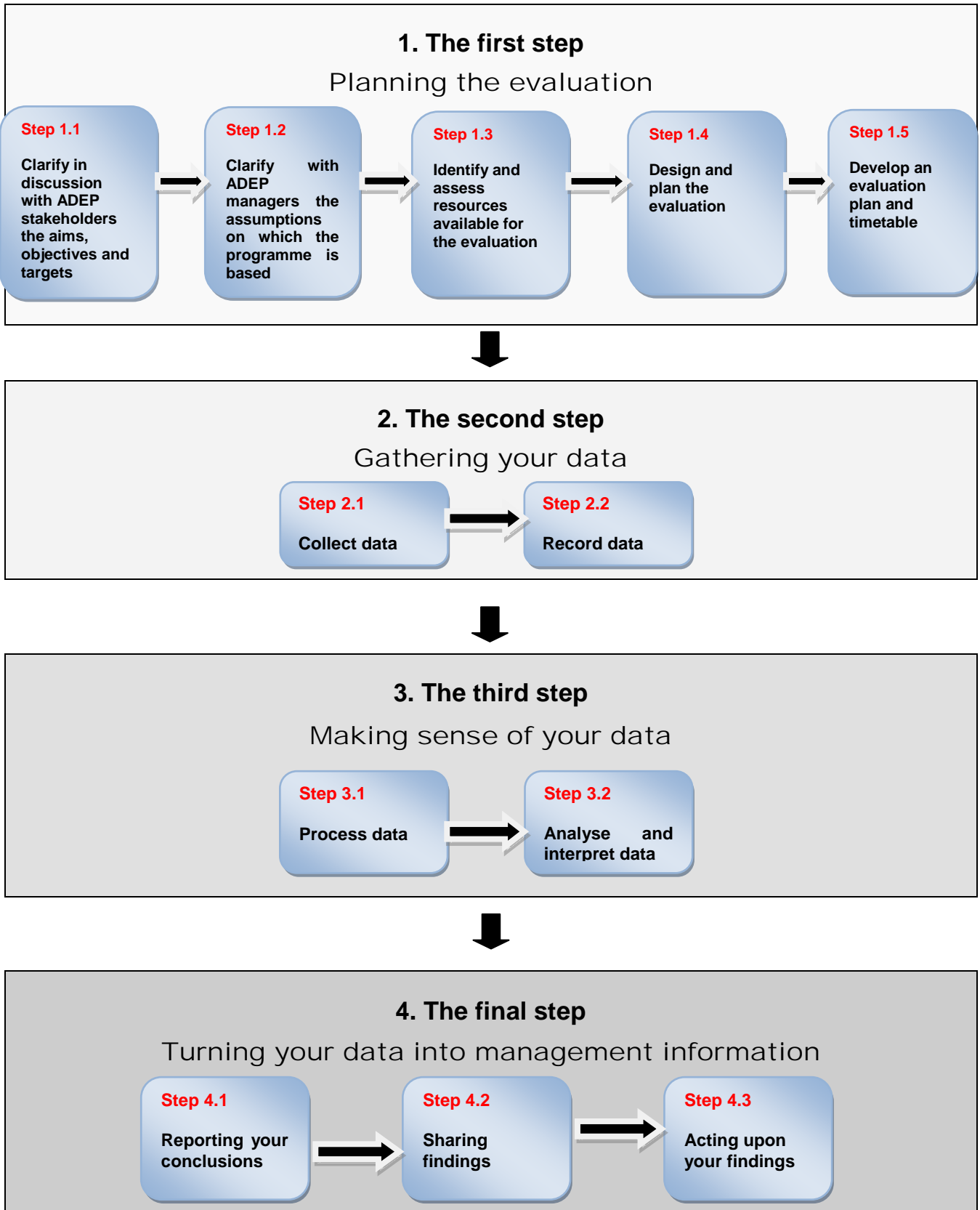
In the Appendix you will find a series of examples and illustrations which will:

- clarify the technical terms used in programme evaluation
- help you make decisions about the purpose and design of your evaluation; and
- ensure that once your evaluation is completed, you will have sufficient information to demonstrate to stakeholders and funders how successful your anti-doping education programme has been and the lessons you have learnt.

It is important to bear in mind that many of the aims, objectives and targets identified within your anti-doping education programme will only be fully achieved in the long-term. Therefore, this Handbook is based upon the assumption that evaluation will take place regularly, usually annually.

Annual assessment of progress towards long-term goals will enable any potential problems to be identified early in the lifetime of the programme. Equally, any early successes can be highlighted and good practice shared.

A summary of the worksheets



Steps 1.1 – 1.5

The first step: planning the evaluation

Planning and preparing the evaluation of your anti-doping education programme is an important task. The purpose of this section is to help you to get to a position where evaluation can begin, outlining the following necessary initial steps within the framework of a logic model:

- ➔ *identifying and assessing available resources*
- ➔ *developing and defining your aims, objectives and targets*
- ➔ *developing and deciding upon indicators of success*
- ➔ *drawing up a plan and timetable for your evaluation*

Important points to remember:

- ➔ a clear plan is an essential foundation for any evaluation process.
- ➔ the success of the evaluation will be enhanced by careful preparation.
- ➔ ask only the questions that apply to your programme and the aims of your programme.
- ➔ adapt and alter the plan to suit your needs.

Notes which provide advice and clarification on Steps 1.1 to 1.5 and all other Steps are provided in the Appendix

Steps 1.1 and 1.2

Developing and defining your aims, objectives and targets and clarifying your assumptions

1 Name of your programme.

2 Provide a brief description of your programme.

3 Describe the aim(s) of your programme and clarify the assumptions on which they are based.

1. What outcomes are you aiming to achieve?
2. Clarify the assumptions you have made which led you believe that your programme will deliver these outcomes
3. Describe your aims as precisely as possible and check that other stakeholders share your understanding of the aims
4. Consider whether your intended outcomes are short, medium or long term.

4a What are the specific objectives that your project is trying to achieve?

1. *These are more specific events or actions that will contribute towards your aims.*

4b For each objective clearly define a success indicator.

1. Success indicators should meet the SMART principle;
 - Specific
 - Measurable
 - Agreed
 - Realistic
 - Timely

NB Not all objectives are easily measurable. Often you have to select a 'success indicator' that is considered the most reliable rather than the one which is considered to be ideal.

5 Why are you carrying out your evaluation?

Are your needs to:

1. Gain an insight into the programme (i.e. formative evaluation)?
2. Identify strengths and weaknesses to improve the programme (i.e. formative evaluation)?
3. Assess the impact/effects of the programme (i.e. summative evaluation)?

6 Who will have overall responsibility for the evaluation?

1. Do they sufficient resources and seniority/authority?

7 Who will undertake the evaluation activities?

1. Do they sufficient resources and seniority/authority?

Step 1.3: Identifying and assessing resources

1 Identify the resources you have available for the evaluation.

- a. Time
- b. Money
- c. Staff (Employees/Volunteers)
- d. Equipment
- e. Knowledge/Skills/Expertise/Authority
- f. Other e.g. an established network of contacts in partner organisations

2 Identify the resources your partners have available for the evaluation. Determine whether partner organisations are willing to provide access to their resources.

- a. Time
- b. Money
- c. Staff (Employees/Volunteers)
- d. Equipment
- e. Knowledge/Skills/Expertise
- f. Other

3 Time:

- a. How much time do you need to gather information?
- b. How much time can you give to the evaluation?
- c. How much time will you need from partners?

4 Money:

- a. How much money will be needed to carry out the evaluation?
- b. How much money have you allocated for evaluation?
- c. How much money can partners provide?

5 Staff:

- a. In total, how many staff are able to assist?
- b. Do employees need to be trained?
- c. Can volunteers be trained to assist?
- d. Consider expenses involved in training.

6 Materials:

- a. What software or equipment do you need to collect, store and analyse data?

7 Knowledge/Skills/Expertise:

- a. Do the people responsible for the evaluation have sufficient knowledge, authority, skills and expertise to carry it out?
- b. Is there access to specific expertise to plan and support the evaluation?

Step 1.4:

Designing and planing the evaluation

1 Do you have an organisational structure that can support the collection of information?

2 Identify expected outcomes.
What do you expect to see, hear or measure?

3 Determine your evaluation questions.
Finances and time constraints may limit the type of information that can be gathered. Every programme is unique and so will be your evaluation.

Will your questions (or other forms of data collection) measure what you want to measure? For example some questions might measure athlete knowledge when you are really interested in changes in athletes attitudes.

4 The evaluation must be feasible and practical.

- a. Is it cost effective?
- b. Will it produce information of sufficient value that the resources expended will be justified?
- c. Are the processes and procedures of the evaluation monitored and described in enough detail that the adequacy of the information can be assessed?
- d. Have you any ethical considerations to bear in mind?
- e. How are you going to ensure participant confidentiality and data protection?

Step 1.5:

Developing an evaluation plan and timetable

1 Your evaluation plan needs to include details of the timing and development of all activities. It is essential to establish clear procedures.

It is important to consider:

- a. Evaluation design.
- b. Measurement methods.
- c. Pilot testing and revising measurement methods (if required).
- d. Collecting and processing data.
- e. Analysing the data findings.
- f. Writing the evaluation report.
- g. Disseminating results to those involved.

2 What time-scale is attached to the evaluation?

- a. For you.
- b. For stakeholders and partners.

3 Are there critical times, events and opportunities to undertake evaluation?
e.g. beginning or end of the season.

Steps 2.1 – 2.2

The second step: gathering your data

Important points to remember:

- ➔ only collect data you are going to use, and use all data that you collect.
- ➔ most evaluations collect too much data
- ➔ it is important to stay focussed on specific questions that you are trying to address.
- ➔ train staff to collect high quality data.
- ➔ pilot testing of instruments and methods is essential to determine whether they are effective, appropriate and not burdensome or unnecessarily intrusive.
- ➔ revise data collection strategies based on initial analysis.

Step 2.1: Collecting the data

1 Identify all possible sources of information.

- a. Programme participants
- b. Doping control staff
- c. NADOs
- d. Athlete support staff
- e. International federations
- f. Critics
- g. Topic area specialists

2 Carefully consider the most appropriate data collection method(s).

The main methods of data collection are;

- a. Questionnaires/ Surveys/ Checklists.
- b. Interviews.
- c. Records and Documents.
- d. Observations.

Think about:

- a. What information is essential (rather than simply interesting)?
- b. Which method is least time consuming and least costly?
- c. Which method is likely to provide the most relevant and accurate information?
- d. Will the information appear credible to decision makers and stakeholders?
- e. Will the method of data collection be suitable for the target group? Consider participants in terms of age, developmental level, language, and cultural background.
- f. Who has the ability to administer the method of data collection? Will training be needed?
- g. How will you follow up a survey to ensure a good response rate?
- h. How will the data collected be analysed? Think about the effort, time, cost and other resources involved.

