



GUIDELINES FOR THE EVALUATION OF DRUG PREVENTION INTERVENTION

**A MANUAL FOR PROGRAMME PLANNERS AND
EVALUATORS**

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Preface

In the last few years, a growing number of prevention activities have been carried out in all the member states of the European Union (EU). Most of the projects, however, haven't been effectively evaluated, and so there is an urgent need for improving the knowledge about the process of 'prevention evaluation' and exchanging experiences and results.

The European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) is now promoting scientific evaluation methods in the field of drug prevention - so that the quality of prevention interventions can be improved. To this end, Munich's Institut für Therapieforschung (IFT) has been contracted to develop some Guidelines. These Guidelines (which you are now reading) are designed as a tool to help carry out evaluations of prevention interventions in many different settings and for a broad range of different intervention strategies. They will allow for an improved comparability of results and should therefore help the exchange and discussion of 'good practice' between EU member states in the field of drug prevention. The use of scientific evaluation methods will also help each and every project planner interpret the results of any prevention intervention and to develop future lines of enquiry.

Alongside the Guidelines, five other projects on the European level, focusing on drug prevention have been carried out. These six projects concentrate on different aspects of drug prevention and, as a whole, they complement one another.

The first project of the COST A6 Working Group 2 is coordinated by Alfred Uhl of Ludwig Boltzmann Institute in Vienna. Its aims are summed up by its title, *Evaluation of Primary Prevention in the Field of Illicit Drugs. Definitions - Concepts - Problems*, and its primary goal has been to reach a consensus among European experts over theoretical matters of definitions and methodology.

The second project is the publication of *The Drug Prevention Handbook*, developed by the Jellinek Consultancy in Amsterdam for the Pompidou Group. This is a guide for practitioners to develop and implement drug prevention interventions. The handbook is designed as a comprehensive source of detailed information, with checklists on the issues to be considered when planning, implementing and evaluating prevention activities.

Three other projects have been initiated by the EMCDDA and have been planned and designed to complete the task of promoting scientific evaluation methods and to improve the quality of prevention interventions.

An *Instrument Bank for Evaluation of Prevention Programmes*, which provides concrete examples as well as 'off the shelf' instruments relevant for process and outcome evaluation, has been set up by Mark Morgan of St. Patrick's College in Dublin.

A databank on European prevention interventions is being set up and tested in a feasibility study, involving all REITOX Focal Points, and coordinated by CEPS, Madrid.

And finally, a companion volume to these Guidelines, *The Monograph on the Evaluation of Drug Prevention*, has been published. This is based on papers and workshop discussions from the *First Conference on the Evaluation of Drug Prevention* which took place in March 1997 at the EMCDDA headquarters in Lisbon.

These Guidelines have been developed in three phases. Firstly, an analysis was performed of current European prevention interventions. The current state of knowledge and examples of good evaluative practice were assessed, and 22 separate prevention interventions were examined. In the second phase, the Guidelines were developed according to the results of this assessment and a literature review. A first draft was discussed in an expert workshop at IFT in August 1996, and a revised draft was presented at the March 1997 conference. This draft was discussed in three parallel workshops and also assessed by questionnaire.

Additionally, this second draft was tested in a feasibility study by 20 European prevention interventions in 13 EU Member States. Each of these projects was required to write an evaluation report using the Guidelines, as well as rating their quality and practicability. Finally, the feasibility study participants qualitatively assessed the Guidelines during a two day workshop in June 1997. We therefore believe this version to be well prepared guidelines for evaluating drug prevention interventions.

We would like to thank the many experts who gave their time and comments to the successful development of the Guidelines: the participants of the expert meeting in Munich 1996 : Wim Buismann (Jellinek Centre, Amsterdam), Mark Morgan (Education Research Centre, Dublin), Alice Mostriou (Athens University Medical School, Athens), Jorge Negreiros (Universidade do Porto, Porto), Teresa Salvador (Centro de Estudios sobre Promocion de la Salud, Madrid), Anne-Marie Sindballe (Sundhedsstyrelsen, Copenhagen), Zili Sloboda (National Institute for Drug Abuse, Rockville) and Alfred Springer (Ludwig Boltzmann Institut, Vienna). We would also like to acknowledge the contribution of Alfred Uhl (Ludwig Boltzmann Institute, Vienna), as well as Jürgen Töppich and Gerhard Christiansen of the Federal Centre for Health Education, Cologne, whose close involvement in the discussion of special topics was invaluable.

Finally, we would especially like to thank all who participated in the feasibility phase, devoting a lot of time, patience and energy to 'roadtest' the second draft of the Guidelines. On behalf of everyone involved in the respective projects, thanks to Christian Fazekas (Austria), Peer van der Kreeft (Belgium), Matthy Balthau (Belgium), Tuukka Tammi (Finland), Françoise Baranne (France), Cecile Gendre (France), Josef Mast (Germany), Vasso Boukouvala (Greece), Mark Morgan (Ireland), Cristina Sorio (Italy), Han Kuipers (Netherlands), Sonia Po and Rui Castro Rodrigues (Portugal), Dulcinea Gil (Portugal), Francisco Javier Corpas (Spain), Ulla Isaksson (Sweden), Harriet Gilberg (Sweden), and Willm Mistral (United Kingdom). Their experiences and feedback were essential to make these Guidelines a tool to work with in the real world of drug prevention intervention.

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INTRODUCTION

What is evaluation?

Evaluating an intervention, project or programme¹ means that you systematically collect, analyse and interpret information on how the intervention operates and on what effects it might have. The information collected is often used to decide how to improve an intervention, whether to expand it or to scrap it.

Essentially, evaluation has to answer the following basic questions:

What is the nature and scope of the problem?

Which interventions can affect the problem?

Which target group is to be reached by the intervention?

Does the intervention actually reach the target group?

Is the intervention being implemented as planned?

Is the intervention effective?

Answers to these questions are necessary in order to distinguish useful prevention interventions from ineffective, inefficient ones. This is not only important in terms of improving our level of knowledge about prevention and contributing to its quality, but it can also be the basis upon which policy makers and funders decide which projects to support and which not to support.

But despite the widely accepted necessity and usefulness of evaluation in theory, very few prevention interventions have been evaluated in Europe in practice. One of the reasons for this lack of evaluation on the ground may be that there is insufficient knowledge, uncertainty and lack of confidence about how to actually go about evaluating prevention interventions in the field of substance misuse.

This is the gap that these Guidelines set out to fill. They are meant to serve as a hands-on manual for carrying out valid, scientific evaluations of different kinds of prevention interventions in different settings.

Theoretical background for the Guidelines

In designing these Guidelines, we decided to follow a structured, empirical, quantitative approach. While some people may wish for more in-depth information on qualitative methodology, we felt that in the space available, it would not be possible to combine these two different approaches in a satisfactory way. For those of you wanting more on the theory and methodology of evaluation procedures, we suggest that you get hold of

¹ Throughout these Guidelines, the term 'prevention intervention' is preferred over 'project' or 'programme', as these other terms can have different meanings for different people. (As the term is used on every page, this is the only time that it will be signposted with Y.)

the EMCDDA companion volume, *The Monograph on the Evaluation of Drug Prevention*. This monograph provides in-depth information on many different aspects of evaluation (for instance, the state of play in Europe and America, different types of evaluation, measuring outcomes, intermediate variables, cost-effectiveness, and the barriers to and challenges of evaluation).

Who can use the Guidelines?

These Guidelines are intended to help people from various walks of life plan and evaluate drug prevention interventions. They are designed especially for those who come from a more practical background with little experience of evaluation, but they can also be helpful for more practised evaluators.

In order to address the needs of both these target groups, we have divided this manual into three parts, based on the assumption that the more experience you have of evaluation the less you may need to read and vice versa.

Possibilities for applying the Guidelines

First and foremost, the Guidelines are supposed to help people working in the drug prevention field evaluate their prevention intervention. But there are also other ways in which the Guidelines can be used. For instance, they can be used as a teaching aid in evaluation training - our own experience of a training seminar for practitioners showed that the Guidelines were an extremely useful didactic tool. Another area where the Guidelines can be applied is in the drawing up and evaluation of funding proposals, reports and even other guidelines.

When can the Guidelines be used?

The Guidelines focus on the evaluation of prevention interventions. They do not provide information on how to design a specific prevention intervention. Rather, they can be applied as soon as the concept of a prevention intervention is under discussion. During this stage, they help reflect the planning of the intervention, and later on, they can be used to evaluate its implementation and results. They are suitable not only for untested interventions but also for those that have already been conducted and which are routinely applied.

Structure of the Manual

There are three sections to this Manual: the Guidelines themselves, examples and a glossary. The first part is a short, concise section containing the bare bones of the Guidelines. The second contains more detailed background information and examples for each issue highlighted by the Guidelines. Finally, important terms are elaborated in full in a glossary.

Part A: the Guidelines

This section is the framework of the manual, covering all the steps and issues that should be considered during an evaluation. Four main areas are covered by the Guidelines: the planning phase, the quality and process evaluation, the outcome evaluation, and finally the communication of the evaluation's results. Each of these parts starts with a short introduction, and any technical term marked with an arrow ("Y") is more fully explained in the glossary.

Part B: Examples

This section contains background information on issues covered by the Guidelines as well as practical examples suggested by the feasibility study. This will be especially helpful for those less-experienced in project planning and evaluation.

Part C: Glossary

The glossary contains more detailed descriptions, definitions and explanations of technical and methodological terms which are used in the Guidelines. As with Part B, this will help those who are less familiar with methodological issues to understand and use the Guidelines.

How to use the Manual

In designing these Guidelines, we tried to incorporate the most important aspects which need to be considered when planning and evaluating prevention activities. Of course, there are many more issues which might have been included, but for practical purposes, we decided to limit the Guidelines to the bare essentials.

We are also aware that many people working in the prevention field will not always have the necessary financial and personnel resources to fully evaluate a prevention intervention. We would nevertheless strongly encourage the reader to systematically follow the basic steps laid out in these Guidelines so as to ensure the quality of a prevention intervention.

We recommend that you read all questions in Part A, even though in many cases not all of them will need to be answered. In general, project evaluators should try to answer all the questions about the planning phase (chapter one), and - depending on their particular evaluation plan - proceed to the process evaluation (chapter two) and the outcome evaluation (chapter three). Outcome evaluation is very important, although it is not always feasible for smaller prevention interventions. Likewise, if you do plan to carry out an outcome evaluation, you will need to have at least basic statistical knowledge which cannot be conveyed in a manual such as this. And finally, the chapter on the use of the results (chapter four) is again relevant for all kinds of evaluation.

Evaluation is not a simple task - it can be very costly and time-consuming. These Guidelines are here to help you through this complex procedure. After you have used them a few times, gaining confidence in your own ability as an evaluator, you will begin to find the whole process of evaluation to be a worthwhile enterprise. Ultimately,

evaluation allows you to plan your services more effectively, and you will find in turn, that these Guidelines allow you to plan your evaluation more effectively.

PART A: GUIDELINES FOR THE PLANNING AND REALISATION OF EVALUATION

The symbol "Y" indicates terms which are described in the glossary.

Chapter One: Evaluation of Programme Planning

Evaluation of programme planning refers to the phase when the Y prevention intervention is planned and designed. This is when goals and methods are chosen, and the evaluation of this phase reflects the process of defining the problem and the Y-ultimate target group (which is not necessarily the intervention's actual Ytarget group). It includes needs assessment for a prevention intervention and evaluates the available resources.

The evaluation can be carried out either by an external Yevaluator² or by the person in charge of the intervention. Information should be gathered from the planners and the team that will carry out the intervention. This can be obtained through personal interviews, questionnaires, checklists or written reports. Other useful sources of data are national or local surveys and scientific or popular publications which deal with the issues to be addressed during the programme planning phase. The results should be written up.

1.1 The phenomenon³

The starting point in the planning phase should be a description of the nature, extent and location of the phenomenon to be addressed by the prevention intervention. This phenomenon should always be defined as a Ysubstance use behaviour which the planned intervention aims to prevent. The characteristics of people affected by the phenomenon should also be set out.

The following questions need to be answered. For each one, you should describe your sources of information and comment on the quality of this information.

² As this term is used regularly, it too will only be signposted with Y once.

³ The term 'phenomenon' is preferred in these Guidelines, because the term 'drug problem', which could also be used, has a more negative connotation.

