

EMCDDA MANUALS



European Monitoring Centre
for Drugs and Drug Addiction

Prevention and Evaluation Resources Kit (PERK)

A manual for prevention professionals

4



European Monitoring Centre
for Drugs and Drug Addiction

Prevention and Evaluation Resources Kit (PERK)

Legal notice

This publication of the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) is protected by copyright. The EMCDDA accepts no responsibility or liability for any consequences arising from the use of the data contained in this document. The contents of this publication do not necessarily reflect the official opinions of the EMCDDA's partners, any EU Member State or any agency or institution of the European Union or European Communities.

A great deal of additional information on the European Union is available on the Internet. It can be accessed through the Europa server (<http://europa.eu>).

Europe Direct is a service to help you find answers to your questions about the European Union
Freephone number (*):

00 800 6 7 8 9 10 11

(*) Certain mobile telephone operators do not allow access to 00 800 numbers or these calls may be billed.

Cataloguing data can be found at the end of this publication.

Luxembourg: Publications Office of the European Union, 2010

ISBN 978-92-9168-415-1

doi: 10.2810/27577

© European Monitoring Centre for Drugs and Drug Addiction, 2010

Reproduction is authorised provided the source is acknowledged.

Printed in Luxembourg

PRINTED ON WHITE CHLORINE-FREE PAPER



European Monitoring Centre
for Drugs and Drug Addiction

Contents

Contents	3
Introduction	7
What is PERK?	7
Logic model	9
PERK details and background	11
Step 1 — Needs assessment	17
Detailed aspects of needs assessments	19
Indicators	21
Utopia example	24
Step 2a — Clarify goals and a working hypothesis	27
Models and theories	28
Risk factors and protective factors	30
Indicators	30
Utopia example	34
Step 2b — Define contents and objectives	35
Theory	37
Common target groups in prevention	39
Indicators and objectives	44
Indicators	46
Utopia example	48
Step 3 — Select strategies and delivery	51
Utopia example	54

Step 4 — Feasibility check	57
Theory	60
Utopia example	62
Step 5 — Implementation and process evaluation	65
Theory	69
Regulatory framework	70
Indicators	71
Utopia example	72
Step 6 — Outcome evaluation	75
Theory, terminology and options	80
Indicators	84
Utopia example	85
Step 7 — Wrap-up and conclusion	89



Introduction

What is PERK?

This Prevention and Evaluation Resources Kit (PERK) compiles basic but evidence-based prevention principles, planning rules and evaluation tips. Additionally, it provides related documentation or references for download; it is hoped that this additional material will be particularly useful for readers who have difficulty accessing the scientific prevention literature. To illustrate the theoretical discussion, an intervention example, partly based on a real-life situation, gives a practical perspective.

PERK promotes the notion that prevention planning and evaluation are interlinked, i.e. that intervention and essential research on it should not be separated. This is especially important with a view to the modern and more realistic concepts of theory-based evaluation.

PERK is an open tool. Sensible and sound suggestions and additional resource documents, including those in languages other than English, are very welcome provided that they contribute substantially and objectively to the knowledge base of PERK. This report has been compiled by Gregor Burkhart. For any suggestions or additional content, please send an e-mail to gregor.burkhart@emcdda.europa.eu.

Important note: Several of the documents which are available for download from the PERK site are from other organisations. We always mention the main website from which the document originates. In order to keep PERK operational and stable, it was necessary to make the instruments directly downloadable from this site instead of providing direct links to the document location on other organisations' websites, as link locations are often subject to change, which would result in broken links.

For whom is it intended?

PERK provides support to:

- prevention policy planners, for example, by providing information on which strategies are effective or on how to determine whether a project (proposal) is sound and well designed;
- prevention professionals and project developers, through the provision of background literature, theories, references and evaluation tools.

Finally, an additional aim of the PERK exercise is to develop a first common draft of minimum prevention principles and standards for the European Union, similar to the NIDA's 'Red book' ⁽¹⁾.

How is PERK organised and what can you find?

Planning – PERK invites users to take a step-by-step guided tour through the development of an intervention and through the available knowledge base in prevention. Along the way, they can gather – or revise – ideas and suggestions on how to plan and design an intervention and its evaluation, depending, of course, on their available resources and the setting.

To aid planning, we have compiled materials, sources and instruments to support the setting up and evaluating of prevention interventions. Most materials and ideas came together in several training sessions on evaluation and prevention in Germany, Greece, Spain, Ireland, Italy and Portugal. On these occasions we realised that prevention professionals need information on prevention models, theories and evaluation principles: not only about elements that work, but also about others that are not helpful but often very popular.