3 Consider using a combination of data collection methods.

- a. This would enable findings to be checked, result in a more convincing evaluation and provide support for statements and conclusions.

4 What are the benefits of the chosen data collection method? What are the limitations?

- a. Is your method culturally acceptable to participants (e.g. mixed sex athlete focus groups)?
- b. Does it take account of ethics and confidentiality?
- c. Will data be collected from a wide range of people or just from the target group?
- d. Can evidence be collected without disrupting training or employment?
- e. Is the method flexible enough to reveal unexpected outcomes?

BENEFITS

LIMITATIONS

5 Data collection should be a continuous process. When will you collect data?

- a. Before/Baseline
- b. During.
- c. At the end of the year.

Step 2.2:

Recording the data

1 How is the data going to be recorded?

- a. Audio tape interviews.
- b. Written reports.
- c. Computerised documents.
- d. Video of focus group discussions.

2 Who will record the data?

- a. Are they well trained the appropriate recording methods?

3 Is the data going to be computerised and the results shared?

Steps 3.1 – 3.2:

The third step: making sense of your data

Important point to remember:

- ➔ the issues that are important to you will depend upon your aims, objectives and success indicators identified previously.

Step 3.1:

Processing the data

1 Process the quantitative data:

- a. Make copies of data and store the master copies securely for future reference.
- b. Tabulate the information.
- c. Compute any relevant statistics.
- d. Do you have access to specialists to perform complex statistical analysis, if not can you recruit volunteers or hire someone externally?

2 Process the qualitative data:

- a. Read through all the data.
- b. Organise comments/documents into similar categories, and label these categories.
- c. Attempt to identify patterns, associations and causal relationships. Look for recurring themes.
- d. Retain all documents for several years following the completion of the report in case they are needed for future reference.
- e. Do you have access to specialists in the analysis of qualitative data if required?

Step 3.2:
Analysing and interpreting the data

1 Analyse the data aiming to answer your evaluation needs and questions. Remind yourself why you undertook the evaluation in the first place.

2 Have you involved partners and stakeholders in the understanding and interpretation of findings?

3 What were the key findings?

4 Were there any unexpected outcomes? They must also be explored.

5 When analysing and interpreting the results it is important to look beyond the raw data and ask what the results mean. Attempt to put the information into perspective.

Consider the following:

- a. Do the results make sense?
- b. Compare the results with what you expected to find.
- c. Did you meet all success indicators?
- d. Have some success indicators been missed?
- e. What conclusions can you draw, referring back on the original evaluation questions?
- f. How sure are you that your intervention caused these results?
- g. Were there any other factors that could have contributed to the results?
- h. Consider how the programme could be improved.
- i. How will you report the conclusions and where will you target your recommendations.

Steps 4.1 – 4.3:

The final step: turning your data into management information

Important points to remember:

- it is essential to make your results known to stakeholders.
- following evaluation the next stage is to act upon the findings in programme with others.

Step 4.1:

Reporting your conclusions

1 Who will be responsible for writing the report?

2 The report must have structure. Consider including the following sections:

- a. Background and Purpose.
- b. Approach to evaluation.
- c. Key findings.
- d. Impact.
- e. Learning points.
- f. Future courses of action and recommendations.
- g. Strengths and weaknesses of the evaluation.

3 The key findings:

- a. What do the results show?
- b. Include all relevant results, non-significant as well as significant. It is important to learn from approaches that didn't work.
- c. Are the results similar to what you expected?
- d. Data that prompts new questions can only add credibility to the programme.
- e. Are there alternative explanations for your results?
- f. Whenever possible, analysis should be supported by findings of both quantitative and qualitative data. Sometimes they will be supportive of each other, other times they will provide checks and balances for findings.

4 What is the impact of these findings?

- a. What do these results mean for your anti-doping education programme?

5 Have you identified recommendations?

- a. List the implications of each recommendation.
- b. Which changes are most important and feasible to implement?
- c. How can you ensure these changes are implemented?

Step 4.2:

Sharing your findings

1 Who will benefit from sharing your evaluation findings?

The target audience of the evaluation report is a key consideration. Who is the evaluation report intended for?

- a. NADO staff.
- b. Government department
- c. Athletes
- d. IFs and NSOs.
- e. Stakeholders and partners
- f. Media.

2 How will you disseminate information to these people, and in how much detail?

- a. Paper copy
- b. Electronic e-mail version.
- c. Summary.
- d. The whole document.
- e. Press release

3 When will these results be communicated?

Step 4.3:
Acting upon your findings

1 Construct an action plan to implement the recommended changes.

Divide actions into short, medium and long term.
Identify who will take the lead on each recommendation.
Set a timetable for implementation of recommendations.

2 How will you persuade project partners to act upon recommendations?

Section 3: A guide to designing anti-doping education programmes

Introduction

This section provides a step-by-step guide to designing anti-doping education programmes. However, it does not provide the content of the anti-doping education programme, but outlines a process for programme design.

This section will assist you in:

- ➔ *clearly specifying programme objectives*
- ➔ *identifying an appropriate timescale*
- ➔ *ensuring that your objectives are appropriate to your resources*
- ➔ *identify the focus for evaluation*

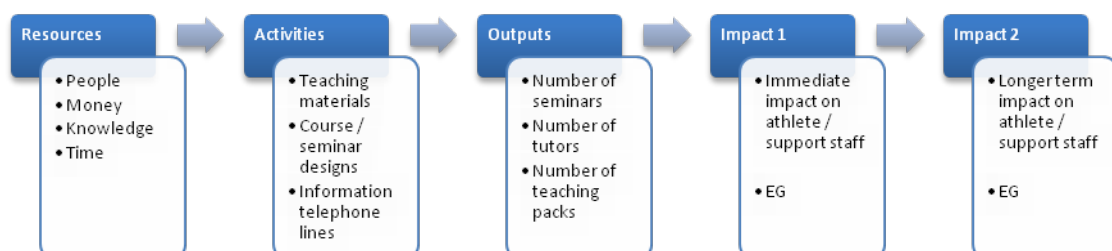
This section provides guidance on:

- ➔ *The value of using a logic model*
- ➔ *the logical steps in planning an anti-doping education programme*
- ➔ *how to construct a logic model for an anti-doping education programme*
- ➔ *linking your logic model to knowledge of behaviour*
- ➔ *logic models and evaluation*

A logic model is a diagram of how your anti-doping education programme works based on your assumptions about what will reinforce anti-doping values and what will change / deflect pro-doping behaviour. The model provides a 'road map of your program highlighting how it is expected to work' (Kellogg Foundation Group, Evaluation Handbook 1998:35).

What is a logic model?

A logic model is a plan of how you expect your anti-doping education programme to work, it is intended to aid understanding of the relationship between your resources, your programmes and your objectives:



Definition

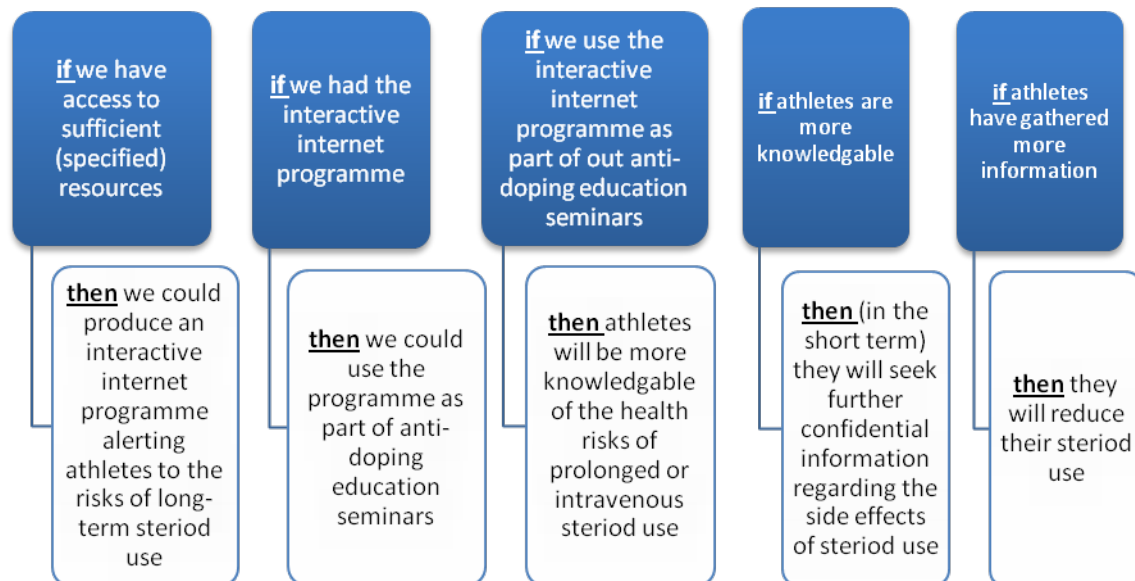
Resources / Inputs	•include the people, expertise / knowledge, materials finance, administrative and organisational support needed to develop activities
Activities	•are the processes, events and actions produced with the help of your resources
Outputs	•are the number of activities (seminars, resource packs, training events etc) produced
Impact (Short Term, 0-1 year)	•refers to the more immediate changes in behaviour, knowledge and values that you expect to occur
Impact (Medium Term, 1-3 years)	•builds on the immediate impact and contributes to long term impact
Impact (Long Term, 3 years +)	•refers to ther ultimate aim set for your project

The value of using a logic model to plan your education intervention

Logic models help you to:

- ➔ plan systematically for the use of resources
- ➔ create a shared understanding about the goals and methods of achieving those goals
- ➔ encourage project planning teams to make clear the assumptions which underpin their choice of resources and activities
- ➔ collect relevant data in order to monitor and evaluate programmes
- ➔ adjust programmes in the light of evaluation data

Logic models are a series of 'if' ... 'then' assumptions. For example (related to the problem of steroid use):

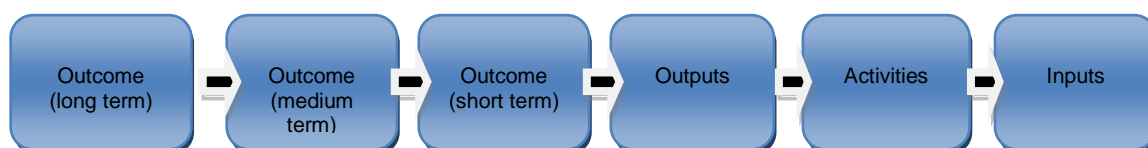


Each one of these 'if ... then' statements is an opportunity for the assumptions to be challenged – and many of the assumptions in the above example do need to be challenged.

Logic models tend to focus on a) the assumption which underpin programme design, b) the nature of the expected outcomes and their timescale and sequences, and c) the activities included in a programme.