- a. *What phenomenon do you want to prevent with the planned intervention?*
- b. *What are the socio-demographic characteristics of people affected by the phenomenon compared to those who aren't?*
- c. *Where does the phenomenon occur, and where doesn't it?*
- d. *How long has the phenomenon been known about? Has its size, impact and relevance changed over time?*

1.2 The conceptual background

Once the phenomenon has been mapped out, you then need to outline the theory which lies behind your impressions regarding the cause, modification and control of the phenomenon. It should become clear from this why you have chosen the objectives (see 1.5) and the methods (see 1.6) for the particular prevention intervention.

The following questions need to be answered, and you should also provide examples of strategies and activities which could change (or which have changed) the phenomenon.

- a. *Which explanation for the origin of the phenomenon do you prefer?*
- b. *What factors are responsible for the continuation of the phenomenon?*

1.3 The need for a prevention intervention

You also need to verify that the phenomenon exists to a degree which warrants an intervention. This analysis of the need for a particular intervention must calculate the number of people affected by the phenomenon, make the case for this particular intervention as opposed to any other, and describe how (and if) it fits in with other activities.

The following questions need to be answered.

- a. *How many people are affected by the phenomenon? How many new cases are there and how often do they appear? (Y prevalence, Y incidence)*
- b. *How do you expect the phenomenon to develop if nothing is done? On what grounds do you believe this?*
- c. *How would you describe the need for the intervention?*
- d. *Are there different opinions as to the need for an intervention? (Y varying perspectives on need)*
- e. *How did you assess the need for an intervention? (Y needs assessment)*
- f. *Do you know of any related interventions that are being carried out or planned? Do you plan to cooperate with these activities?*

1.4 The target group

Next, you should define the group to whom the specific intervention is addressed (Ytarget group). Two kinds of target group can be differentiated: an Yultimate target group which is most at risk from the drug phenomenon, and an Yintermediate target group, such as parents, teachers and the general population. If the intervention addresses an Yintermediate target group, this group should be described as the target group, and if there is more than one target group, they should be described separately. You should also outline how the target group is to be approached and motivated to participate in the intervention.

The following questions need to be answered.

- a. *Is the target group the Y-ultimate target group or an Yintermediate target group?*
- b. *What are the socio-demographic characteristics of the target group, the scale of the phenomenon and the size of the group?*
- c. *Why did you chose this target group?*
- d. *How many people do you plan to reach?*
- e. *Where and how do you want to contact, recruit and motivate the target group? (Yselection effects, Ycoverage, Ybias)*
- f. *How do you plan to ensure that the target group will stick with the intervention? (Yattrition)*
- g. *Even if your planned intervention exclusively addresses an Yintermediate target group, what are the characteristics of their Y-ultimate target group?*

1.5 Objectives

You need to be clear about the intervention's Yobjectives, defining both the expected effects on substance use behaviour and on Ymediating variables. You should also describe what effects the intervention hopes to achieve for any Yintermediate target group.

The following questions need to be answered.

- a. *How will the intervention affect substance use behaviour in the Y-ultimate target group?*
- b. *How will the intervention affect mediating variables directly related to substance use behaviour in the Y-ultimate target group? (Yknowledge about substance use, Yattitudes towards drugs, Yintention to use drugs, Ynorms)*
- c. *What objectives are considered for other mediating variables? (Ylifeskills, Yrisk factors, Y protective factors, Yproblem behaviour, Ystructural changes, changes in Ylifestyle and Ycultural habits)*
- d. *What is the relationship between these mediating variables and substance use behaviour?*
- e. *What are your objectives concerning the Yintermediate target group?*
- f. *How are the objectives for the Yintermediate target group and the Y-ultimate target group related?*

1.6 Methods

You also need to be sure about the methods and strategies you will employ to satisfy the objectives. The empirical evidence for these strategies should be described, as should the timetable and overall length of time intended for the intervention.

The following questions need to be answered.

- a. *What strategies, components and methods will be used in the intervention?*
- b. *Who will be involved in the prevention intervention?*
- c. *Do you know of any empirical evidence for the success of your methods (e.g., scientific literature, research papers)?*
- d. *How long will the intervention last?*
- e. *What is the planned timetable of the intervention (number of activities, duration and frequency of each activity, etc.)?*
- f. *Do you plan to test the feasibility of the intervention?*

1.7 Resources

Now you are clear about objectives and methods, you should examine the resources available. These resources include staff time, and you should also be aware of any barriers to the availability of resources, which might affect implementation or evaluation.

The following questions need to be answered.

- a. *What staff will carry out the intervention, and what are the qualifications required?*
- b. *How time consuming will the intervention be for each of these people?*
- c. *What is the budget and who is providing it?*
- d. *What additional resources are available (e.g., people, organisations, rooms, materials, etc.)?*
- e. *What could hinder the implementation or evaluation? (Ybarriers)*

1.8 Planning the Process Evaluation

While you're carrying out the evaluation of the planning phase, you should also be aware of the next stages. It should be decided whether there will be a process evaluation and who will carry it out.

Chapter 2 deals with process evaluation, but if you plan to carry out such an evaluation, you should at this point answer the following questions.

- a. *Is a process evaluation planned?*
- b. *What resources do you have to perform a process evaluation?*
- c. *Who will carry out the process evaluation?*

1.9 Planning the Outcome Evaluation

As well as taking the decision whether or not to carry out a process evaluation, you should also do the same for outcome evaluation. Chapter 3 deals with outcome evaluation, but if you plan to conduct such an evaluation, you should at this point answer the following questions.

- a. *Is an outcome evaluation planned?*
- b. *What resources do you have to perform an outcome evaluation?*
- c. *Who will carry out the outcome evaluation?*

1.10 Reflection upon the planning phase

Finally, at the end of the evaluation of the planning phase, the whole process of information gathering and the lines of communication should be looked at.

The following questions need to be answered.

- a. *Who was involved in the planning phase?*
- b. *What is your overall assessment of the process of the planning phase?]*

1.11 Planning checklist

Well done! You have now completed the evaluation of your intervention's planning phase. You should now have a clear idea about:

- *what you want to tackle (1.1)*
- *how you explain that phenomenon (1.2)*
- *why your intervention is necessary (1.3)*
- *who you aim to help with the intervention (1.4)*
- *what your objectives are (1.5)*
- *how the intervention will be carried out (1.6)*
- *what resources the intervention will use (1.7)*

You have also reviewed the whole planning process (1.10) which will help you understand how decisions were made. If one of those decisions was to continue your evaluation (1.8 and 1.9), the next chapters will help you monitor your intervention's process and outcomes.

Chapter Two: Process Evaluation

Process evaluation assesses the implementation of an intervention and the reactions of the participants. It describes how and if the prevention intervention took place, whether its Ydesign worked and whether the designated target group was reached. It is also concerned with the 'quality' of the intervention. As process evaluation collects all the relevant information on an intervention's success or otherwise, it provides useful information for the future improvement of the intervention.

2.1 Planning the Process Evaluation

In planning the process evaluation, decisions have to be made about the selection of the variables and indicators to be measured. In answering the following questions, you should therefore report on what has been measured, how you did it and when you did it.

- a. *What variables and Yindicators will provide useful information on how the intervention was accomplished? What kind of information (Yqualitative or Yquantitative) do you want to assess with process evaluation?*
- b. *What methods and instruments will be used? (Yinterviews, Yquestionnaires, Yobservation instruments)*
- c. *Where, when and how often will the process data be collected? (Ydesign)*
- d. *Who will provide the information needed for process evaluation?*
- e. *How do you plan to analyse the data?*

2.2 Implementation of the prevention intervention

This is perhaps the most important moment in the life of the intervention. The description of the implementation and development of the intervention should cover all the activities which were actually undertaken. This allows you to assess the intervention whether or not it was implemented as originally planned. (Yadherence, Yfidelity, Yreinvention, Yunexpected changes, Yintentional changes)

The following questions need to be answered.

- a. *What strategies, components and methods were actually implemented? Compare your answers with the original plan in sub-section 1.6.*
- b. *What data sources and instruments were used to measure the intervention's implementation? Compare your answers with the original plan in sub-section 2.1.*
- c. *What resources were actually used? Compare your answers with the original plan in sub-section 1.7.*

2.3 The target group revisited

You will also need to look at whether you reached the desired target group.

The following questions need to be answered, and you should also give information on the number of participants, their age, gender, education and other relevant variables. As with the previous sub-section, you should compare your answers with your original plans, in this case the target group as envisaged in sub-section 1.4.

- a. *How many people were actually reached by the intervention?*
- b. *What were the socio-demographic characteristics of the people reached by the intervention?*
- c. *How did you collect this information?*

2.4 Exposure

Next, you need to examine how much of the prevention intervention actually reached the target group. (Yexposure)

The following questions need to be answered.

- a. *How did you measure exposure? Which data sources, Yinstruments or Yindicators did you actually use?*
- b. *How long did the prevention intervention actually last and how many prevention activities took place? Compare your answers with the original plan in sub-section 1.6.*
- c. *To what extent was the target group actually reached? Compare your answers with the original plan in sub-section 1.4.*

2.5 Quality of the prevention intervention

As well as assessing how the intervention was carried out, you need to assess how well it was carried out. The quality of the intervention can be expressed in terms of the reactions and attitudes of the target group towards it (e.g., acceptance, degree of identification, involvement, personal benefit, etc.).

The following questions need to be answered, and it is instructive to compare your answers with your original views on process evaluation as envisaged in sub-section 2.1.

- a. *Who provided the information on the Yquality of the intervention?*
- b. *What indicators and instruments did you actually use to evaluate the quality of the intervention?*
- c. *What are the results of the quality measurements?*

2.6 Discussion of the results of Process Evaluation

Finally, as when evaluating the planning of an intervention, you should analyse and interpret the results of the process evaluation. These results should be compared with results obtained by other evaluations and relevant studies, and your analysis should also include suggestions for the future.

The following questions need to be answered.

- a. *How do the plans for the intervention compare to its actual implementation and your evaluation? Are there any discrepancies and what are the possible reasons for them?*
- b. *What is the impact on any discrepancies on the intervention?*
- c. *What are the strengths and weaknesses of the way the intervention has been implemented? Compare these with results from other interventions.*
- d. *Do you have any suggestions for the future implementation of a similar prevention intervention?*
- e. *Do you have any suggestions for future process evaluations of this kind of prevention intervention?*

2.7 Process checklist

Well done! You have completed your intervention's process evaluation. By now, you should have a clear idea about:

- *how you planned to measure 'process' (2.1)*
- *what actually happened during the intervention (2.2)*
- *how many people were actually reached (2.3)*
- *how much of the target group was reached (2.4)*
- *how 'good' the intervention was (2.5)*

You should have also reviewed the actual implementation of the intervention alongside your plans for it (2.6) to see how much it changed on the ground. The next chapter will help you evaluate the intervention's outcomes - whether it really did what you wanted.

Chapter Three: Outcome Evaluation

Outcome evaluation looks at the effects of the intervention. It deals with whether the intervention actually achieved its intended goals, and as such, is an essential tool for judging whether a particular intervention is worth continuing, adapting or dropping.

The design of an outcome evaluation has a very strong influence on the quality of the results, and so this chapter begins with a description of outcome evaluation planning and then asks how the results of the outcome evaluation can be presented.

3.1 Planning the outcome evaluation

It is essential that the planning of any outcome evaluation begins before the intervention does, as the decisions made in this phase may influence the intervention's timetable and data collection.

To ensure that an effective outcome evaluation is planned, the following questions need to be answered.

- a. *What are your Yindicators for outcome and how do you plan to measure them?*
- b. *Do you want to collect information on outcome following a Yquantitative approach or a Yqualitative approach? What indicators and Yinstruments do you propose to use for collecting information? The following classification may prove useful:*
 - i. *Indicators and instruments to measure substance use behaviour for the Y-ultimate target group.*
 - ii. *Indicators and instruments to measure mediating variables related to substance use behaviour for the Y-ultimate target group.*
 - iii. *Indicators and instruments to measure other mediating variables for the Y-ultimate target group.*
 - iv. *Indicators and instruments to measure objectives for the Yintermediate target group.*
- c. *What do you know about the quality of the instruments (Yobjectivity, Yreliability, Yvalidity)? Do you plan to test the feasibility of the instruments?*
- d. *From whom, when and how often do you plan to collect information on outcome? (Ydesign)*
- e. *How do you plan to analyse the information you gathered? Which Ystatistical methods are adequate to the quality of data and design?*

3.2 Achieving outcome evaluation

Armed with this plan, you should then describe the actual outcome evaluation. The focus should be on changes or adaptations not only in the sample, but also in the design and the use of instruments. Unexpected and Intentional changes should also be distinguished.