- ➔ *the focus is less on **what** your programme will do than on **how** and **why** it will have an impact*
- ➔ *the focus is also on making explicit the underlying theory of change that your programme is based on and determining whether it is robust?*

A step by step guide to planning an anti-doping education programme

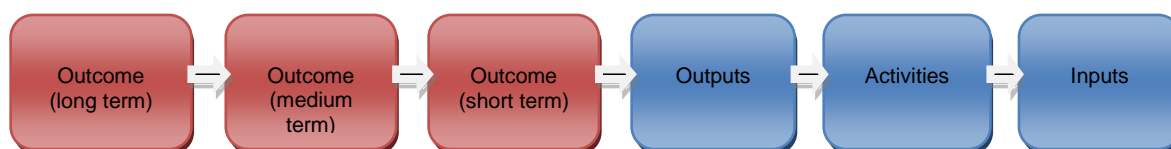


Before you can plan your programme you need to ask one central question which is 'Who are the stakeholders with an interest in this programme and its outcomes?'. Stakeholders might be funders, delivery partners, governments, expert groups etc. The first task is therefore to list your stakeholders and then ensure that they are part of the process outlined in this section of the Handbook. The list should indicate why they are important stakeholders. For example, does the programme rely on their funding, their expert knowledge, their cooperation (in gaining access to athletes) or their administrative capacity?

List your key stakeholders and their importance:

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

Step One: State the outcomes you want to achieve



Possible outcomes could include:

- reduce the number of missed tests
- increase awareness of the risks of using supplements
- increase knowledge of the therapeutic use exemption regulations
- increase the quality of anti-doping educational material for young athletes
- increase the cultural sensitivity of educational material

All of the above are laudable outcomes, but they require further clarification because:

- they are all **too vague regarding the extent of desired change** and, wherever possible, need to specify the amount of reduction or increase to be achieved
- most are also too vague insofar as they are **open to a wide variety of interpretations**. For example does 'awareness' mean a general knowledge that supplements can sometimes be contaminated with prohibited substances or does it mean that there is a more detailed knowledge of the risks to health, of committing a doping violation, of indirectly encouraging younger athletes to experiment with supplements etc.
- **measuring degrees of change is very challenging**. For example, change in the degree of 'cultural sensitivity' is hard to measure objectively.

Discussion between stakeholders at this early stage of programme planning is valuable as it:

- enables the clarification of the desired outcomes. For example, in relation to the objective to 'increase awareness of the risks of using supplements' the programme would benefit from clarification of the following:
 - is it all supplements or specific types?
 - is it all risks or a specific category of risk?
 - how will 'awareness' be measured?
 - is the target group all athletes, only high performance athletes, only certain sports, only certain age groups etc?
 - when should the outcomes of the anti-doping education programme become apparent?
 - can outcomes be divided between short, medium and long term?
- Usually results in more effective communication between stakeholders and a stronger commitment to the objectives of the programme

List the agreed long term outcomes:

- 1.
- 2.
- 3.

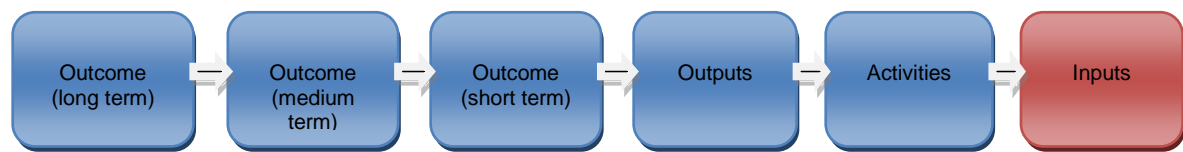
List the agreed medium term outcomes:

- 1.
- 2.
- 3.

List the agreed short term outcomes:

- 1.
- 2.
- 3.

Step Two: Identify the inputs you have available



What are the inputs that are available to the programme team? Inputs include:

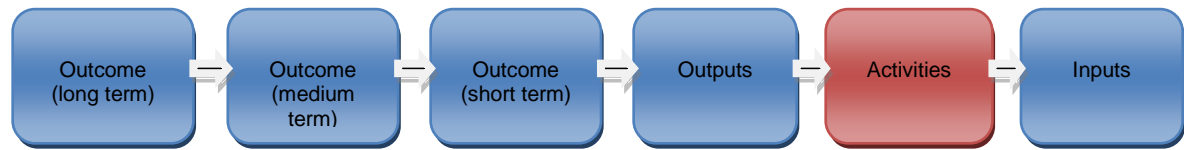
- **Money.** Money will be needed for the development, production, distribution and delivery of educational activities. Is the budget sufficient? Has a careful costing been undertaken?
- **Staff.** Is it clear who will take responsibility for leading the programme? Is it also clear who (and how many) will provide support to the person leading the project?
- **Expertise.** Does the necessary expertise lie within the organisation?
- **Administrative support.** Does the organisation have the administrative capacity to, for example, organise training events, book venues, manage the printing of material, exercise control of costs etc?

As you are identifying the resources that you have available you need to consider whether they are likely to be adequate to achieve your intended outcomes. However, this will become clearer once you have completed Step Three.

List the agreed inputs allocated for the programme:

1. Money (how much, over what period, how secure ...?)
2. Staff (who, how many, where located?)
3. Expertise (what expertise is required: web design, marketing, psychology and when is it required?)
4. Administrative support (how much, how skilled ...?)

Step Three: Decide the activities that will be produced by the inputs



Once you have identified the available resources you need to ask a number of questions, the most important of which is:

- On the basis of what we know about effective ways to tackle this problem what particular activities should we plan?

The answer to this question is crucial. The **evidence for your activities may be based on research or it may be based on professional judgement/practitioner experience**. An education programme may for example be based on established theories of health behaviour change such as social cognition theory (which emphasises the importance of the interaction between three factors: environment, people and behaviour) or the transtheoretical model (which focuses on the decision making of the individual rather than on social or biological influences on behaviour). Because most theoretical models have been developed outside the field of anti-doping education one should not discount the experience of practitioners.

What is to be avoided at all costs is simply to assume that previously developed activities should be repeated. Previous activities may be the best way to achieve the desired outcomes but they need to be challenged in the light of research evidence and practitioner experience.

You need to feel confident that you know **why** and **how** your activities (anti-doping education programme) are intended to work.

List the activities that will be included in the programme (and the evidence base for their inclusion):

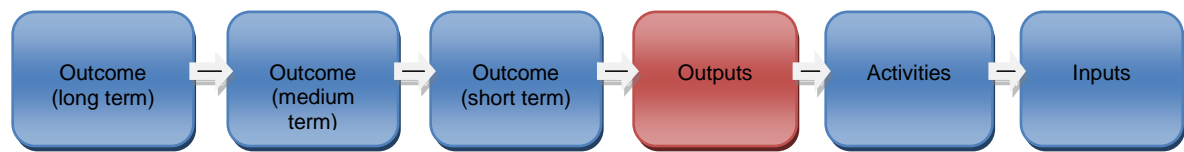
1.

2.

3.

4.

Step Four: Determine the volume of outputs that can be produced based on the preferred activities and the inputs available



Once a decision has been made regarding the preferred activities (for example a set of role play exercises designed to strengthen the capacity of young athletes to refuse drugs) you need to ask:

- 'With the inputs we have available can we produce the necessary outputs (i.e. the preferred activities in sufficient quantity and to the required quality)?'

If the answer is negative you will need to increase the inputs, design a 'second best' set of activities, or modify your outcome targets.

List the agreed outputs for the programme:

1.

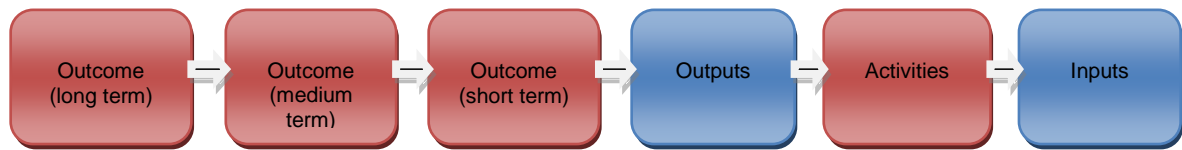
2.

3.

4.

.

Step Five: Decide how you will evaluate the impact of your activities on intended outcomes



While logic models are a powerful programme planning tool their primary value is as a tool for programme evaluation. However, using a logic model to plan a programme often helps identify the most effective means of providing both formative and summative evaluation and also identify the appropriate timing of the evaluation.

Unlike the very simple logic model described in this section most models will be more complicated as suggested in Figures 1 and 2.

Figure 1: Logic model: Anti-doping education

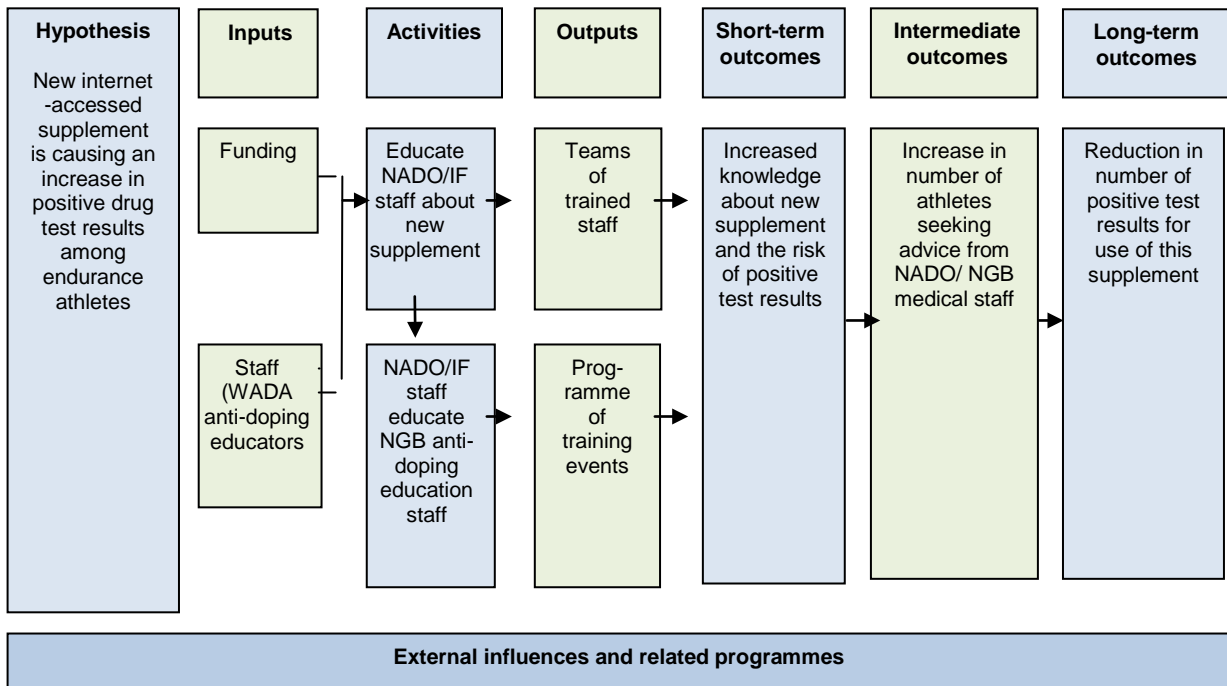
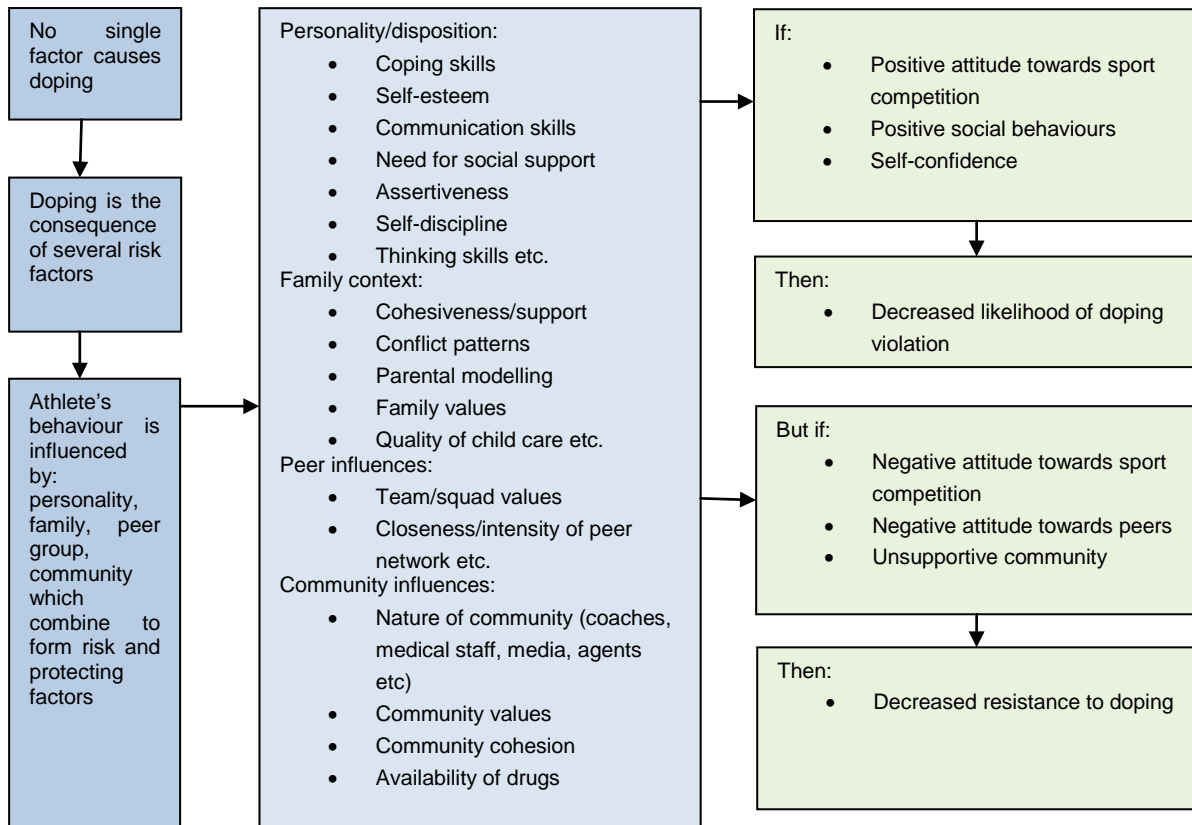
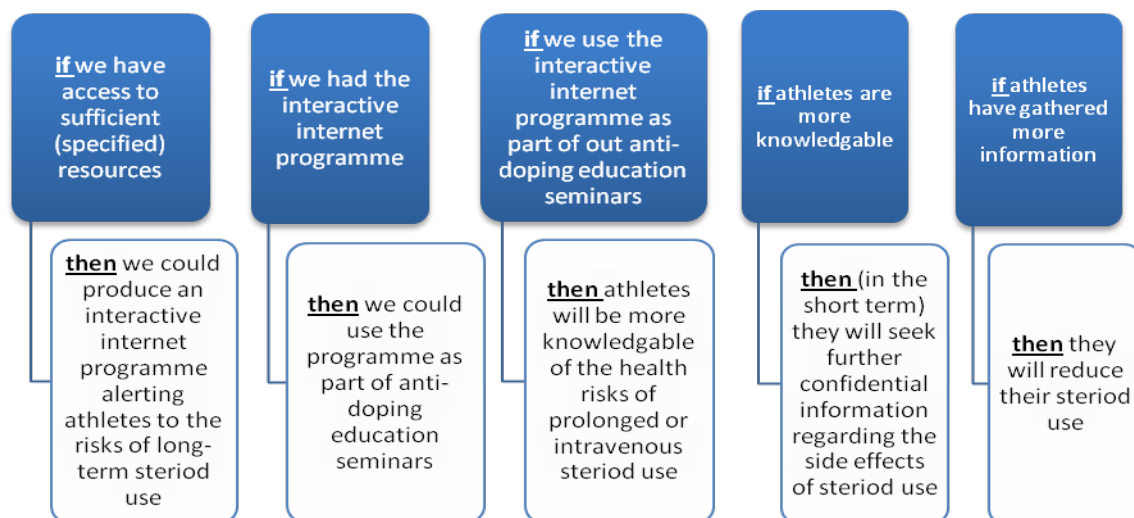


Figure 2: A more thorough logic map designed to help identify the range of potential activities (programmes) and how they might link to outcomes



As mentioned in the introduction to this Section logic models are a series of 'if' ... 'then' assumptions. In other words each arrow in Figures 1 and 2 above are based on 'if' – 'then' assumptions and in an evaluation they need to rigorously challenged and tested. In order to begin the process of planning the evaluation of your programme use the model below to construct your own set of 'if' – 'then' statements and consider how they might be tested/challenged.

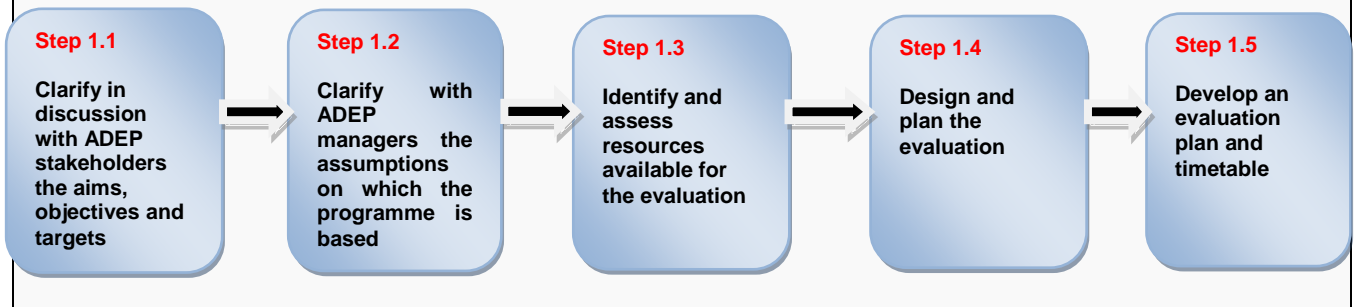


Once you have completed this initial task you should then return to Chapter 2 and use the set of worksheets to begin the evaluation process.

Appendix: Notes to guide the completion of the worksheets in section 2

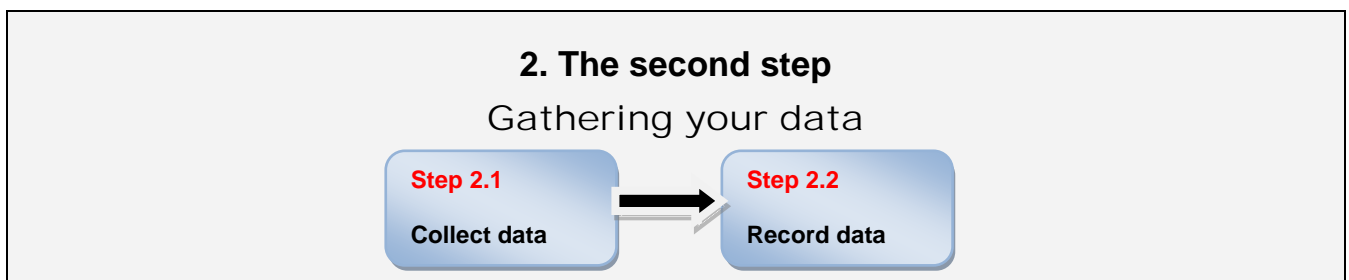
1. The first step

Planning the evaluation



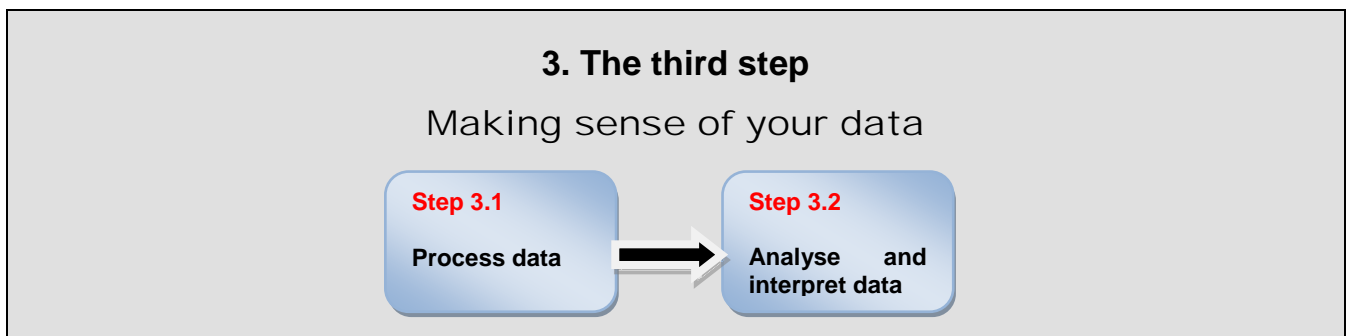
2. The second step

Gathering your data



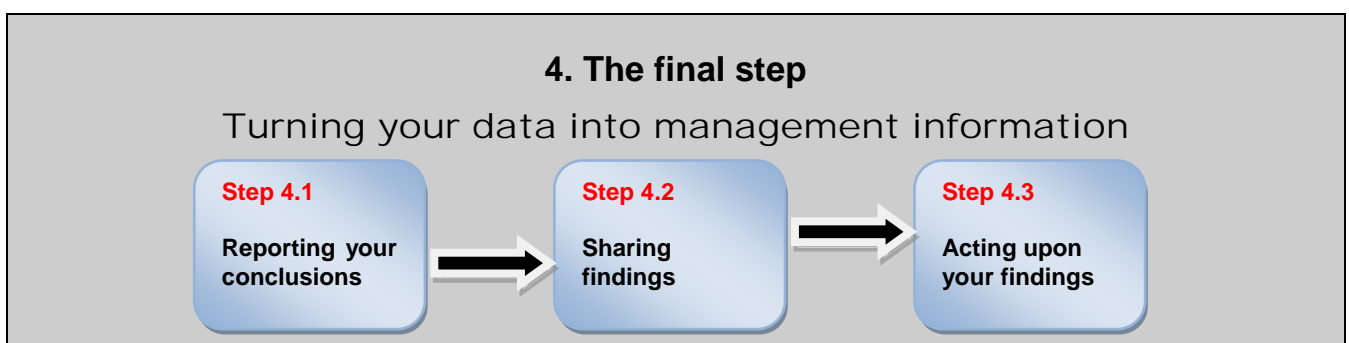
3. The third step

Making sense of your data



4. The final step

Turning your data into management information



Steps 1.1 – 1.5

The first step: planning the evaluation

Important points to remember:

- a clear plan is an essential foundation for any evaluation process.
- the success of the evaluation will be enhanced by careful preparation.
- ask only the questions that apply to your programme and the aims of your programme.
- adapt and alter the plan to suit your needs.