When answering the following questions, the previous sub-section should be considered at all times.

- a. *What was the design of the outcome evaluation?*
- b. *What instruments were applied?*
- c. *How was data collected, who did it, when and under what circumstances?*
- d. *How was data processed and what statistical analyses were performed?*

3.3 The sample

Information on the sample which you used to provide the data for the outcome evaluation should be produced. If the sample corresponds to everyone reached by the intervention, or even to the target group, then all you need to do is to refer to the description in sub-sections 1.4 and 2.3. If not, then you need to outline the sample's characteristics, as well as detail the recruitment process and the Attrition level.

The following questions need to be answered.

- a. *How was the sample recruited?*
- b. *What were the sample's socio-demographic characteristics, size, etc.?*
- c. *How do these characteristics compare with those of the whole target group?*
- d. *Were you able to identify drop-outs? If so, what were their characteristics?*

3.4 The outcomes

At some point in outcome evaluation, you have to look at the outcome of the intervention. These results can be tabulated, you can perform complex statistical analysis on them, or you can simply produce a written statement.

The following questions need to be answered.

- a. *How did the intervention affect the Y-ultimate target group's substance use behaviour?*
- b. *How did the intervention affect mediating variables related to substance use in the Y-ultimate target group?*
- c. *How did the intervention affect other mediating variables in the Y-ultimate target group?*
- d. *How did the intervention affect objectives in the Y intermediate target group?*
- e. *Are different subgroups affected differently by the intervention? (e.g., men/women, age groups, risk groups, etc.)*

3.5 Discussion of the results of Outcome Evaluation

Finally, you need to analyse and interpret the outcome evaluation's results. As with process evaluation, these results should be compared with results obtained from other evaluations and relevant studies, and you should also make suggestions for the future.

The following questions need to be answered.

- a. *Did the intervention achieve the expected outcomes? Discuss any discrepancies between expectations and results addressing possible reasons and their impact on the study.*
- b. *What do you think are your most relevant and significant results? Compare these with results from other studies.*
- c. *How certain are you that the intervention caused the results? Are there any alternative explanations for them?*
- d. *What explanation do you have for negative results?*
- e. *Do you have any suggestions for the future use of similar interventions?*
- f. *Do you have any suggestions for future outcome evaluations of this kind of prevention intervention?*

3.6 Outcome checklist

Well done! You have completed the outcome evaluation and have nearly finished the whole evaluative process. By now, you should have a clear idea about:

- ☛ *how you planned to measure 'outcome' (3.1)*
- ☛ *how the outcome evaluation was actually conducted (3.2)*
- ☛ *who the outcome information was gathered from (3.3)*
- ☛ *whether the intervention had any effect on target group behaviour (3.4)*
- ☛ *whether the intervention actually achieved its purpose (3.5)*

You have now finished evaluating your intervention. All you need to do is publicise that fact and share your experiences.

Chapter Four: Communicating the Results

Congratulations! You should now have completed your evaluation. But the hard work isn't over just yet - you now need to consider what use you are going to make of your conclusions.

4.1 Development of a communication plan

Evaluations can be conducted for many different reasons, but one of them should always be to provide a basis for future decision-making. There are certain steps to consider which will ensure maximum use of your evaluation.

You therefore have to answer the following questions if you don't want all your efforts to be in vain.

- a. *Who should 'be in the know'?*
- b. *When do they need the information?*
- c. *What information will different people be interested in?*
- d. *Which written communication forms will you use?*
- e. *Which oral communication forms will you use?*

PART B: EXAMPLES

The following section gives you background information on *all* the questions asked by the Guidelines as well as short examples on how to answer these questions. Most of the examples are taken from the experiences of the drug prevention interventions that applied the Guidelines during the feasibility phase, and most have been summarised or shortened because of space considerations. Given the diversity of possible interventions, these examples obviously cannot be truly representative, but rather, they are used to highlight the scope of possibilities when undertaking a project evaluation.

Chapter One: Evaluation of Programme Planning

1.1 The phenomenon

a. *What phenomenon do you want to prevent with the planned intervention?*

The phenomenon that should ultimately be addressed by a drug prevention intervention is that of substance use behaviour in the Y-ultimate target group. This can refer to legal as well as illegal drugs, and holds true even if the phenomenon is only addressed indirectly, as in life skills training or mass media campaigns.

"We want to prevent the use of drugs - with a major focus on alcohol as a legal drug and heroin as an illegal drug among young people between 10 and 18."

"We want to prevent alcohol consumption at the workplace in a company with 750 employees."

b. *What are the socio-demographic characteristics of people affected by the phenomenon compared to those who aren't?*

The most important socio-demographic characteristics are gender, age, race, socio-economic status and area of residence. Depending on the planned intervention, other relevant characteristics could be risk factors, Y protective factors, personality traits, etc., and characteristics may be different for different drugs or different localities. It is crucial to know what these characteristics are, as only then can you focus the intervention adequately on the target group. However, as there could be dozens of group characteristics, it is best to focus on those which you believe to be most relevant and which are the best documented.

"According to a regional survey, there are four male drug users to every one female. The average age of all drug users is 27.6, 77 per cent are unmarried, 21 per cent have a high school diploma, and 45 per cent have a stable job."

"Clabbers who regularly use Ecstasy are between 18 and 23 years old. They either tend to be in regular employment or they go to school or university (over 80 per cent of them are students)."

c. *Where does the phenomenon occur, and where doesn't it?*

You must describe exactly where the substance use behaviour takes place which your intervention aims to address. Does it happen, for example, at home alone, with friends, at nightclubs, on the street or in the countryside? It is equally important to know where it *doesn't* happen, so that the intervention can be correctly targeted. The answers to these questions are as essential as knowing who is affected by the phenomenon, as without them, the intervention will be unfocused.

"Alcohol consumption in our community occurs in private as well as public places (bars, disco, streets). Heroin is consumed mainly in private but also in public parks. Both seldom occur in school."

"In general, non-urban areas have lower levels of drug use."

- d. *How long has the phenomenon been known about? Has its size, impact and relevance changed over time?*

It's important to be able to make predictions about the future development of the phenomenon. Furthermore, an increase in the phenomenon's dimensions justifies a more rigorous prevention intervention.

"After increasing rapidly in the last decade, heroin consumption seems to be stabilising. There is also a considerable increase in the use of Ecstasy at clubs and raves. Drug use is no longer an essentially urban phenomenon, and according to recent field research, there is an intensification of poverty and insecurity among drug addicts."

Finally, throughout, you should describe your sources of information and comment on the quality of this information. You can use national surveys, literature reviews, other journal articles, your own surveys, etc., and you should also rate the quality of your sources.

"UK national survey of schoolchildren's drug use (Balding, 1997), and local surveys in the UK (e.g., Pollard, 1995). These findings are broadly supported by research from other similar cultures, especially the USA and Australia."

1.2 The conceptual background

- a. *Which explanation for the origin of the phenomenon do you prefer?*

There might be more than one possible theory or explanation to account for the phenomenon, so you should outline the one which you think is most relevant to the planned intervention. You could also explain why you prefer this theory.

"There are many theories to explain teenage substance misuse. Although all of them have some merit, the most widely accepted are the theories of social learning and interaction. The main assumption is that teenage behaviour is heavily influenced by parents and peer groups, and from this viewpoint, the first experience with drugs is the result both of exposure to consumption-favouring models and of a vulnerability to social pressure."

b. What factors are responsible for the continuation of the phenomenon?

In some cases, the factors which cause a phenomenon are different from those which maintain and exacerbate it. It can sometimes therefore be more important to focus on these maintaining factors, especially as it will often be too late to affect the causal factors.

"The attitudes, habits and norms among adults towards alcohol and drug consumption are influencing factors for young people. They are also affected by the media."

"There is an attitude of 'No Future' among young people in our area, which results partly from high unemployment. This negative self image as a community is also affected by society's permissive social norms towards drug use."

You should also provide examples of strategies and activities which could change (or which have changed) the phenomenon. If you know of any specific successful interventions that have been conducted, describe them in as much detail as possible. Even if you have no knowledge of a similar successful intervention, you can still map out the elements and features which you consider to be necessary to your type of intervention.

"The implementation of primary prevention activities on a regional or national level is expected to influence the development of the phenomenon. Activities which could slow down the increase in drug use include: public information campaigns, school-based prevention programmes, the provision of information to pre-existing and to specially set-up parent groups, and programmes aimed at school leavers."

"If an action programme is to have any value, it must be tailored to local conditions. Broad-based, inter-sectorial and interdisciplinary cooperation is needed. There are also other projects which may be able to help change the phenomenon, such as conferences and cultural events organised by young people themselves."

1.3 The need for a prevention intervention

a. How many people are affected by the phenomenon? How many new cases are there and how often do they appear? (Y prevalence, Y incidence)

In order to estimate the relevance of the phenomenon, it is necessary to estimate its size and the number of people affected by it. This estimate can be a general, national one, or on the more specific community level, depending on the scale of your proposed intervention. See Y needs assessment for more on how to obtain the necessary information.

"A British national survey in 1991 showed that more than 30 per cent of 15-16 year olds admitted having used illicit drugs, especially cannabis and LSD."

"Community estimates of the prevalence of regular alcohol use (at least once a week) among people aged 13-18: 30-50 per cent of a total of 540 people. Estimated incidence: 50-60 people in this age range each year."

b. How do you expect the phenomenon to develop if nothing is done? On what grounds do you believe this?

It is important to have a well-founded expectation for the future development of the phenomenon if the intervention was not to take place. Essentially, you must have answers as to whether the phenomenon would get better or worse and whether consumption patterns or the user group would change if nothing was done. Without such answers, the relevance of the planned intervention remains unproved.

"Young people's substance misuse is considered likely to continue its rise. Alcoholic 'soft' drinks are now widely available and it is generally believed that underage drinkers are the target of this marketing exercise. Research has indicated that the use of a substance from a young age predicts the future use of other drugs (Duncan *et al*, 1995)."

c. How would you describe the need for the intervention?

Apart from the number of people affected by the phenomenon, you still need to justify *your* reasons for the planned prevention intervention.

"The 'great Ecstasy debate' continues unabated. The increase both in use and seizures over the last few years has been dramatic (police report), while politicians and other public figures have expressed the urgent need for preventative activities (newspaper story, 23 January 1997)."

"Teenage girls with low self-esteem and little support from school are a high risk group for drug and alcohol use."

d. Are there different opinions as to the need for an intervention? (Y varying perspectives on need)

Different sources may have differing views on the need for an intervention. You need to be sure that in your own case, the target group, policy makers and professionals all agree on the necessity of a prevention intervention. Otherwise, you could get hijacked by a particular group with a particular agenda - a local politician, for instance, coming up for re-election. Prepare yourself for possible difficulties arising from these differing perspectives!

"Local project workers, other prevention and treatment experts and policy-makers all agree on the need for this prevention intervention."

"During the planning phase, the project planner identified varying perspectives on the need for a prevention intervention. These differences are due to the particular field [alcohol misuse] and the national profile of some of the experts. Cultural habits differ with regard to the use of alcohol in social situations and the amount and frequency of consumption."

e. *How did you assess the need for a prevention intervention? (Y needs assessment)*

As different techniques can yield different results, you have to specify your methods carefully.

"We consulted key people with many years' experience in drug prevention work, education and teacher training. Other than themed discussions no formal needs analysis was carried out."

f. *Do you know of any related prevention interventions that are being carried out or planned? Do you plan to cooperate with these activities?*

In order to avoid unnecessary overlap and duplication, it's useful to find out about existing or planned prevention activities in your area. Of course, this could also be helpful for the exchange of ideas and experiences.

"There have been some attempts to use the Internet for prevention, but our planned intervention will be the first systematic effort in the country."

"There are two other mass media drug campaigns, targeting the general population and teachers respectively. As our prevention campaign addresses young people, there is no overlap."

1.4 The target group

a. *Is the target group the Y-ultimate target group intermediate target group?*

You need to be clear about this, or else your intervention will not be clear.

"We are focusing on an intermediate target group (teachers)."