Step 1.1:

Developing and defining your aims, objectives and targets

The identification and agreement on aims should be straightforward, but it is often a source of tension and confusion as different stakeholders might have different (and sometimes conflicting) aims for the same programme. It is also often the case that programme design and implementation takes place before the aims have been agreed.

For example for aims for the development of an internet based interactive educational tool might be:

- to impress WADA with the commitment shown by your NADO
- to reach a particular target group of young athletes
- to leverage additional funding from your government
- to use up a budget at the end of the financial year
- to support a series of anti-doping seminars
- to replace a series of anti-doping seminars
-

Because there might be a variety of overt and covert aims some of which might be competing it is consequently important that, as far as it is possible, there is an agreed statement of aims on which the evaluation can be based.

Developing and defining your aims, objectives and targets

One of the main purposes of the evaluation process is to ensure that sufficient evidence is collected to identify whether or not the anti-doping education programme has met its aims, objectives and targets.

To plan your evaluation successfully and effectively it is essential that the aims, objectives and targets of the programme are clear from the outset. Put simply, this means clearly identifying what your programme hopes to achieve.

It is also important to establish aims, objectives and targets that can be 'measured' so that you can properly assess the progress of your programme.

What are aims, objectives and targets?

AIMS

Aims are the desired outcomes/impacts of your programme and may consist of general statements of intent, e.g.:

- ➔ *to improve the level of understanding of the doping control process*
- ➔ *to reduce the number of missed tests*
- ➔ *to increase the level of support for the whereabouts system.*

However, aims may also be more precise, e.g.

- ➔ *to reduce by 20% the number of missed tests*
- ➔ *to ensure that 90% of NSOs have education programmes designed specifically for their development squad*

OBJECTIVES

Objectives are the actions that need to be taken to achieve programme aims and link Resources and Activities in the logic model.

If one stated aim of your programme is to achieve greater understanding and support for the whereabouts system the objectives might include:

- ➔ *identifying the aspects of the whereabouts system that cause concern or confusion among athletes*
- ➔ *undertaking an audit of the existing means of communicating with athletes regarding the whereabouts system*
- ➔ *identify the forms of communication adopted by other leading anti-doping countries*
- ➔ *establish the cost of using a range of media for communication/education*

TARGETS

Targets are milestones on the route to the achievement of programme aims and objectives and are often expressed in numerical terms. Targets are part of the statement of Impacts in the logic model.

Examples of possible targets:

- ➔ *To increase the proportion of NSOs delivering seminars/workshops on the whereabouts system to 80% in the next 12 months*
- ➔ *To run two seminars on how to promote the 'spirit of sport' for NSO anti-doping officers in the next 3 months*
- ➔ *To design and produce whereabouts education material in two formats e.g. internet and paper within 6 months*

What are your aims, objectives and targets?

Although your aim, as a NADO, is the successful implementation of the World Anti-Doping Code you will also have other aims, objectives and targets related to the particular context in which you work and the most pressing issues within that context. Your most pressing issues might relate to specific sports, a particular age group, or particular elements of the Code. You might also distinguish between strategic and operational aims, objectives and targets:

Examples of aims:

- Strategic short/medium term aims:
 - To get anti-doping education topics included in the university coaching curriculum
- Strategic long term aims:
 - To get anti-doping education and sports ethics themes included in the high school curriculum
- Operational short/medium term aims:
 - To deliver annual update/refresher training to anti-doping officers in all high and medium risk sports
- Operational long term aims:
 - To build capacity and anti-doping education awareness among volunteer coaches in minor sports

Developing and deciding upon indicators of success

Developing and defining indicators of success at the planning stage of your evaluation is essential. If these are not clearly stated from the outset there is a danger that the impact of the programme will go unrecorded.

Having identified and defined your programme's aims, objectives and targets you need to establish your success indicators.

Each objective should have clearly defined targets from which success indicators can be developed to enable you to measure the impact that your programme is having.

You are likely to have a number of success indicators for each objective and these may change from year to year as they are achieved.

What are success indicators?

Success indicators measure the extent to which your programme is meeting its targets

Targets and success indicators should be SMART:

Specific

Indicators, like targets, should not be vague. Be as precise as possible. For example, rather than stating 'athletes or elite athletes', ask yourself which specific groups of athletes you are interested in targeting e.g. athletes in youth development squads, athletes in a particular sport.

Measurable

Measurable does not mean that it should be easy to measure. But it does mean that it must be possible to tell whether or not, or to what extent, the target has been achieved. For example, a target to '**double** the level of commitment' by RTP athletes to drug-free sport is impossible to assess as the amount of commitment a person possesses is so difficult to measure. However, the target to **increase the by 50%** the number of RTP athletes willing to be anti-doping ambassadors for their sport is more easily measurable.

Attainable

Indicators are only useful if it is possible to recognise that they have been achieved.

Realistic

Targets should be stretching, but also realistic.

Time Limited

You need to clearly state the timescale over which you will achieve you targets.

Step 1.2:

Clarifying the assumptions on which the anti-doping education programme is based

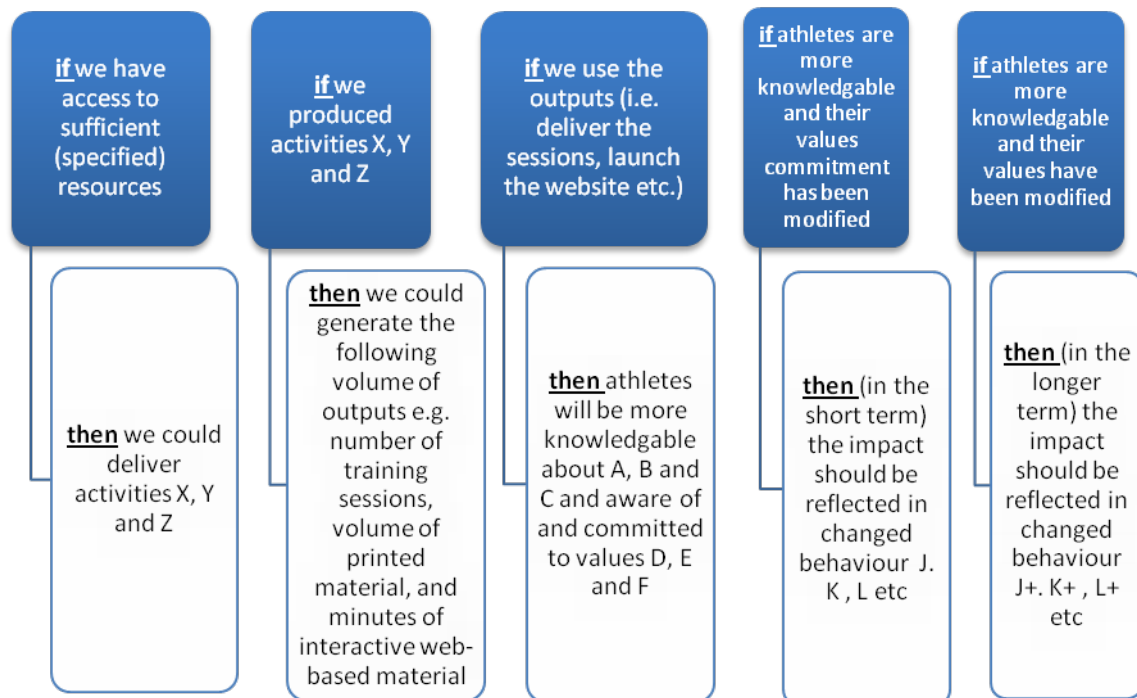
Logic models tend to focus on:

- the assumptions which underpin programme design
- the nature of the expected outcomes and their timescale and sequences, and
- the activities included in a programme

You could use the 'if... then' diagram below to help clarify your assumptions. Remember that each 'if ... then' statement has to be challenged.

What is the evidence that there is a causal relationship between each 'if ... then' statement?

- Is the evidence based on research e.g. by psychologists who have researched behavioural change or educationalists who have research learning?
- Is the evidence based on practitioner experience?
- How transferable is the evidence between contexts i.e. different sports, cultural contexts and socio-economic contexts



Each one of these 'if.... then' statements is an opportunity for the assumptions to be challenged – and many of the assumptions in the above example do need to be challenged. For example you could ask:

- What is the evidence that the use of the specified resources leads to the successful production of the activities that you require?
- Can the activities be generated in sufficient quantities and at an appropriate level of quality to meet the requirements of the education programme e.g. number of publications, workshop sessions, one to one meetings etc?
- What is the basis for assuming that activities X, Y and Z will lead to knowledge increase A, B and C and to awareness of values D, E and F? How robust is the evidence? How confident are you that the causal link will be transferable to the anti-doping education context?

Step 1.3:

Identifying and assessing available resources

Successful evaluations depend on the availability of suitable resources and their appropriate use. One way to begin this step in the evaluation is to identify the *ideal* quantity and mix of resources and then list the resources that are likely to be available i.e. the *realistic* quantity and mix of resources.

Key resources will include:

- Money (to buy external expertise and for printing, web design, travel etc.)
- Expertise (staff experienced in undertaking evaluations or for specific tasks such as questionnaire design)
- Time (when is the evaluation required?)
- Administrative support

There may be a considerable gap between the ideal quantity and mix of resources and those that are realistically available. As a result it may be that you have to set more modest goals for your evaluation. The biggest mistake would be to try to complete an ambitious evaluation with inadequate resources.

Step 1.4: Designing and planning the evaluation

In order to undertake any evaluation you will need resources – money, time, skills and people to do it. It is important to reflect on the available resources in advance, identifying existing resources and any potential areas of difficulty.

To ensure that you are fully prepared for evaluation, it is a good idea to have addressed the following questions:

Who is responsible for the evaluation?

Responsibility for leading/coordinating the evaluation should be agreed at the beginning of the evaluation.

Many people from different organisations may be usefully involved in evaluation.

Responsibility for different activities may be shared around.

But one person should have responsibility for the overall management of the evaluation.

REMEMBER

You may want to give leadership of the anti-doping education programme evaluation to the programme manager, but it may also be a good idea to bring in someone from outside the education section as a 'fresh pair of eyes'

Who should undertake the evaluation?

Determine whether you have the expertise and resources to undertake your own evaluation.

Decide if it is feasible for you to carry out all of the evaluation.

You may decide to enlist the help of others to monitor your anti-doping education programme, leaving you to conduct the evaluation.

If you are fortunate and have sufficient resources you may be able to involve an external agency.

What impact will stakeholders and partners have on the evaluation?

Be clear about who the partners and stakeholders are.

Although these organisations may be working together, there may be different points of view about the purpose of the anti-doping education programme.

These different points of view will influence how they view the purpose of the evaluation and what they want to find out.

What resources are available for the evaluation?

Identify exactly what resources you and your partners have available for this evaluation.

REMEMBER

You do not have to undertake all of the evaluation on your own.

There are others who can help you including:

- ***Colleagues from other departments***
- ***Academics***

REMEMBER

Discussing the objectives of your programme with partners (such as athletes, NSOs and the NOC for example) will help clarify the focus of the evaluation

RESOURCES

- ***Money***
- ***Staff***
- ***Equipment***
- ***Time***
- ***Expertise***

Step 1.5:

Drawing up a plan and timetable for your evaluation

Conducting evaluation takes time and requires resources. It is essential that you include specific evaluation activities and steps when planning your timetable.

You will need a plan that includes details of the timing and development of:

- **evaluation design**
- **selecting data collection methods**
- **collecting data**
- **processing and analysing data**
- **writing evaluation reports**
- **sharing the results with those involved in your organisation**
- **presenting your findings to managers, stakeholders and partners**

You will also need to consider some of the questions that have already been addressed in this handbook:

- ➔ *who is responsible for the evaluation?*
- ➔ *who should undertake the evaluation?*
- ➔ *what impact will stakeholders and partners have on the evaluation?*
- ➔ *what resources are available for the evaluation?*

The second step: gathering your data

Step 2.1: Data Collection

The purpose of this section is to help you as you plan and undertake data collection about your programme. This section discusses and provides advice about:

- ➔ *data*
- ➔ *different ways of gathering data*
- ➔ *selecting a data collection strategy and collecting your data*

Data¹

Before planning your data collection strategy, it is a good idea to look at a definition of what data is.

What is 'data'?

Data is selected information or evidence sometimes in numerical form and sometimes in the form of opinions, understandings and experiences, that is used as a basis from which to establish facts and draw conclusions about impact.

Different ways of gathering data

There are many different ways of collecting and gathering data:

- ➔ Tracking documents/forms/records
- ➔ Interviews
- ➔ Discussion/focus groups
- ➔ Questionnaires
- ➔ Observation
- ➔ Feedback from athletes, educators etc
- ➔ Diaries/journals
- ➔ Surveys
- ➔ Comments boxes

¹ Because the word 'data' is plural, the correct grammatical phrasing would be 'data are...'. However, colloquially 'data' is often treated as though it refers to 'a set of data'. Consequently 'data' in this handbook is treated as singular.

In order to evaluate your programme effectively, you will need to collect data that relates to the aims, objectives and targets discussed in the previous section. These should include:

- **Baseline Data** – It is important to gather data about the education provision that existed **before** your anti-doping education programme was introduced. It is very useful to have this kind of data. Without it, it will be difficult for you to show what has changed as a result of your programme.
- **Periodic Data** – It is also important to gather, at regular intervals, data that relate to the aims, objectives and targets of your programme. This kind of **regular and periodic** data collection is necessary to demonstrate the impact your programme is having and the progress you are making towards your targets.

An example of gathering baseline and periodic data related to programme outputs

Aim	Objective	Target
To reduce the number of doping violations among young athletes (<16 years)	To increase the number of international federations that have high quality anti-doping education programmes for young (<16 years) athletes	90% of Olympic international federations which support/organise youth competitions to have delivered at least one programme within 12 months

In order to evaluate the progress that your programme is making towards this target you need to collect data which recorded:

1. The specific criteria by which an anti-doping education programme would be considered 'high quality'
2. the number of international federations that currently have an anti-doping education programme designed specifically for young athletes
3. identify the number of these programmes that are high quality as defined in 1
4. the number of international federations that have an anti-doping education programme designed specifically for young athletes in 12 months time
5. identify the number of these programmes that are high quality as defined in 1

An example of gathering baseline and periodic data related to programme impact

Aim	Objective	Target
To reduce the number of doping violations caused by missed tests	To increase athletes' knowledge of whereabouts information provision	That the IFs of five higher risk sports have a plan in place to ensure that the NSOs in their ten most important countries have developed an education strategy for athletes who have missed one test

In order to evaluate the progress towards this aim and target you would need to:

1. gather information from the five selected international federations about the number of athletes who missed one test and the number who then missed a second test in a specified 12 month period (baseline data)
2. gather information from the five selected international federations about the number of athletes who have missed one test in the previous six months and the date of the missed tests
3. receive details of the education strategy for preventing a second missed test and the date it was delivered to the athletes referred to in 2 above
4. in 12 months time collect data about any second missed tests in relation to the athletes referred to in 2 above



These different ways can be grouped together dependent on **what kind of information** they provide:

Two different kinds of data collection methods

Quantitative methods – provide information which is quantifiable and generalisable, but which often lacks detail and depth (if the aim is to understand motives and opinions). The data that is produced by these methods is typically represented numerically and analysed through the use of statistical tests.

Qualitative methods – provide in-depth data about a particular subject or topic. These methods produce detailed descriptions and explanations of the topic or subject being studied rather than providing or analysing statistics. The extent to which qualitative methods are generalisable is limited.

Some research will use a combination of the two methods – referred to as a **Mixed methods** approach.

Quantitative methods will provide you with **numbers** that can be used to evaluate progress towards your aims, objectives and targets:

For example – A RECORD OF ATTENDANCE at anti-doping education seminars or other events will provide the basis for calculating the proportion of RTP athletes who have received anti-doping education across different sports, age groups, career stage etc.

Qualitative methods will provide you with data in the form of opinions and views:

For example – A FOCUS GROUP involving RTP athletes from a developing country might report on the particular problems they experience in maintaining an accurate and up to date whereabouts record due, for example, to limited access to the internet.

Below is a table that outlines some of the advantages and disadvantages of a number of the most common methods of data collection. No method of data collection is without potential drawbacks.

Method	Purpose	Advantages	Disadvantages
<p>Interviews</p> <p>Face to face or telephone dialogue in which the participant is asked a series of structured questions</p>	<p>To develop a better understanding of attitudes, views, opinions; to explore personal, complex, sensitive issues</p>	<p>Confidential setting; peer influence is eliminated; detailed information provided; opportunity to explore unexpected issues</p>	<p>Expensive (time, cost) to implement and analyse; potential for interviewer bias; can be difficult to analyse; results are not usually generalisable</p>
<p>Discussion/focus groups</p> <p>Recorded semi-structured discussion in groups managed by a facilitator</p>	<p>To gather in-depth information and develop better understanding of attitudes and opinions on a particular topic</p>	<p>Provides in-depth information; fairly straightforward process; can be inexpensive to implement; group format can feel less threatening to some individuals</p>	<p>Group members may influence each other; group dynamics may be difficult to manage; can be difficult to analyse; results are not easily generalisable</p>
<p>Questionnaires</p> <p>Structured series of questions which can be completed on-line, by mail or face to face</p>	<p>To obtain quantifiable, generalisable information from a large number of individuals within a short time period</p>	<p>Standardised, structured questionnaire minimises interviewer bias; large amount of information obtained quickly; results are generalisable</p>	<p>Rarely provides comprehensive understanding; can be expensive due to low returns; analysis requires some statistical skills</p>
<p>Diaries/Journals</p> <p>Detailed account of ongoing, regular actions, behaviours</p>	<p>To obtain personalised, detailed information about a particular aspect of a programme</p>	<p>May capture information not thought of; provides contextual information; relatively inexpensive to collect</p>	<p>Can be difficult and/or expensive to analyse; observations are subjective</p>

Selecting a data collection strategy and collecting your data

Before you begin to collect data upon which to base the evaluation of your anti-doping education programme, it is important to choose methods that are suitable for collecting the data you require from the groups you have in mind.

In making your decision it is important to consider the following questions:

- how many individuals would you like to collect data from?
- how much time and what resources do you have available?
- what are the communication skills of those you want to collect data from?
- how wide-ranging and broad are the topics you want to collect data about?
- how complex is the subject of your data collection?

Below are some examples of the methods you might use to collect data specific to your aims:

AIM	SAMPLE OBJECTIVE	SAMPLE TARGET	SAMPLE METHODS OF DATA COLLECTION
Strengthen strategic approach to anti-doping education	To increase the number of NSOs with a trained AD education officer	NADO to organise three training sessions for ten NSOs	Record of attendance at sessions; evaluation form for sessions; questionnaire to NSO about impact of training
Enhance the quality of education provision (I)	To increase the number of coaches capable of delivering anti-doping education	NADO to deliver two training sessions as part of coach education for middle to high level coaches in ten sports	Questionnaire to coaches to assess whether (and how) they have incorporated ADE into their coaching
Enhance the quality of education provision (II)	To increase use of high quality on-line educational resources by IFs	NADO to organise two training sessions in use of on-line educational resources	Qualitative assessment of the quality of existing on-line educational material and of material after training
Enhance athlete understanding of, and commitment to, the WAD Code (I)	To increase commitment to anti-doping values	Train ten NSO educators to run values-based anti-doping role play	Focus group discussion with athletes after participation in role play exercise
Enhance athlete understanding of, and commitment to, the WAD Code (II)	To increase young athletes' understanding of the doping control process	Organise two workshops at selected youth sport events or training camps	End of workshop questionnaire
Enhance athlete understanding of, and commitment to, the WAD Code (III)	To increase athlete understanding of the ADAMS system	Produce and circulate a leaflet which addresses the '5 most common problems' in data entry to ADAMS	Maintain a record of changes in data entry errors

An example of selecting a data collection strategy

- ➔ **Aim** - To widen the range of opportunities to **access** anti-doping education
- ➔ **Objective** – to increase the development of **high quality on-line educational resources**
- ➔ **Sample action** – to provide **training in design/commissioning** of on-line resources
- ➔ **Target** – to increase by 50% within 12 months the number of NSOs providing on-line anti-doping education resources

To evaluate whether or not your programme is achieving this target you (the NADO) could design an assessment as follows:

- a) conduct an assessment of the i) availability and ii) the quality of on-line material prior to the planned Action in order to obtain baseline data
- b) repeat the assessment in 12 months time

Evaluation questions could include the following 8 examples:

- 1 Does the NSO have a website
Yes/No
- 2 If 'Yes' does the website have a link to an education section
Yes/No
- 3 How easy was it to locate the link: from the homepage?
Please tick the appropriate answer:

Very easy	Easy	Neither easy nor difficult	Difficult	Very difficult

Note. These terms would need to be clarified. For example:

Very easy. Link was clearly marked on the home page and transfer was achieved on first attempt

Easy. Link was reasonably clearly marked on the home page and transfer was achieved on first or second attempt

Neither. Link was found after a little searching and transfer was achieved on first or second attempt

Difficult. Link was hard to locate on the home page or not on home page and/or transfer attempts failed on a number of occasions

Very difficult. Link was very hard to locate or could not be found and/or transfer attempts failed completely or on a number of occasions

- 4 How effective was the design of the website?
Please tick the most appropriate answer:

Very clear and user friendly	Clear and user friendly	Neither clear nor confusing	Confusing	Very confusing

Note. You would need to provide definitions of 'Very clear and user friendly', 'Clear and user friendly' etc to ensure consistency of interpretation by the respondents.