"The project target groups are pupils (ultimate target group) as well as the teachers and the parents (intermediate target groups)."

b. What are the socio-demographic characteristics of the target group, the scale of the phenomenon within that group and the size of the group?

These characteristics include age, gender and race, as well as socio-economic status and living environment. You should also name any other target group characteristics relevant to your intervention, as well as locating the phenomenon within the group itself and providing an indication of the size of the group. If you have more than one target group, you should perform this separately for each.

"The target group live in a socially and economically deprived area - a community with almost no infrastructure, on the outskirts of a small town, and separated from green and open space by a motorway. 150 families live in this so-called 'social residential quarter' and drug misuse is rife."

c. Why did you choose this target group?

Choice of a target group might be influenced by theoretical considerations (it could be a high-risk group), more practical considerations (it was an easy group to reach or it was highly motivated) or a combination of the two.

"This target group was chosen because the incidence of drug use is high and because the presence of a village hall gave us the opportunity to reach the families via the community channel."

"We chose 4th and 8th graders as the ultimate target group because of their high levels of heroin use. The intermediate target group (the local media) was chosen because it wanted to participate and because of its role as opinion former."

d. How many people do you plan to reach?

The answer to this question is crucial. You need to set goals for the intervention and they need to be realistic. If the potential target group is very large, as for example in a regional or national intervention, rather than saying 'we want to reach as many as possible', it is better to give yourself a rough estimate of the number of people you will probably be able to reach, and then to work towards fulfilling that estimate.

"All 150 families in the community, about 500 people."

"We expect to reach between 500 and 5000 people in the first six months. Due to the nature of the Internet however, predicting the exact number of people visiting our site is difficult."

e. Where and how do you want to contact, recruit and motivate the target group? (Yselection effects, Ycoverage, Ybias)

An intervention which no one notices is a waste of time and money. You need to recognise that a target group does not necessarily have any more motivation to participate in an intervention than a non-target group, and so - above all else - you must

be concerned with how to motivate potential targets to seek out the intervention and participate in it. Possible selection effects, bias and undercoverage (or even overcoverage) should also be taken into account.

"In our workplace programme, all employees will be directly contacted by the director through a letter as well as a notice on the bulletin board. They will be entitled to time-off work for the duration of the programme."

"Children and young people (the ultimate target group) will be approached in school, leisure centres, youth clubs, police stations and voluntary organisations. Parents (the intermediate target group) will be approached through the school, at work, and through information in the media."

f. How do you plan to ensure that the target group will stick with the intervention? (Yattrition)

As with initial motivation, the same applies to continued participation - it's unlikely that you will have signed contracts of obligation with all participants, and so there is nothing to stop people walking out of the intervention. The risk of a high Yattrition rate has to be kept in mind and you should make some attempt to address it or encourage people to stay with the intervention.

"Teachers will be offered an accredited Certificate in Drugs Prevention Education upon satisfactory completion of the course."

"The school programme is mandatory for all girls in 9th grade."

g. Even if your planned intervention exclusively addresses an Yintermediate target group, what are the characteristics of their Y-ultimate target group?

This is an important process to go through if you are not addressing substance use behaviour directly, as it can help you keep the ultimate aim of all prevention in your sights.

"The prevention intervention addresses secondary school teachers as an intermediate target group. Their target group are pupils in 6th grade (age 11-12), most of whom do not yet consume illegal drugs, although they are at risk from doing so."

1.5 Objectives

a. How will the intervention affect substance use behaviour in the Y-ultimate target group?

You need to have an idea of how the intervention will affect substance use behaviour, and even if it doesn't directly target substance use behaviour, it should ultimately affect that behaviour. If this is the case, you should concentrate more on describing objectives which you expect to affect mediating variables or the Yintermediate target group. But

even if you are not going to carry out an outcome evaluation of the intervention, you should still have some objectives.

Examples might include the objective to prevent children from using drugs at all, to postpone the age of onset of drug use, to reduce the amount and/or frequency of substance use etc.

"The intervention's objectives are: to decrease regular/excessive consumption of alcohol; to decrease the number of young people regularly smoking tobacco; and to postpone the first experimentation with drugs."

"The indirect objective of the project (which is aimed at improving family functioning) is the reduction of substance misuse and related risks."

b. How will the intervention affect mediating variables directly related to substance use behaviour in the Y-ultimate target group? (Yknowledge about substance use, Yattitudes towards drugs, Yintention to use drugs, Ynorms)

Apart from the direct influence on substance use behaviour itself, the intervention might also aim at changing mediating variables that are related to substance use behaviour. Primary prevention interventions will often focus more on these mediating variables than on substance use behaviour itself.

"The intervention aims to increase knowledge about substance use (e.g., individual and social consequences of alcoholism)."

c. What objectives are considered for other mediating variables? (Ylifeskills, Yrisk factors, Y protective factors, Yproblem behaviour, Ystructural changes, changes in Ylifestyle and Ycultural habits)

As well as mediating variables which are directly related to substance use (knowledge, attitudes, etc.) any intervention can also have profound effects on more general variables. You should be aware of this at the outset of the planning phase.

"The intervention will improve problem-solving, enhance communication skills, strengthen self-esteem and encourage creativity."

d. What is the relationship between these mediating variables and substance use behaviour?

If you want to affect mediating variables, you have to explain the relationship between these variables and substance use behaviour. The question everyone will be asking is 'why do you think substance use behaviour will change if you give someone a leaflet about drugs or make them more self-confident?'

"Autonomy, good affective relationships and social support from family and friends are considered to be protective factors against substance misuse (e.g., Kaminer et al, 1994)."

e. What are your objectives concerning the Yintermediate target group?

If your intervention covers an Yintermediate target group, this section should effectively recapitulate the last four questions, but for this group, not the Y-ultimate target group.

"For teachers, the intervention's objectives are as follows: increase awareness and understanding of substance use; develop understanding of effective prevention and educational strategies; and develop appropriate skills for working in this field, (e.g., teaching, communication and counselling skills)."

"Improve the relationship between parents and their children."

f. How are the objectives related for the Yintermediate target group and the Y-ultimate target group?

You need to clarify the relationship between the objectives for all your target groups. The bottomline is to understand how changes in the Yintermediate target group will affect the Y-ultimate target group. Without a clear rationale for the choice of these objectives, their implications for drug prevention will remain unclear.

"Parents play an important role as models for the behaviour of adolescents. In order to affect smoking behaviour in this ultimate target group, it is therefore necessary to influence parents' behaviour as well."

1.6 Methods

a. What strategies, components and methods will be used in the intervention?

This is the core of the plan - the detailed description of the proposed prevention activities.

"The educational method used by the Health Education Programme is that of 'Active Learning' which aims to support and enable the development of a student's basic skills. It will be implemented in the three grades of elementary school and will cover three topics (tobacco, alcohol, illegal drugs). Methods include class discussions, group discussions, interview, research/survey, writing, dramatisation, role play, films etc."

"The intervention is designed for school teachers and drug educators to increase their knowledge of the most commonly misused substances, to improve their communication skills and to enhance small group teaching and counselling skills."

It is a four module programme resulting in a 'Certificate in Drugs Prevention and Education'. The modules are based on the relevant literature and research."

b. Who will be involved in the prevention intervention?

This refers not only to the people who will carry out the intervention, but also to people who will communicate the intervention's message to the Y-ultimate target group. If the intervention is aimed specifically at the Y-ultimate target group (schoolchildren, for example) then perhaps - though by no means always - the people who are conducting the intervention will be the only ones involved in it. However, if an intermediate group is targeted, the expectation is that they will in turn become involved in the communication of the intervention's lessons (local radio stations, for instance, running features on substance use, teachers undertaking drug education lessons). You therefore need to cover everyone who you expect to be involved in the intervention.

"Teachers and parents will act as the main agents for change/intermediate target group."

c. Do you know of any empirical evidence for the success of your methods (e.g., scientific literature)?

If similar interventions (or elements of them) have already been tested in another country or another setting, you should point this out and summarise the relevant results.

"There is no direct empirical support for the success of prevention via the Internet, but in some related areas, especially telemedicine, studies on client satisfaction have been conducted. These studies show that in some cases the patients even prefer communicating with a computer to a practitioner."

d. How long will the prevention intervention last?

As well as knowing the who, how and where, it's equally important to know how long an intervention is expected to last.

"The programme director and policy makers have agreed on five years with the option of extending it for another five."

e. What is the planned timetable of the intervention (number of activities, duration and frequency of each activity, etc.)?

You should also describe the duration of each of the intervention's elements in more detail.

"Three community group meetings for two hours each; 12 working group meetings for two hours each; five to eight additional seminars for parents. For

the ultimate target group: 4th graders - eight one hour lessons each year; 8th graders - four one hour lessons each year."

"Weekly classes (one hour each) for one year. That makes a total of about 40 weekly classes."

f. Do you plan to test the feasibility of the intervention?

Before you start a new intervention or a tried and tested old one in a new field, you should try to find out whether the intervention will be accepted by the target group and whether it has a chance of achieving the expected results. In a mass media campaign, you might for example, 'test-drive' the materials you plan to use within a 'focus group', asking them what they think. Or you might ask some teachers for their views on a manual for a school project, or even do a full dry-run of the intervention.

"We plan to use a 'drug information suitcase' which is filled with material related in some way to drugs or drug use behaviour, such as brochures, texts about drug use etc. We plan to test out this suitcase with several people without any prompting and to ask them for their opinions."

"We want to ask 25 people about a poster on risk-taking behaviours which we have designed to be distributed to schools. People will be asked to describe what they see on the poster, what they think the most important message is, and whether they think it is suitable for this purpose."

1.7 Resources

a. What staff will carry out the intervention, and what are the qualifications required?

Only the people to be directly involved in the prevention project should be listed. All additional resources should be described in the following sections.

"Project director - formal characteristics: MD, psychotherapeutic training, minimum of five years experience in carrying out and evaluating prevention programmes. Informal characteristics: credibility, acceptance by the community pressure group. Major project implementor - formal characteristics: psychotherapeutic training, professional experience in working with adolescents. Informal characteristics: credibility, grew up in community where prevention intervention takes place, able to identify with young people."

b. How time consuming will the intervention be for each of these people?

It is important to plan realistically to avoid overloading people. You should always be aware of the pitfalls of underestimating the time needed to carry out the intervention.

"Project leader: two hours per day over a period of two years. Project implementor: 100 per cent, ie, 40 hours per week."

- c. *What is the intervention's budget and who is providing it?*

Give the overall budget as well as the source(s) of funding.

"Between 200,000 and 300,000 ECUs. Funded by National Institute of Health."

- d. *What additional resources are available (e.g., people, organisations, rooms, materials, etc.)?*

These resources should be identified, as they can provide invaluable support.

"An office is available for drug prevention and counselling, fully equipped with personal computer, telephone and fax."

"Audiovisual and projection tools (TV displays), computer."

- e. *What could hinder the implementation or evaluation of the intervention? (Ybarriers)*

It is important to think about potential obstacles so as to find ways to avoid them if and when they occur.

"Potential barriers: language difficulties, time-consuming travel, lack of financial support and the difficulties professionals may have in finding enough time to participate fully."

1.8 Planning the Process Evaluation

- a. *Is a process evaluation planned?*

A simple yes/no answer will suffice. If yes, you will need to provide more in-depth answers at a later date (see chapter two).

- b. *What resources do you have to perform a process evaluation?*

This asks you to critically assess whether you have the necessary financial and personnel resources to adequately perform a process evaluation. The costs in terms of time and money are often underestimated. It is advisable to reserve between 10 and 30 per cent of the financial resources available for a prevention intervention for process and outcome evaluation.

"The evaluation will be performed by the research team of our unit."

c. Who will carry out the process evaluation?

You should have specific plans for this. Give the name of the organisation or people who you hope to ask to carry out the evaluation. Describe their role (internal or external to the intervention) and their formal and informal characteristics (member of staff, qualifications, etc.).

"Psychologist - a member of our staff will assist him. An external evaluator will carry out the process evaluation. Contacts already exist at the Mental Health Research Institute of the local university."

1.9 Planning the Outcome Evaluation

a. Is an outcome evaluation planned?

A simple yes/no answer will suffice here too. If yes, you will need to provide more in-depth answers at a later date (see chapter three).

b. What resources do you have to perform an outcome evaluation?

This asks you to critically assess whether you have the necessary financial and personnel resources to adequately perform an outcome evaluation. The costs in terms of time and money are often underestimated. It is advisable to reserve between 10 and 30 per cent of the financial resources available for a prevention intervention for process and outcome evaluation.

"The outcome evaluation will be performed by the research team of the cooperating local university."

c. Who will carry out the outcome evaluation?

You should have specific plans for this. Give the name of the organisation or people who you hope to ask to carry out the evaluation. Describe their role (internal or external to the intervention) and their formal and informal characteristics (member of staff, qualifications, etc.).

"There will be an external evaluator from the university research team."

1.10 Reflection upon the planning phase

a. Who was involved in the planning phase?

You need to consider whose ideas and wishes were taken into account when planning the intervention. This could include the team implementing the prevention intervention, the target group (intermediate/ultimate), policy makers and researchers.

"The project was set up as an 'action research model'. The first step was to assess the need for a prevention intervention among the target group. To this

end, we interviewed families in the community, asking them where they expected to see interventions (in the school, family, community, etc.), how effective they expected these interventions to be, and what they felt the key areas of an intervention should be. Thus, the target group was directly involved in the planning phase, along with the research team itself, consisting of two psychologists and two social workers."

b. What is your overall assessment of the process of the planning phase?

If any difficulties arose which you would address differently in the future, now is the time to say so.

"Some aspects of the planned intervention were not sufficiently thought through. During planning it became apparent that we had to make more concrete plans on how to transfer the benefit of the intervention from our intermediate target group (teachers and social workers) to the ultimate target group (schoolchildren)."

Chapter Two: Process Evaluation

2.1 Planning the Process Evaluation

- a. *What variables and Yindicators will provide useful information on how the intervention was accomplished? What kind of information (Yqualitative or Yquantitative) do you want to assess with process evaluation?*

There are four ways of conceptualising helpful variables and indicators:

- Will the intervention been implemented as designed? This could be backed up by, for example, teachers' reports on the use of an intervention manual.
- How much of the intervention will the target group receive? This can be answered with information on the number of training sessions and their duration.
- Will the prevention intervention be changed during implementation? Self reports from trainers about any adaptation during the intervention's implementation are helpful here.
- And what is the quality of the intervention? This could be assessed by schoolchildren's satisfaction with the intervention.

The distinction between quantitative and qualitative information refers to whether you can express the information in numbers (quantitative) or in verbal descriptions (qualitative). An example of a quantitative approach is the use of a questionnaire; an example of a qualitative approach is an unstructured interview about an individual's experience of the intervention.

"Variables that will be used to assess the realisation of the prevention intervention: observation and report on whether the intervention has been delivered; the number and duration of the training sessions; teacher and pupil satisfaction. As well as these quantitative measures, group interviews on the implementation process will be conducted with all teachers."

- b. *What methods and instruments will be used? (Yinterviews, Yquestionnaires, Yobservation instruments)*

Questionnaires, interviews, reports, checklists and written records are all possible instruments to measure the process. Another possibility might be the use of observation during the intervention's implementation.

"Questionnaires, semi-structured interviews and informal telephone interviews with the leader of the team will all be undertaken. Semi-structured interviews will

be carried out with the course tutors and participants, as well as observation of a number of training sessions and focus groups with evaluation personnel."

"The students' interest, behaviour and attitudes during the intervention are quality indicators. They will be observed by the trainers and described in a protocol."

c. Where, when and how often will the process data be collected? (Ydesign)

This is as important as the evaluative tools.

"During dance events, and after each intervention."

"Classroom questionnaires will be distributed after each training session, and observations will take place during the third, the sixth, and the ninth sessions. Teacher interviews will also be conducted after the fifth training session."

d. Who will provide the information needed for process evaluation?

You also need to know who will be asked or examined (e.g., intervention participants, trainers, teachers, independent Yobservers, etc.).

"We will obtain information from the school teachers who will implement the programme, the headteachers in the schools where the programme will be implemented and students who will attend the programme."

e. How do you plan to analyse the data?

At this point, you should plan whether to apply any special statistical procedures or merely describe the data. If the former, the necessary preconditions for complex data analysis (statistical knowledge and technical equipment) has to be available.

"The questionnaire data will be analysed by the statistic programme SPSS (Statistical Package for the Social Sciences). The statistical procedure that will be used is MANOVA."

"Student interviews (satisfaction with the intervention, interest in the training, personal benefit, increase of knowledge, etc.) will be analysed and the results will be proportionally described."

"The data will be analysed qualitatively with the aim of giving a 'three dimensional' description of the whole process of planning, set-up, delivery, and sustaining a fully accredited certificate course in drug education. As part of an action research strategy, the research team will regularly feed back findings to the Drug Prevention Team leader so that modifications may be made to improve the course on an ongoing basis."

2.2 Implementation of the Prevention Intervention

- a. *What strategies, components and methods were actually implemented? Compare your answers with the original plan in sub-section 1.6.*

You now need to describe what actually happened in detail.

Components

The educational materials used by the 'Health Education' programme are divided into three parts. The first deals with smoking ('counter attack on smoking', 'the language of persuasion', 'the first offer', 'giving up the habit'). The second deals with alcohol ('the general picture', 'in between', 'one among many', 'ask yourself'). The third deals with drugs ('pictures', 'a pill for every patient', 'why not try'). The appendix has into three sections. ('drugs. General information', 'self awareness', 'how we breathe').

All components have been implemented in the three secondary school grades. For example, parts one and two of the first section dealing with smoking are implemented in the 1st and 2nd grades, part three in the 2nd grade and the remainder, in the 3rd grade. In other words, the appropriate materials have been chosen according to the age of the students.

Methods

The educational method used by the intervention is that of 'active learning', which aims to support and enable the development of the students' basic skills. The activities include: class discussion, group discussion, interview, research/survey, attitude, classification, debate, writing, role play, the media, posters, community involvement, reflection, etc.

Intermediate target groups

The secondary school teachers were trained by the scientific team in a three day seminar on the intervention's principles and methods. This training was approved by the Department of Education and the teachers' participation was voluntary. Alongside the permission required from the Department of Education, the consent of the headteacher and the Association of Teachers has been indispensable. The training was carried out according to the original plan.

Parents were also told about the goals of 'Health Education'. They could join a special 'parent group', and throughout, the programme has tried to promote close cooperation between schools and the local community."

- b. *What data sources and instruments were used to measure the intervention's implementation? Compare your answers with the original plan in sub-section 2.1.*

These sources could include participants, trainers, the evaluator, an independent Observer, or anyone else who was involved in the implementation process. Instruments can include questionnaires, reports, checklists, interviews or discussion groups.

"The people involved in this measurement exercise were: the teachers who took part in the programme; the headteachers of the schools which implemented the programme; and the school students who attended the programme."

"Municipal teams for Community Prevention of Drug Addiction were entrusted with organising the implementation of the programme in their regions, and so they gave invaluable information. Teachers, parents and schoolchildren were also sources of data."

"The 'Notebook for Teachers', as well as allowing for personal comments from every teacher who implemented the programme, also included questions such as: which element of the intervention has been implemented? How helpful have the manual's instructions been? Are there possible improvements on these instructions? Were there any difficulties during implementation?"

c. What resources were actually used? Compare your answers with the original plan in sub-section 1.7.

It is vital to determine whether the resources were used as planned or whether changes occurred. Knowing this will be extremely helpful in any future application of your intervention.

"The resources were used as planned with the following exception. The fact that 20 per cent of the pupils had moved away from the area meant that the administrator needed to spend more time chasing up the new addresses in order to send the follow-up questionnaire. Instead of 20 hours a week, she needed to work 30 hours for a period of three months."

2.3 The target group revisited

a. How many people were actually reached by the intervention?

An obvious question, but a crucial one if you are to make any headway in understanding the overlap between the actual and the planned interventions.

"450 pupils were contacted."

b. What were the socio-demographic characteristics of the people reached by the intervention?

This is just as important as the number of people reached. The answer will help you to match the planned target group with the actual target group. It will also help to detect selection effects.

"Gender: 45 female and 75 male participants. This is a gender ratio of 1 to 1.7. Education: 10 Junior High School students, 35 High School students. 75 College students."

"Primary school: 10 per cent of participants. Secondary school: 90 per cent of participants. The annual income of the families reached: <\$15,000 - 10 per cent; \$15,001-\$35,000 - 60 per cent; >\$35,000 - 30 per cent."

"Other relevant information: the participants belong to an ethnic minority (Moroccan woman, Muslims)."

c. How did you collect this information?

As different methods yield different results, it's important to know how the information was collected. Different methods of data collection can lead to possible distortions in the answers - for example, participants may overestimate their income in group discussions.

"The socio-demographic data were collected using an anonymous questionnaire. This questionnaire was handed out after the first session and collected at the next session."

Throughout, you should compare your answers with your original plans, in this case the target group as envisaged in sub-section 1.4. Deviations concerning the target group during the setting-up of the intervention may lead to differences in its implementation and in the final results.

"The target group was reached as planned."

"We planned to reach young people aged between 15 and 17 visiting raves. The actual participants were older (mean age: 18.3 years)."

"The gender ratio and the ratio of German to other nationalities was supposed to be the same in all three experimental groups. In fact, in the control group there were 10 per cent more Turkish pupils than in the other two groups."

2.4 Exposure

a. How did you measure exposure? Which data sources, Yinstruments or Yindicators did you actually use?

A crucial element for the understanding of whether the intervention reached the proposed target group, is the need to estimate how prominent the intervention actually

was. For instance, if you are carrying out a public information campaign, you will need to know how widely information leaflets have been distributed. You should also be clear about who was asked in order to gather the relevant data. These data sources could be all those who are involved in the intervention or just a select few. Once again, you need to spell out what data-gathering instruments were used.

"The teachers in the schools which were implementing the programme were the main data source. The 'Notebook for Teachers' asked for comments on the implementation of the programme, as well as for information on the number of teaching hours actually carried out in each class."

- b. How long did the prevention intervention actually last and how many prevention activities took place? Compare your answers with the original plan in sub-section 1.6.*

This description of the duration and the number of activities carried out will help you assess the level of exposure.

"In the first two years of implementation, each class had 12 lessons of 45 minutes a piece."

"The number of sessions ranged from three to 10, with a mean of 8.76 sessions. The average length of each session ranged from less than 30 minutes to over 50, with a mean of 40 minutes. Time differences were mostly due to variations in the length of class periods, which ranged from 45 to 55 minutes. The whole programme consisted of ten sessions."

- c. To what extent was the target group actually reached? Compare your answers with the original plan in sub-section 1.4.*

This is a key question, because even if a prevention intervention is fully delivered to the target group, some of that group may not receive the intervention because of absence, illness or truancy.

"In total, 1500 students took part in the programme. 85 per cent took part in all 12 lessons, 93 per cent took part in 10."

2.5 Quality of the prevention intervention

- a. Who provided the information on the quality of the intervention?*

These sources could include participants, trainers, the evaluator, an independent observer, or anyone else who was involved in the implementation process.

"Teachers and students were the information source on the quality of the actions developed."

b. What indicators and instruments did you actually use to evaluate the quality of the intervention?

Indicators can include active participation, attitudes towards the intervention, personal benefit, degree of identification. Instruments could include questionnaires, reports, checklists, interviews or discussion groups.

"Indicators

Teacher indicators used: perceived efficiency, degree of satisfaction, participation experience, versatility of the programme, curricular integration, attractiveness of supporting material.

Pupil indicators used: recognition of the programme, linguistic adaptation, personal experience of the time dedicated to the programme, perceived efficiency."

"Teachers received a questionnaire that included questions about class participation in the programme, class disruption and achievement. A global rating of "how well" the programme was implemented was also assessed (1=very poorly to 4=very well).

In addition, the research staff observer conducted random observations of implementation in each school, as well as periodic phone calls and meetings with teachers and headteachers. Criteria for rating implementation were discussed among research and programme staff prior to actual observation, until a consensus (using hypothetical examples) was reached. Items included: observed class participation, interest, and teachers' completion of session activities, as well as an overall rating of implementation (1=very poorly to 4=very well). The observer's overall rating was compared to the teachers' report of overall intervention implementation."

c. What are the results of the quality measurements?

This is one of the most crucial questions if the results of the particular intervention are to be used to inform any future interventions.