5 Was the anti-doping education material on the website up to date? Please tick the most accurate answer.

In all respects	
In most respects	
In a few respects	
In almost no respects	

6 Did the site provide clear links to other relevant websites such as WADA, the NADO, CAS ... ? Please tick the most accurate answer.

There were links to more than two relevant sites	
There were links to two relevant sites	
There were links to one relevant site	
There were no links to relevant sites	

7 Did the website offer interactive material? Yes/No

8 If you answered 'Yes' to Q7 please provide an assessment of the interactive material using the criteria below. 1 = Excellent and 5 = Poor (please tick)

Criteria	1	2	3	4	5
Accuracy					
Ease of use					
Attractiveness					
Etc					

Step 2.2: Recording and storing your data

In any evaluation project you may have data coming from a number of different sources at different times:

- *on-line or postal questionnaire survey returns*
- *coded interview data*
- *data from observations*
- *data from document and website analysis*

In all but the simplest of evaluations you will have to establish a procedure for keeping track of the information i.e. logging its arrival and then storing it in a secure manner until you are ready to undertake the analysis.

There are a variety of ways of keeping track of the incoming data which involve establishing a database which enables you to know quickly what data is currently being held (e.g. proportion of questionnaires returned and number of interviews completed and number transcribed) so that you can 'chase' questionnaire respondents and interviewers and also so that you can decide that you have sufficient data to begin the analysis.

There are many computer-based database programmes which would be suitable for this purpose and which would enable you to run simple descriptive statistics.

In all research there are protocols regarding the retention of original data. The purpose is to enable the data to be reanalysed if necessary to double check on the interpretation and conclusions drawn. The evaluator should always be able to trace a result from a data analysis back to the original questionnaires and interviews on which the analysis was based.

In many research contexts data will be kept for five years or even longer if the data is particularly valuable.

The third step: making sense of your data

Step 3.1:

Processing your data: is it valid and reliable?

Once you have completed the collection of data you can begin the analysis. The analysis of your data should help you to assess how far you have progressed towards your aims, objectives and targets.

It is important that you keep your initial aims in mind when **collecting and analysing** your data.

The purpose of this section is to help you:

- ➔ *relate the data you have collected to your programme aims, objectives and targets*
- ➔ *assess the validity and reliability of your data*
- ➔ *interpret and make sense of your data*

Relating data to your programme aims, objectives and targets

We have emphasised the importance of relating the data you collect to the aims, objectives and targets of your programme.

There are some general points to keep in mind when considering **what sort** of data and **how much** data you need in order to show that your programme is fulfilling its aims and objectives:

- ➔ **the data you collect should relate directly to the intended outcomes of your programme**

As mentioned earlier in this guide, there is no point collecting lots of data that will be of no use when it comes to demonstrating the impact of your programme either because it is unreliable or because it does not relate directly to your aims.

It can be tempting to collect data about aspects of the programme that are interesting, rather than those aspects that are useful indicators of success or progress. Prioritise what you really need to know in order to avoid getting swamped with non-essential information.

- ➔ **you cannot monitor everything**

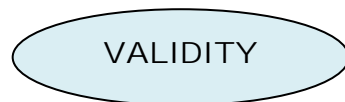
Be realistic about what you can and cannot achieve with your evaluation. Be clear about what are *the most important* objectives and targets for your programme and focus on these.

The validity and reliability of your data

It is essential that any evaluation of your programme which you undertake is trustworthy, useful, efficiently implemented and can stand up to harsh scrutiny.

It is for these reasons that validity and reliability are so important.

But what are validity and reliability? And how can you ensure that your data is both valid and reliable?



Validity is the extent to which the data you have collected measures what it is supposed to measure.

Validity refers to whether data is truthful, credible, sound, defensible and well-grounded.

Ensuring your data is valid – an example:

Assuming that one **aim** of your programme is to improve access to anti-doping education by socio-economically disadvantaged athletes in poorer countries.

The marker of economic development that you have chosen is athletes from countries ranked in the lowest quartile of the Gini index.

Note: The Gini coefficient is an index of inequality of a distribution (in this case – distribution of wealth). It can range from 0 to 1; it is sometimes multiplied by 100 to range between 0 and 100. A low Gini coefficient indicates a more equal distribution of wealth, with 0 corresponding to complete equality, while higher Gini coefficients indicate more unequal distribution of wealth, with 1 corresponding to complete inequality.)

The **success indicator** you have decided upon for this aim is a 15 percentage point increase (from the baseline) in access to on-line education material from athletes who are nationals of countries ranked in the lowest quartile of the Gini index.

To **collect data** your website records the country of origin of every on-line visitor.

The data you have collected tells you that there has been a five percentage point increase in the number of enquiries coming from countries ranked in the lowest quartile of the Gini index.

Your **conclusion** is that the programme has not been successful in achieving your target of a 15 percentage point increase in access.

BUT there are serious weaknesses with your data.

1. *your data does not tell you whether elite athletes in lower quartile Gini index countries are from socio-economically disadvantaged backgrounds*
2. *more importantly your data (country of origin of on-line enquiries) does not tell you whether the enquiry is from an elite athlete*
3. *even more importantly your data does not tell you about the actual location of elite athletes from lower quartile Gini index countries – many of whom are likely to be based either in North America or Europe*
4. *the fundamental weakness is that the Gini index measures inequality of the distribution of wealth not whether a country is rich or poor as it is possible that a country might be rich but distribute its wealth very unequally consequently having a low Gini score*

You have not really measured what you wanted to measure.

To ensure that your data is valid it is essential that you:

- select outcomes that are relevant
- choose your indicators or measures of success carefully
- use several sources of data, so that each source can support the other
e.g. gather data on the success of an anti-doping training event for coaches from the coaches who attended, the athletes who the coaches work with and from the trainers who delivered the training



Reliability is the extent to which repeats of the selected data collection methods would produce similar findings.

Reliability refers to the possibility that someone else can utilise your data collection methods to collect similar data.

It is useful to think of reliability as the consistency or repeatability of your measures.

Ensuring your data is reliable

One **aim** of your programme is to increase the speed of access by athletes to advice on dietary supplements.

As part of your evaluation, you are interested in athletes' opinions about the current provision of information about dietary supplements.

To **collect data** about this, you have asked the NSOs to run athlete focus groups with athletes. You have encouraged your NSOs to devise questions that they think will uncover athletes' opinions in a range of sports.

The focus groups are conducted and a range of opinions are reported back, allowing you to make an assessment of the athletes' opinions about the ease of access to dietary supplement information.

You **have** collected some interesting data about athletes' opinions, but the data collected is not reliable. **WHY NOT?**

1. *The collection of data from the focus groups was not standardised. The questions asked are likely to have been different and the way the NSO focus group leader asked the questions and prompted the athletes might have been different to another group leader.*
2. *There was no control or record of the different sports represented in each focus group or of the profile of participants (such as age, career stage and gender). It is likely that athletes in different sports will have very different information needs and experiences of using information sources.*

In order to make the focus group data reliable it is important to:

- *Brief all of those who are collecting data to try and ensure that everyone collects data in the same way.*
- *Be clear about the exact purpose of the focus groups and ensure that all those collecting data understand this purpose.*
- *Introduce standardised procedures. For example, ensure that there are the same number of athletes in each group; construct a standard schedule of questions for all of the focus groups; consider offering training to NSO staff in the running of focus groups; limit the freedom that group leaders have in prompting athletes*
- *Ensure that a record is kept of the characteristics of those participating in each focus group*

To ensure that your data is reliable it is important that you:

- use clear and systematic procedures to collect your data, such as standardised forms
- trial your monitoring and evaluation tools

Step 3.2:

Analysing and interpreting your data

Analysing and interpreting your data is a crucial step in the evaluation process. And it is important that you get useful findings that accurately reflect the opinions, views and experiences of those involved.

It is also important that you get findings that allow you to demonstrate the impact of your programme to others.

This section will outline how you get from the data you have collected to a position where you are able to make a clear statement about your programme that relates to your aims and objectives.

An example of analysing and interpreting your data

Aim	Related objectives	Relevant targets
To provide new and to expand existing media for delivering anti-doping education	1 To collect information about current anti-doping education media used by NSOs 2 To collect information about trends in the use of new media to deliver anti-doping education 3 To distinguish between the provision of information and the provision of education to athletes	1 To double the use of new media with RTP athletes within 12 months 2 To increase by 50% the number of one to one education sessions involving RTP athletes within 12 months 3 To double the number of non-RTP (development squad) athletes participating in anti-doping education seminars.

Q1 This question asks you (NSO anti-doping education officers) for information about the education activities which exist within your sport. Please indicate:

- (a) the education activities that have **continued at the same level** over the last 12 months
- (b) the education activities that have been **expanded** (e.g. increase in the number of sessions or in the number of participants per session) over the last 12 months
- (c) the **new** education activities that have been introduced in the last 12 months

(Please tick all that apply).

	Activity	No activity	Continuing activity	Expanded activity	New activity
1	Distribution of written educational material direct to RTP athletes				
2	Distribution of written educational material direct to non-RTP (development squad) athletes				
3	Distribution of educational material through new media e.g. interactive internet media and social networking sites to RTP athletes				
4	Distribution of educational material through new media e.g. interactive internet media and social networking sites to non-RTP (development squad) athletes				
5	Delivery of anti-doping seminars/workshops to RTP athletes				
6	Delivery of anti-doping seminars/workshops to non-RTP (development squad) athletes				
7	Design of DVD material for RTP athletes				
8	Design of DVD material for non-RTP (development squad) athletes				
9	Organising one to one education meetings with RTP athletes				

Table 1: Summary of responses to questions regarding activity levels over previous 12 months (all figures are %; previous year's figures in brackets)

	Activity	No activity	Continuing activity	Expanded activity	New activity
1	Distribution of written educational material direct to RTP athletes	0 (5)	60 (60)	35 (30)	5 (5)
2	Distribution of written educational material direct to non-RTP (development squad) athletes	60 (80)	10 (5)	10 (5)	20 (10)
3	Distribution of educational material through new media e.g. interactive internet media and social networking sites to RTP athletes	50 (70)	15 (5)	15 (5)	20 (20)
4	Distribution of educational material through new media e.g. interactive internet media and social networking sites to non-RTP (development squad) athletes	75 (80)	10 (0)	10 (0)	5 (20)
5	Delivery of anti-doping seminars/workshops to RTP athletes	10 (15)	60 (60)	10 (15)	5 (10)
6	Delivery of anti-doping seminars/workshops to non-RTP (development squad) athletes	90 (90)	10 (10)	0 (0)	0 (0)
7	Design of DVD material for RTP athletes	40 (65)	15 (15)	20 (10)	25 (10)
8	Design of DVD material for non-RTP (development squad) athletes	70 (70)	5 (5)	10 (10)	15 (0)
9	Organising one to one education meetings with RTP athletes	40 (65)	25 (15)	10 (10)	25 (10)

What the data in the Table demonstrates...

- ➔ That two activities targeted at RTP athletes (1- written material - and 5 – seminars) are the most commonly utilised.
- ➔ That educational resources and programmes are targeted overwhelmingly at RTP athletes.
- ➔ That there is considerable interest in the development of educational material using new media
- ➔ One to one sessions with RTP athletes are increasingly being used for anti-doping education purposes

What the data collected does not show...

- ➔ The extent to which the 'Expanded activities' have expanded
- ➔ The quality of any of the activities
- ➔ The extent of educational activity with athletes outside the RTP and whether there is a common definition of 'development squad' athletes

How does the data collected relate to the intended targets?

Target 1 To double the use of new media with RTP athletes within 12 months

The data collected does show that there has been a 100% increase over the previous 12 months in the proportion of NADOs (from 20% to 40% of the total) using new media for anti-doping education. **TARGET MET ✓**

Target 2 To increase by 50% the number of one to one education sessions involving RTP athletes within 12 months

The data collected does show that the number of NADOs holding one to one sessions with RTP athletes has increased from 35% to 60% over the 12 months. **TARGET MET ✓**

Target 3 To double the number of non-RTP (development squad) athletes participating in anti-doping education seminars

The data collected shows that there has been no change in the proportion of non-RTP (development squad) athletes participating in seminars/workshops. **TARGET NOT MET ✗**

What kind of general statements can you make using the data from this question?

- ➔ The provision of anti-doping activities for RTP athletes has increased in terms of quantity and range.
- ➔ Provision for non-RTP (development squad) athletes remains much more limited than that for RTP athletes

An example of analysing and interpreting your data

AIM To increase by 20% the participation by RTP level athletes and non-RTP development squad athletes (in seven selected sports over the next 12 months) in anti-doping seminars organised by the NADO

Q Please indicate the number of athletes in the following categories who participated in an anti-doping seminar organised by the NADO in the period between 1st January 2011 and 31st December 2011

Country X									
	Number of athletes in each category	Athletics	Swimming	Skiing	Ice hockey	Tennis	Rugby Union	Cycling	Other
RTP international level	100 (100)	4 from 10 (2 /10)	5/7 (4/7)	3/3 (3/3)	n/a (n/a)	2/8 (1/8)	n/a (n/a)	4/7 (5/7)	47 (36)
RTP national level	150 (150)	10/15 (6/15)	7/8 (6/8)	1 /4 (1/4)	7/15 (6/15)	6/10 (3/10)	16/22 (10/22)	5/10 (6/10)	66 (54)
RTP international level males	70 (70)	2/10 (1/10)	4/7 (2/7)	1/3 (1/3)	n/a (n/a)	1/8 (1/8)	n/a (n/a)	3/7 (3/7)	n/a (n/a)
RTP international level females	30 (30)	2/10 (1/10)	1/7 (2/7)	2/3 (2/3)	n/a (n/a)	1/8 (0/8)	n/a (n/a)	1/7 (2/7)	n/a (n/a)
Non-RTP (development squad)	200 (200)	10/25 (11/25)	16/20 (17/20)	2/7 (3/7)	4/11 (2/11)	3/7 (4/7)	15/25 (16/25)	6/10 (8/10)	95 (106)

Note. Figures in brackets refer to the previous year

The data collected by this question shows...

- ➔ The total number of international RTP athletes participating in NADO seminars has increased from 15 to 18 (an increase of 20%) within the year.
- ➔ The total number of non-RTP athletes participating in NADO seminars has increased from 38 to 52 (an increase of 37%) within the year.
- ➔ The total number of male RTP athletes participating in NADO seminars has increased from 8 to 11 (an increase of 38%) within the year.
- ➔ The total number of female RTP athletes participating in NADO seminars has stayed the same over the 12 months.
- ➔ The total number of non-RTP athletes participating in NADO seminars has decreased from 61 to 58 (a decrease of 5%) within the year.

The data does not tell us ...

- ➔ Whether those attending this year were the same athletes who attended in the previous year.
- ➔ About the quality of the learning that took place during the seminar/workshops i.e. their effectiveness.

What kind of general statements can you make using the data from this question?

- ➔ There is broad consistency in participation within each category of athlete between the two dates
- ➔ Female RTP athletes are more likely to attend than male RTP athletes
- ➔ The proportion of non-RTP (development squad) athletes participating is broadly the same as for RTP international level athletes and slightly higher than that of RTP national level athletes

It is important to remember that:

- data analysis is basically common sense!
- above all else, you should feel confident that your data accurately reflects the actions, views or opinions of those involved.
- others should be able to repeat your analysis and arrive at the same similar conclusions.
- you should attempt to explain any surprise findings. However, if this is not possible, it may be an idea to explore these issues further in future evaluations.

The final step: turning your data into management information

When you have collected and analysed data about your anti-doping education programme, it is important that this information is put to use. The monitoring and evaluation of your programme should be useful in assessing your progress but also in shaping and guiding future actions.

The purpose of this section is to help you:

- ➔ *see the applications of monitoring and evaluation.*
- ➔ *report and present your findings and conclusions*
- ➔ *turn your findings into actions and strategy*

The applications of monitoring and evaluation

Monitoring and evaluation should be useful components of any anti-doping education programme, encouraging you to take a step back and look at the progress your programme is making.

Monitoring and evaluation can be useful in a number of ways:

“Warning that something is going wrong”

Collecting data about your programme can point to things that are not working. What may appear to be an excellent idea on paper may in practice have little impact. Looking at your programme in detail can help you to identify these areas of weakness.

“Helping to improve your programme”

When you have collected data about the impact of your programme, you should have a good idea where there is room for improvement. This may relate to the fine-tuning of existing elements of your programme or the introduction of new initiatives.

“Encouraging a new way of looking at problems”

Taking a step back from your programme can enable you to see new solutions to problems your programme might be experiencing.

“Mobilising support”

Evidence about the impact of your programme, and the progress you are making towards your targets, can be used to demonstrate to a variety of interested groups that the anti-doping education programme is fulfilling its role. Presenting your programme in this light can be useful for maintaining continued support from stakeholders and attracting new interest and resources.

Step 4.1 – 4.2:

Reporting and sharing your conclusions

Undertaking the evaluation of your anti-doping education programme has additional benefit if the findings and recommendations are presented widely.

Maximising the impact of your evaluation

Reporting your findings and conclusions effectively can help you to maximise the impact of your evaluation.

The impact of your evaluation will be affected by:

- ➔ the approach of the evaluator
- ➔ the amount of involvement by key stakeholders in your evaluation process
- ➔ the timeliness of your evaluation
- ➔ the perceived quality of the evaluation and your findings
- ➔ the clarity of your findings and any recommendations you make
- ➔ the extent to which your findings challenge existing practice
- ➔ the quality of your evaluation report

In order to ensure that the best possible use is made of your evaluation, it is important to:

Identify key decision makers

Everyone involved within your programme should be interested in the findings of your evaluation, but there will be specific groups who will be of particular importance in shaping the future direction and structure of your anti-doping education programme.

Address key concerns

Ensuring that your evaluation has addressed the key concerns of the major stakeholders in your anti-doping education programme will increase the impact of any findings you report. Structuring your findings around the stated aims and objectives of your programme will demonstrate your commitment to the broader policy concerns of anti-doping organisations.

Report back promptly

The potential impact of your evaluation will be lessened if there is a delay in the reporting of your findings and conclusions. Reporting back to stakeholders as soon as possible, in a form suitable for your audience will help to ensure that your evaluation is put to the best possible use.

Reporting your findings

The way in which you report your findings can affect the way people view your evaluation and it is important to ensure that you report back in a way that fits your various audiences.

There are a number of ways in which you may want to present your findings:

Written reports

These may take a variety of forms depending on the audience. It is important to write reports in a style, format and length appropriate to your intended audience.

Your audiences may be made up of:

- ➔ politicians, public officials/civil servants
- ➔ doping control staff
- ➔ athletes
- ➔ LEA
- ➔ NADOs
- ➔ national and international federations
- ➔ doctors, scientists, lawyers, coaches and other support staff
- ➔ media

Oral reports

Again it is important to present your findings in a way that is appropriate for the variety of interested audiences. There will probably be particular audiences for whom an oral report may be more suitable. Oral reports may take place at formal meetings of the NADO, annual briefings with NSOs, or during informal anti-doping organisation meetings.

Informal conversations

It is likely that the findings of your evaluation will feed into the day-to-day management of your anti-doping education programme, and therefore may be reported usefully on an informal basis.

Other ways of reporting

There are more ways in which you may effectively present your findings to interested parties including:

- ➔ Power Point presentations
- ➔ Websites
- ➔ Podcasts

Step 4.3:

Acting upon your findings

Turning your findings into actions and strategy

Collecting and analysing your data and reporting your findings are important tasks. But it is equally important that the findings of your evaluation have an impact upon the day-to-day design and delivery of your anti-doping education programme.

Turning your findings into recommendations and implementing proposed actions is therefore an important part of the evaluation process.

There are a number of important points to remember:

- it is useful to have a list of recommended actions that address the findings of your evaluation.
- it is important to communicate these actions to all who are involved in the project. Communicating any proposed actions may form part of your formal and informal written or oral reports.
- it is important to prioritise those actions which are most critical and feasible to implement.
- setting up an action plan to implement the recommended changes is a useful way to organise and plan the ongoing refinement and improvement of your anti-doping education programme.