"The assessment of teaching methods, attainment of objectives and involvement of students revealed the following results. For 8.6 per cent, teaching methods were inefficient; for 10.4 per cent, objectives were not achieved; and for 13.4%, student involvement was low. However, overall quality ratings show 52.7% of the ratings to be excellent, 46.7% of ratings to be good, and only 0.6% of ratings to be poor."

2.6 Discussion of the results of Process Evaluation

- a. *How do the plans for the intervention compare to its actual implementation and your evaluation? Are there any discrepancies and what are the possible reasons for them?*

You should summarise any deviations and discrepancies in the intervention's implementation, its target group and its exposure. Doing so will help you discuss and interpret the intervention's' results.

"The intervention was implemented as planned - no discrepancies were found. The target group was also reached as planned. However, due to ill-health among staff, the exposure rate was lower than planned. In two classes, only six of the 10 lessons were conducted."

- b. *What is the impact on any discrepancies on the intervention?*

If there were any discrepancies, you should discuss their implications for the intervention. This will help you to understand their significance for the intervention's implementation.

"Due to the lowered exposure rate, it is difficult to draw conclusions as to the intervention's effects. The negative results may be related to this fact."

- c. *What are the strengths and weaknesses of the way the intervention has been implemented? Compare these with results from other interventions.*

Answering this question will help avoid similar problems and improve implementation in the future. If possible, compare the results of your intervention with similar interventions reported in the literature. This is very important, as it forms the basis for any judgement about the worth of your intervention.

"Results of this study indicated a high quality of programme realisation, as measured by the level of exposure and overall judgement of the quality of implementation. One problem concerning generalisation of the results is the assistance the teachers received from the project staff. Teachers were contacted by telephone and had the opportunity to talk over problems. This assistance probably contributed to the high motivation of the teachers, and it has to be shown whether similar results can be gained when teachers do not receive special treatment. The findings of process evaluation are consistent with the results of other school based life skills programmes (Petermann *et al*, 1997)."

- d. *Do you have any suggestions for the future implementation of a similar prevention intervention?*

As you have now implemented a prevention intervention, you are well placed to make any suggestions for other planners.

"In the future, we envisage an increased involvement from the teachers, a further analysis of attitudes and lifestyle, and a modification of the videotape to include a specific section on new drugs."

e. *Do you have any suggestions for future process evaluations of this kind of prevention intervention?*

You are also in a good position to make recommendations about process evaluation.

"After each session, we asked the pupils to fill out a questionnaire on the session. We used the same questionnaire after each session and noticed that pupils became less and less careful when answering. We would therefore suggest the inclusion of specific questions relating to each session in order to make answering them more interesting for the pupils."

Chapter Three: Outcome Evaluation

3.1 Planning the outcome evaluation

- a. *What are your Yindicators for outcome and how do you plan to measure them?*

Deciding how to measure outcome is not always easy, but it is a crucial decision. Given the constraints of money and time, a good outcome measure is one that is not only feasible to use but also more or less directly related to the goals of the intervention. In order to know whether the intervention has reached its goals, you must obviously have a clearly defined criterion for those goals. In other words, it must be 'operationalised' and clearly defined in measurable terms. This is especially important with mediating variables, which are often not easily observable.

"Main outcome indicator will be the self-report WHO questionnaire, 'Survey on the Student Population'. Questions concern tobacco and alcohol use, medicine and illegal drugs, knowledge about substances, attitudes towards substances, intentions to use substances, and antisocial behaviour."

- b. *Do you want to collect information on outcome following a Yquantitative approach or a Yqualitative approach? What indicators and Yinstruments do you propose to use for collecting information?*

Assessing the outcome of an intervention in a scientifically plausible and efficient way requires data that are quantifiable. If you therefore intend to collect outcome information following a qualitative approach (for example, using an unstructured interview) you should have a plan for analysing the answers in a quantitative way.

"The intervention plans to increase the knowledge and skills of drug educators. Knowledge will be measured by a written test after the intervention with 50 questions on drug-related topics. Education skills will be measured by asking the participants to produce an outline drug education programme for a named client group within a specified educational setting; a lesson plan; and a presentation of the lesson plan. The participants will evaluate each other's content and presentation of the lesson plan."

"We will apply a sub-scale ('locus-of-control') of the 'Life Skills Training Student Questionnaire' (Botvin *et al*, 1984)."

- c. *What do you know about the quality of the instruments (Yobjectivity, Yreliability, Yvalidity)? Do you plan to test the feasibility of the instruments?*

In order to correctly assess the results of any evaluation, it is important to give information on the quality of the instruments used. For instruments that are already well-established, you can usually refer to the handbook or manual. If you have constructed your own instruments however, you may want to consider conducting a study of their reliability/validity. Testing the feasibility of an instrument is obviously advisable in such a case, but this should also be carried out if you are using an instrument constructed for another language, cultural background, area, etc. In such a situation, it might be better to have the instrument rated externally for comprehensibility and logic.

"We plan to use the Children's Self Concept Attitudinal Inventory (SCAT). As a paper and pencil test, it is objective. As evidence for good reliability, the scales in the inventory have an average Cronbach alpha of .80. There is also evidence for validity of the scales based on the 'know-group-method' of comparing high and low performance students in school. We had to translate the questionnaire into our own language, and so we plan to conduct a small feasibility study. We will ask ten pupils to fill out the inventory and to indicate for each question whether they understand what we mean by it."

d. *From whom, when and how often do you plan to collect information on outcome? (Ydesign)*

It is also important to have an understanding of how recent and how widespread the outcome information is.

"Using a quasi-experimental design, data will be collected from an experimental group and a not randomly assigned control group. The data collection will take place twice (one week before and one week after the intervention)."

e. *How do you plan to analyse the information you gathered? Which Ystatistical methods are adequate to the quality of data and design?*

If you plan to analyse the data yourself, you should describe the statistical procedures and technical equipment you aim to use. But it may be advisable to hand data analysis to an experienced researcher. If this is the case, you should also indicate who will process the data.

"Questionnaire data will be analysed by the computer package SPSS PC+. Processing entails frequencies, multiple variable tables, mean values, and comparisons between means per group (chi-square and students t)."

"Data filing and processing will be carried out by the research team working for our institute."

3.2 Achieving outcome evaluation

If you were able to accomplish the outcome evaluation as planned, you can refer to the respective questions in section 3.1. If any changes have occurred, describe the evaluation as it was *actually* conducted.

3.3 The sample

a. *How was the sample recruited?*

How you approached the sample (via a notice board, a newspaper advert, word of mouth, etc.) is as important as how you recruited the whole target group. Whether the sample participated voluntarily or compulsorily is also significant, as is the issue of reimbursement.

"The questionnaire was distributed to classes in the 1st grade of secondary schools before the implementation of 'Health Education', as well as to the classes of two control schools. The completion of the questionnaire was compulsory and it took place over two consecutive teaching hours."

"The experimental group was made up of all those who took part in the intervention. The control group was recruited from students of the same age, sex, socio-demographic characteristics, attending the same school levels in the same geographical area. Both groups chose to participate in the outcome evaluation."

b. *What were the sample's socio-demographic characteristics, size, etc.?*

The characteristics of the sample and - if applicable - the Ycontrol group should be described separately and compared for any significant differences. Any such differences lessen the degree of comparability between the two groups.

Experimental group (n=120): 60 (50 per cent) female, 60 (50 per cent) male. Average age 10.8 years, Standard Deviation 2.4; range 5.5-17.3.

Control group (n=110): 80 (73 per cent) female, 30 (27 per cent) male. Average age 11.0 years, Standard Deviation 2.3, range 6.5-17.6."

"Intermediate target group: five school teachers, two youth and community police officers, four drug educators. The participants ranged in age from 21 to 55 years. Ethnic groups: three black, eight white. Six female, five male."

c. *How do these characteristics compare with those of the whole target group?*

It is, of course, vital to know whether the sample is representative of the whole target group.

"As planned, we gathered results on outcome from a subgroup (20 per cent) of the target group. Since we had administered the first questionnaire on substance use behaviour to all participants in the intervention, we were able to compare socio-demographic characteristics between the sample and the whole target group. There were no significant differences in age, gender or other characteristics."

d. Were you able to identify drop-outs? If so, what were their characteristics?

If those that do not stay in the sample until the end of the data collection differ significantly from the others, for example in age or gender, it is likely that the sample is no longer representative.

"All stayed in the sample. There were therefore no drop-outs."

"We made a statistical comparison on the differences between the drop-outs and the remaining sample (age, gender, socio-economic status, etc.). There were no significant differences between the two groups. The groups are therefore comparable."

3.4 The outcomes

This crucial section should follow the same format as the earlier description of the intervention's objectives (sub-section 1.5). The first three questions refer to outcome variables in the Y-ultimate target group, the rest to outcomes in the Yintermediate target group.

a. How did the intervention affect the Y-ultimate target group's substance use behaviour?

"The life skills training had a significant primary prevention effect. Thirty day prevalence of smoking at post-test (one year after pre-test and the beginning of the intervention) was significantly lower in the experimental group (6.4 per cent both post- and pre-test) than in the control group (11.4 per cent post-test compared to 5.5 per cent pre-test)."

b. How did the intervention affect mediating variables related to substance use in the Y-ultimate target group?

"There was a significant difference between the experimental group and the control group concerning knowledge about substance use. Knowledge was higher in the group that had received the intervention. None of the other variables yielded significant results. No group differences were found for positive attitude towards taking drugs, intention to use drugs, or positive norms concerning drug use."

c. *How did the intervention affect other mediating variables in the Y-ultimate target group?*

"So far, significant differences were found only for one mediating variable. Mean values for social competence were significantly higher in the experimental group than in the control group ($p < .05$)."

d. *How did the intervention affect objectives in the Yintermediate target group?*

"Our mass media campaign had a positive influence on the intermediate target groups (parents and teachers). Eighty per cent said they now think more about their responsibility for children and adolescents; 61 per cent said they had learned a lot about substance misuse; and 45 per cent said they now think more about their own consumption of alcohol and tobacco."

e. *Are different subgroups affected differently by the intervention? (e.g., men/women, age groups, risk groups, etc.)*

"After the intervention, girls showed an enhanced knowledge about drug use behaviour compared to boys (t-Test $p < .05$)."

3.5 Discussion of the results of outcome evaluation

a. *Did the intervention achieve the expected outcomes? Discuss any discrepancies between expectations and results addressing possible reasons and their impact on the study.*

At this point, you should try to anticipate any arguments against your interpretation of the outcome results.

"One of the objectives of the intervention was the enhancement of life skills. At present, only one mediating variable was significantly different at post-test - a scale measuring social competence. Children in the experimental group showed significantly greater improvement between measurements than the children of the control group. Since the scale measuring social competence contains some behaviours that are important elements of the prevention intervention (e.g., learning to say 'no'), the improvement of the experimental group can be seen as confirmation of the success of the programme. Together with a lower prevalence of smoking in this group, it is also an indirect confirmation of the theoretical assumption that improvement of life skills is an important primary prevention intervention."

- b. *What do you think are your most relevant and significant results? Compare these with results from other studies.*

"A similar primary prevention effect on smoking (namely, the delay of initiation into smoking) has frequently been reported as a result of life skills training (e.g., Botvin, 1995)."

- c. *How certain are you that the intervention caused the results? Are there any alternative explanations for them?*

Without an answer to these questions, doubt can always be cast on an intervention. It is extremely important, therefore, that you address the issue of cause and effect.

"Since we did not have a control group, we cannot say for certain that the effects are really caused by our intervention. An important influence to be considered is the maturing of the participants over the course of the year."

- d. *What explanation do you have for negative results?*

It can be very discouraging if an outcome evaluation does not show the expected result. However, there could well be a number of explanations for negative results, such as deficiencies in the intervention itself, its implementation (the process evaluation can be useful here to highlight relevant aspects), flaws in the design, inadequate measurement instruments (some could be too insensitive), or perhaps external problems not under the control of the intervention (a fire in a school, for instance). Whatever the reason, if you do find unexpected results, you should always try to find an explanation for them so that you can draw conclusions for the future.

"Contrary to our expectations, there were no effects on alcohol consumption. This might be due to the fact that the prevalence of alcohol consumption is very low in this age group, and so it is therefore possible that effects will occur later. A second follow-up will therefore be conducted after one year. It can also be argued that the topic of alcohol consumption is irrelevant for this age group."

- e. *Do you have any suggestions for the future use of similar interventions?*

You can now look to the future. Should other people copy your intervention, and if so, are there any modifications you would recommend?

"The positive outcome results justify an implementation on a much broader basis. However, the results of process evaluation should also be taken into account and changes in the structure of the training should be made according to the teacher comments."

f. *Do you have any suggestions for future outcome evaluations of this kind of prevention intervention?*

Your experiences and suggestions can be of crucial importance for other evaluators and practitioners. They can profit from positive results, but also from negative ones, by avoiding the duplication of mistakes. This is why complete honesty is essential.

"One reason for the lack of positive results may be the lack of high-quality instruments for pupils aged 10-12. Future research should therefore focus on the development and use of sensitive instruments for this age group."

Chapter Four: Communicating the Results

4.1 Development of a communication plan

a. *Who should 'be in the know'?*

Potential audiences include funding agencies, policy makers, administrators, the intervention's target group, service providers, community groups and the media.

"We have made our evaluation available to the partners in the project, the authorities and the public."

"First, we will inform the planning committee, as it is a primary user of information. We will give special attention to the committee chairperson, who has vast experience and is a respected opinion leader. We will inform her individually before the general committee meeting and discuss potentially controversial findings."

b. *When do they need the information?*

If you want the results of your evaluation to be useful, the timing of an evaluation report can be critical. You should take care not to wait too long before reporting results, as changes are more likely to occur soon after an evaluation and while the intervention is still vivid in people's memory. On the other hand, you should avoid reporting the results too early. Evaluators are often pressed to give a 'first impression' of effectiveness, but such impressions have limited use, as insufficient data will have been collected to allow for any valid conclusions. First impressions also tend to mean that 'last impressions' go unnoticed.

"There will be two intermediate reports and one final report to the funding agency. Teachers will be informed about results continuously in the meetings taking place every two months."

c. *What information will different people be interested in?*

Tailor your message to the audience. Remember at all times that different audiences will need different information. Staff, for instance, will probably be more interested than funders in the details of the implementation. The latter may also be too busy to read a full report, and so an executive summary is more important for them. Such a summary should contain a brief overview of the evaluation, an explanation as to why it was conducted, as well as the major findings, conclusions and recommendations.

"We will carry out team discussions with teachers as the main intermediate target group throughout the period of process evaluation and continually feedback the information we receive. The primary user of the outcome evaluation

is the funding organisation, which expects a comprehensive written report on the findings at the end of the evaluation."

d. Which written communication forms will you use?

Evaluation results can be communicated in a variety of forms, which again have to be chosen according to the relevant audience. Examples of written communication include the evaluation report itself, an executive summary, memos, press releases, articles in scientific journals or newspapers, posters and leaflets.

"We will produce a research report to be distributed to schools and other public and private agencies working in the field of youth problems and their prevention."

e. Which oral communication forms will you use?

Paper is not everything. In fact, many findings can best be disseminated through personal discussions, presentations at conferences or public hearings, and media appearances.

"Results of the programme will be presented at a National Association for Addiction conference, as well as during European Drug Prevention Week."

PART C: GLOSSARY

Adherence

Adherence describes one aspect of an intervention's implementation, along with Yfidelity and Yreinvention. It usually measures whether a programme was implemented in the experimental group and not in the Ycontrol group and whether both groups adhered to their respective experimental conditions. Indicators of adherence in the experimental group can include whether the programme was implemented sufficiently rigorously to conclude that it was delivered, or whether the programme was long enough for the target group to notice it.

Attitudes towards drugs

Attitudes towards drugs comprise all opinions, beliefs, and norms that people have of drugs. Examples include 'Drinking alcohol makes people act stupidly', 'people who use cannabis have more fun', etc. Attitudes towards drugs are Ymediating variables and are often used as an indicator in outcome evaluation, although a causal relationship to drug use behaviour cannot always be found. It is, however, believed that positive attitudes towards drugs will lead to an increase in drug use behaviour, whereas negative attitudes will decrease drug use behaviour.

Attrition

The investigation of drop-outs is crucial for medium- and long-term prevention interventions. A drop-out is an intervention participant who participated in the initial data collection(s), but who didn't remain in the sample for the length of the intervention or the data collection. A large number of drop-outs can threaten the validity of the outcome results as it builds in Ybias. It may also create problems for statistical analysis because of the smaller sample.

Barriers

The financial situation, staffing, politics, administrative difficulties and many other conditions can hinder the evaluation of any prevention intervention. Barriers could include a loss of funding, negative staff attitudes, a decision not to publish the evaluation report or a school's refusal to allow a student survey.

Bias

Bias refers to all kinds of unplanned and often unnoticed variations which occur during the data collection process and which can prejudice the results of the evaluation. An example of bias is the extent to which only specific subgroups of the designated target group participate in the intervention (only highly motivated children, for instance). Such a sample is 'skewed' and the results could be invalid. Bias can also be introduced via Attrition and logical mistakes in the evaluation design.

Control group

The control group is a group of people who do not participate in the prevention intervention that is being evaluated. Instead, it receives either no intervention or one not related to the intervention.

Control group design

The control group design (or 'experimental design') compares the data obtained from the Ycontrol group with the results from the experimental group to identify any differences in the variables which the intervention is supposed to change. There are two types of control group design: the 'true' experimental design and the quasi-experimental design. Under the first, participants are randomly assigned to groups. To ensure random allocation, each person or each group of people in a target population must have the same chance of being selected for either the experimental or the control groups. This is considered to be the optimal approach because it avoids systematic differences (e.g., Yselection effect, Ybias) between the groups and it increases the validity of outcome results. However, it is expensive and in the evaluation of prevention interventions, randomisation is rarely accomplished. Instead, quasi-experimental designs tend to be used, under which people are assigned to groups by other

procedures, such as matching (when a control group is selected that most closely resembles the experimental group).

Coverage

Coverage means the extent to which an intervention reaches its intended Ytarget group. It can be defined as the ratio between the number of actual participants to the number of intended participants, and a low coverage may increase the Ybias.

Cultural habits

In this context, cultural habits are substance use behaviours which are influenced by the cultural or social norms of a specific society. Examples include the consumption of wine with a meal in southern Europe or the consumption of beer after work in Germany. Cultural habits determine the use or non-use of drugs in social situations, the amount and frequency of consumption, and can influence the perception of drug use behaviour. One objective of a prevention intervention might be to change these cultural habits in a way that drug-free alternatives become more accepted.

Data quality

The quality of the data determines how an evaluation will proceed and what statistical procedures can be used. These statistical procedures are grouped as 'scales'.

The most primitive scale is the 'nominal'. In a nominal scale, objects and events are merely classified, such as male/female, smoker/non-smoker, etc. Nominal data can be analysed by such techniques as the Ychi-square test.

The next level is the 'ordinal scale'. This ranks objects and events (e.g., 1=very poor, 2=poor, 3=good, 4=very good), however it is not possible to add, subtract, multiply or divide numbers in an ordinal scale. Hence, the measurement for central tendency in ordinal data is, for example, the mode rather than the mean. Ordinal data can be analysed by such techniques as the Mann-Whitney U-Test or the Wilcoxon test.

The next level is the 'interval scale'. An interval scale allows us to say how far apart the scores are because each unit on the scale is of a fixed size (such as degrees in Celsius). Interval data can be analysed by the Yt-test or YAnalysis of Variance.

The highest level is the 'ratio scale'. This incorporates the concept of a 'true zero', which means that relationships between two scores are the same, such as in height or weight. Data in the social sciences are most frequently on the nominal or ordinal level, sometimes on an interval level and almost never on a ratio level.

Design

A design is a plan which indicates how often, when and from whom information will be gathered during the course of an evaluation. A good design is essential if the results of

an evaluation are to have any future use. A design with at least one experimental group and one Ycontrol group is known as a Ycontrol group design; a Ytime-series design uses only one experimental group but at least three data collections; and a design which does not use a control group or time series analysis is the Ypre- and post-test design.

Evaluator

The person who acts as the evaluator should be familiar with evaluation planning, social research methodology, statistical designs and related problems. They should have sufficient statistical knowledge to analyse the data gathered during the intervention's implementation and should be familiar with specific computer packages (such as SPSS, SAS). Since systematic evaluation is based on social science research, many evaluation specialists also have a basic social science training.

There are two basic models for the evaluator's relationship with the organisation carrying out the intervention - they can perform an 'internal evaluation' (when they are part of the implementing organisation) or an 'external evaluation' (when they may work for a research institute, consultancy or a university). There are pros and cons to both options. Since internal evaluators have better access to the programme staff and administration, they may have be more familiar with the intervention than an external evaluator. A lot of information that is gained informally will not be available to an external evaluator. Being well known and trusted, an internal evaluator usually finds the staff more willing to devote time to the evaluation, to admit problems and to share confidences. The results of the evaluation may also be fed back to the project staff more easily and more informally. The clear disadvantage to an internal evaluator may be a lack of objectivity imposed firstly by their dependence on the organisation and secondly by their personal relationships with the programme staff.

Internal and external evaluators can perform all three types of evaluation - the evaluation of planning, process and outcome. However, there are certain situations that are best suited to one or other type of evaluator. Evaluation of planning and process may be more appropriate for an internal evaluator whereas outcome evaluation may be better served by an external evaluator.

Exposure

Exposure measures how much of an intervention the target group actually experienced. This includes the number and length of intervention sessions and the materials used. The degree of exposure also relates to levels of participation and whether participants were actually reached by the intervention.

Fidelity

Along with Yadherence and Yreinvention, fidelity is an aspect of programme implementation. Fidelity measures whether the programme was implemented as originally designed - how true it stayed to plan. It can be measured either by an

evaluator's subjective judgement or by a more objective documentation of procedures, such as the delivery of the required number of programme sessions.

Incidence

Incidence is defined as the number of new cases displaying a particular phenomenon arising in a specific geographical area during a specific timescale.

Indicator

An indicator is a measure that reflects a particular problem or condition. Indicators are used to substitute for an objective or concept which cannot be measured directly or which will only be observed in the future. The selection of appropriate indicators has to be founded in the literature, theories or previous research. Indicators are used to measure the Yquality of implementation or the outcome of an intervention.

Instruments

Instruments refer to all the methods that are used to collect information on the target group, the evaluation, etc. The most widely used instruments in evaluation are self-report questionnaires, and other instruments include tests, ratings, Yinterviews and Yobservation instruments. It is advisable to use instruments with well-founded Yobjectivity, Yvalidity and Yreliability. The feasibility of the instruments should be pretested before using them on a wider scale.

Intentional changes

Intentional changes are initiated on purpose to improve the intervention or evaluation.

Intention to use drugs

The intention to use drugs is a Ymediating variable and is often used as an Yindicator in outcome evaluation. It deals with an individual's belief as to whether they will use drugs in the future. It is especially useful in primary prevention programmes which target young children, when it does not make sense to ask if they have already used drugs.

Intermediate target group

An intermediate target group is a group of people targeted by an intervention who play a mediating role. It is hoped that they will be able to influence the future Ysubstance use behaviour of the Yultimate target group by passing on the contents of the intervention. Multiplier-centred approaches, peer group approaches and family-oriented approaches are all examples where an intermediate target group is addressed.

Interview

In evaluation research, the interview is an instrument used to assess data on the implementation process and outcome. Interviews can differ in their degree of standardisation (structured, semi-structured or unstructured interviews), the type of contact (face-to-face, telephone or written), or the number of people interviewed at the same time (individual or group interviews).

Knowledge about substance use

This refers to the factual knowledge participants have about substance use. On the basis that 'knowledge is power', it is assumed that a lack of knowledge leaves people exposed to substance use, while an awareness of the relevant facts allows them to choose healthy lifestyle patterns. Knowledge about substance use is a Ymediating variable and is often used as an Yindicator in outcome evaluation.

Lifeskills

Lifeskills enable people to deal effectively with the demands and challenges of everyday life through the teaching of adaptive and positive behaviour. They enhance individual competence, reduce susceptibility to drug use and promote the health and well-being of children and adolescents. The following lifeskills are often targeted in prevention interventions: decision-making, problem-solving, creative thinking, critical thinking, effective communication, interpersonal relationship skills, self-awareness, empathy, coping with emotions, coping with stress, and resiliency.

Lifestyle

Lifestyle relates to specific Yattitudes towards drugs among certain groups and in specific social or environmental conditions. The dance-scene is an example of a lifestyle, where clubbing is associated with the use of synthetic drugs. A prevention intervention can have lifestyle change as one of its goals.

Mediating variables

Mediating variables are supposed to be linked to substance use behaviour in that they encourage the changes in substance use behaviour brought about by the prevention intervention.

Two kinds of mediating variables can be distinguished:

mediating variables that are directly related to substance use, such as Yknowledge about substance use, Yattitudes towards drugs, Yintention to use drugs and Ynorms

mediating variables that are only indirectly related to substance use, such as Ylifeskills, Yrisk factors, Y protective factors, Ystructural changes, Ylifestyle, Ycultural habits and Yproblem behaviour.

Needs assessment

Needs assessment (or needs analysis) is the systematic appraisal of the perceived phenomenon and the appropriateness of the proposed intervention. It is essential in order to avoid misjudging the size and character of the specific problem and therefore the need for the specific intervention. Different techniques can be used in needs assessment.

The 'key informant approach' involves the identification, selection and consultation of experts working in the field. The value of this technique is that a broad impression can be gained of the needs and services that are required for the target group. The limitation is that this impression could be based upon the experts' pre-existing prejudices or biased information. It is therefore a good strategy to draw up a question structure to be used with all the experts. This will allow for comparisons between the answers of different experts. The questions should address specific and concrete information (who, where, what and how) as another check against biased information.

The 'community forum approach' is based around an open meeting of community members. It can be used to gather information about the Y prevalence and Y incidence of a problem and about the characteristics of the target population. As in the key informant approach, there is still the chance of biased information, either because of an under-representation or over-representation of individuals affected by the problem within the community forum. Best results can therefore be obtained if the evaluator draws on a cross-section of the community. Again, it is helpful to ask specific questions to ensure the validity of the information.

The 'rate under treatment approach' estimates the target population by analysing the experience of a similar prevention activity in another community. The assumption underlying this approach is that the characteristics and size of the two groups will be similar.

The 'indicators approach' estimates the target population on the basis of epidemiological data from national statistical sources. These statistics are normally generated by various government agencies. Often data are available on the populations of, cities, towns and counties.

Finally, specially commissioned surveys to assess the nature and extent of the specific problem are among the most direct and often the most accurate way to estimate the need for an intervention.

Norms

Norms are unwritten rules of behaviour that are cognitively represented as beliefs or opinions. In the context of substance use, normative beliefs have been identified in empirical research as strong Ymediating variables for initiating Ysubstance use behaviour. One objective of a prevention intervention can be to influence or to change these normative beliefs.

Objectives

Objectives are specific and measurable statements regarding the desired outcome of the prevention intervention. For evaluation purposes, the formulation of objectives must specify the variables to be changed and establish measurable success criteria. A plausible, testable assumption must link programme activities to objectives, and objectives to intended outcomes. Unless vague goals are formulated into specific objectives, it will not be possible to implement an intervention or to assess the effectiveness of the intervention.

Objectivity

Objectivity is, along with Yreliability and Yvalidity, an important indicator for the quality of an Yinstrument. It refers to the fact that the results yielded by the instrument must be independent of the person measuring the data - different people using the same instrument should come to the same results.

Observation instruments

Observation instruments are used to assess a specific situation or condition. In the case of prevention evaluation, observation is usually used to measure the implementation of an intervention, especially its Yfidelity. It is used either as the sole source of information or as an additional source to validate other measures of implementation. Observation by research staff or independent observers is considered the most objective measurement, and it can be carried out either in narrative detail or by using standardised question structures or rating schemes.

Observer

An observer attends a prevention intervention activity to listen to and see the verbal and non-verbal behaviour and the interaction of participants and project organisers. In contrast to everyday observation, this empirical observation requires a plan which specifies the behaviours to be viewed, whether an interpretation of the observation is allowed, and where, when and how the observation takes place and is recorded.

The observer should be introduced to the concept of the specific prevention intervention in order to better understand the meaning of the observation, without explaining the specific evaluation hypothesis to avoid observer bias. Additionally, they should be trained in the use of observation instruments.

Prevalence

Prevalence is the number of cases with a given condition or characteristic in the population of a particular geographic area at a certain time (e.g., the number of people who have taken cannabis in the last year).

Prevention intervention

A prevention intervention describes an activity that will be carried out in order to prevent a substance use behaviour. Prevention interventions can be realised in different settings and with different methods and contents. The duration can vary between one-off activities and long-term projects running for several months or more.

Pre- and post-test

The pre- and post-test design is a simple way to plan an outcome evaluation without the benefits of a Ycontrol group. In this design, the only people measured are those who receive the intervention. They are tested (for example, on their knowledge, attitudes or intentions) before and after the intervention. The differences between the two measurements are then checked for statistical significance. The advantage of this design is its simplicity and the fact that it is not very time consuming. The major drawback is that without a control group, you will not know whether the results are really due to the intervention or to some other confounding factors.

Problem behaviour

Certain problem behaviours can be considered Yrisk factors for drug use. These can include inappropriately shy or aggressive behaviour, lying, stealing, truancy, anxiety, etc.

Protective factors

Protective factors are a personal or social condition that are assumed to decrease the probability - in this case - of substance misuse. They are therefore the mirror to Yrisk factors. They may alter, or even reverse, predictors of negative developments and enable individuals to cope with negative life events. Individual protective factors that are consistently identified in the literature include social competence, problem-solving skills, autonomy and self-efficacy, sense of purpose and managing the future. Examples of protective factors within the family are care and support, boundary setting, high consideration of the children and encouraging childrens' participation and involvement. More general protective factors include success in school and strong bonds with prosocial institutions.

Qualitative approach

In qualitative approaches to evaluation, the aim is to understand a programme or particular aspects of it as a whole. Instead of entering the study with a pre-existing set of expectations for examining or measuring processes and outcomes (Yquantitative approach), the emphasis is on detailed description and in-depth understanding as it emerges from direct contact and experience with the programme and its participants. Qualitative techniques rely on observation, interviews, case studies, and other means of fieldwork. It can be appropriate alone or in combination with quantiative approaches, for

example when a programme emphasises individualised outcomes, when there is concern for programme quality, or when the goals of a programme are rather vague. Qualitative data can not easily be summarised in numerical terms, but they may be transformed in Yquantitative data.

Quality of intervention implementation

The quality of implementation refers to how the participants or the practitioners rate the intervention and its quality. Indicators relating to perceptions of the intervention could include the acceptance of its contents, the degree of identification with or credibility of those contents, satisfaction with the intervention, personal benefit, and relevance to the problem. Indicators which relate to perceptions of the intervention's quality could include the persuasiveness of the practitioner, their motivation, and the interaction between practitioner and participants.

Quantitative approach

Quantitative data are observations that can easily be represented numerically, such as answers to structured questionnaires. Quantitative approaches to evaluation are concerned primarily with measuring a finite number of specified outcomes. The emphasis is on measuring, summarising, aggregating and comparing measurements and on deriving meaning from quantitative analyses. Techniques often used in quantitative approaches are experimental designs and employment of control groups. They are particularly important when the primary aim of the evaluation is to establish programme effectiveness (Yqualitative approach).

Questionnaire

A questionnaire is a list of questions, the answers to which can be systematically assessed. Depending on the answering mode there are questionnaires with open answers (where the person has to formulate the answers themselves) and questionnaires with closed answers (where they have to choose between several possible answers).

Reinvention

Reinvention is an aspect of implementation along with Yadherence and Yfidelity. It refers to alterations in programme contents and implementation from the originally developed standard. It differs from lack of adherence by involving intentional and planned changes which were initiated in order to enhance the programme's effectiveness (as opposed to lack of acceptance, non-cooperation or unplanned change). Reinvention is especially important when programme effects could be boosted by tailoring its content to certain environments or populations.

Reliability

Reliability, Validity and Objectivity are important indicators for the quality of an instrument. The reliability of an instrument is defined as the degree to which identical scores or values would be obtained in repeated data collections with the same subjects. Reliability ratings show whether the instrument yields consistent results. The effect of unreliability is to dilute or obscure real differences when they exist. If, for example, the outcome of an effective intervention is measured with an unreliable instrument, it may appear to be less effective than it actually is and vice versa.

Risk factors

Risk factors are personal or social conditions that are assumed to increase the probability of - in this case - substance misuse. They therefore mirror protective factors. Evidence suggests that children who are socially incompetent and aggressive are at greater risk of developing drug problems than those who are better integrated. A number of studies have shown that antisocial behaviours such as aggressiveness can predict - as early as the 1st grade - an early initiation into substance use and later substance misuse. The literature differentiates between early childhood risk factors (such as lack of social competence, lack of social support in the family), late childhood risk factors (lack of problem-solving skills, detrimental family norms, lack of self-esteem) and adolescent risk factors (negative influence of peers, reduced self-esteem due to adolescence).

Selection effects

Selection effects reduce the representative nature of a sample. They can refer to the fact that the easiest to reach participants are also the most likely to change. Projects relying on voluntary cooperation are therefore most often affected by selection effects. (See also Bias.)

Statistical methods

Depending on the kind of data, there are a number of different statistical procedures which have to be used when making group comparisons. Examples of procedures for group comparison of two variables include the chi-square test, the t-test, and Analysis Of Variance (ANOVA). Procedures for more than two dependent variables are called 'multivariate comparisons', and an example of this is the Multivariate Analysis Of Variance (MANOVA).

For the analysis of repeated measures (e.g., pre- and post-test), statistical procedures have to be used that are suitable for dependent samples. This means that chi-square tests cannot be used.

In order to compare outcome data with process data, 'regression analysis' has to be used. This procedure determines, for example, whether and to what extent the effects of an intervention are due to the way it was implemented.

Chi-square test

The chi-square test is used to compare data from two or more different groups. It can be used for categorical variables such as gender (as opposed to continuous variables such as age). The test converts a variable into categories and computes a 'chi-square' statistic. The statistic thus calculated provides information on whether the groups are comparable or whether they are significantly different.

T-test

The t-test checks whether the mean of a variable for subjects in one group differs significantly from that in a control group, and it can be used on samples which are independent from or dependent on one another.

Analysis of variance (ANOVA)

ANOVA is used to examine differences in the means of two or more independent groups, analysing how unlikely any observed difference would be in a set of random samples from a single population.

Structural changes

The structural approach aims to change the environment - including the social environment - so that individuals are more likely to behave in a desired way. Structural approaches include projects which address drug-related social problems, counselling centres for partner problems, and drug-free alternatives like youth centres and sporting facilities.

Substance use behaviour

Substance use behaviour refers to the consumption of a substance. Substance use behaviour can be described in terms of the substances used (alcohol, heroin, cocaine, cannabis etc.), the patterns of use (occasional use, regular use, recreational use, misuse, addictive use, etc.) and the frequency of use.

Target group

The target group is the group of people, households, organisations, communities or any other identifiable unit which a prevention intervention is directed towards. Two kinds of target groups can be identified: Y-ultimate target groups and Yintermediate target groups. A careful analysis and estimation of the size and nature of the target group are

essential preconditions when documenting the Yneed for a prevention activity. It will also increase the quality and effectiveness of the project.

Ultimate target group

The ultimate target group is the group of people who will finally profit from the intervention. They can be addressed directly by the intervention or indirectly via the Yintermediate target group. In the identification of the ultimate target group two concepts may be used - the concept of population at risk, and the concept of population at need. The first covers a segment of the population with a high probability of developing the substance use behaviour (e.g., children from broken homes, children with drug dependent parents or siblings). In contrast, the term 'population at need' defines the target population as a unit with specific characteristics (e.g., all 5th graders).

Unexpected changes

Unexpected changes in the programme implementation or evaluation are changes or deviations from the programme plan that were unplanned and unforeseen. They can be negative in their consequences (lack of programme acceptance, school district changes, budget cuts, etc.). But they can also be positive, such as unexpectedly high participation rates and additional sponsors.

Validity

Validity, Yreliability and Yobjectivity are important indicators of the quality of an instrument. Judgements of validity answer the question whether an instrument really measures what you want to know and whether it is appropriate.

Varying perspectives on need

Potentially, professionals, policy-makers and Ytarget groups all have different perspectives on what constitutes a problem. What appears as a problem in one group may not be perceived as such by another. Research obviously cannot settle the issue of which perspective is the 'right' one, but it can eliminate conflicts that might arise from approaching drug phenomena from different perspectives. Part of the planning evaluation may include Y needs assessment from the several perspectives that may be involved in the intervention.

LITERATURE

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