Science base – PERK has been created to dispel the notion that everything in the field of prevention is a matter of opinion and perspective: there is now sufficiently strong evidence and a sufficiently robust theory base for practitioners and stakeholders to know what should and shouldn't fall under the heading 'prevention'.

Soundness for effective projects – PERK guides project leaders to develop effective interventions according to a logic model; by taking a step-by-step approach to the development of an 'evaluatable' prevention intervention, all objectives, working hypotheses, content and indicators are logically built on each other, are interconnected and are relevant in addressing a problem situation. This logical interconnection is also the backbone of the EDDRA system ⁽²⁾.

Materials – Most of the units of this prevention and evaluation resources kit make use of the material already existing in Europe or, sometimes, North America, and which has been tested and used by many professionals in nearly all Member States.

⁽¹⁾ <http://www.nida.nih.gov/Prevention/Prevopen.html>

⁽²⁾ <http://www.emcdda.europa.eu/themes/best-practice/examples>

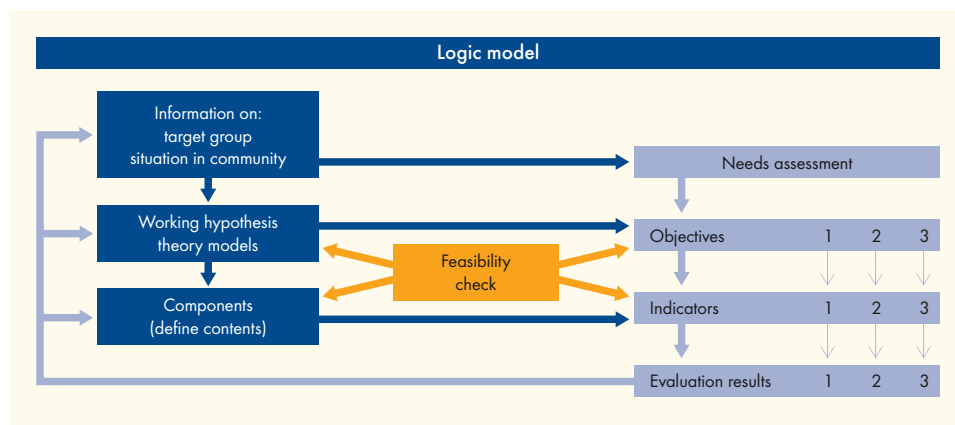
Logic model

What is a logic model? It is a simple means of defining, visualising and prioritising the elements of an intervention, right from the very beginning. In this way, everyone involved can view the different elements, concepts and stages in the programme. More importantly, logic models, especially in the area of drug prevention, allow you to prove and graphically demonstrate that your intervention consists of a coherent interconnected set of components which are logically related to and derive from each other. A logic model increases the potential efficacy of an intervention by fine tuning its elements in relation to each other and by allowing the continuous control of these logical relationships.

Logic models are now standard in programme development and evaluation, and for this reason we want to make you familiar with the principle by presenting PERK itself in the format of a logic model.

There are different ways of drawing logic models; the following is just one of many possible types, and is very similar to the structure used by EDDRA. Logic models are used increasingly often by several organisations (Center for the Application of Substance Abuse Technologies (CASAT) ⁽³⁾; please refer to the PERK resources page on the EMCDDA website, under <http://www.emcdda.europa.eu/publications/perk/resources/logic-model>) as a means of assuring high quality in prevention planning.

Figure 1: Logic model



⁽³⁾ <https://casat.unr.edu/bestpractices/search.php>

When you draw up a logic model, whether or not it is similar to this model, you need to ensure that there is a logical and plausible relation (coherence):

- between the assessed needs, the objectives and the indicators;
- between the indicators and the theory model used (the working hypothesis);
- between the objectives, planned actions/components and the available resources;
- between the objectives, indicators and the corresponding outcomes.

The logic model shown here will be the golden thread through PERK, and coherence questions will repeatedly be raised.

A logic model is a graphic representation of a programme that describes the programme's essential components and expected accomplishments and conveys the logical relationship between these components and their outcomes. It is usually limited to one page. There is no one way to represent a logic model; however, most logic models describe a programme in terms of four properties. These include: (1) the context; (2) the theory and assumptions that underlie the programme's intervention, (3) the intervention, and (4) the outcomes. Context refers to the background conditions in which the programme operates and which could have moderating effects on the programme's success. These include the geographic, economic, demographic, and political characteristics of the community where the programme resides, regulations and policies that govern the programme's operations, fiscal resources that finance the programme, and community resources that the programme might access. The context may also include the target population who are served by the programme. The theory or assumptions that underlie the programme's intervention refers to the theoretical construct that guides the design and development of the intervention that addresses the problems. The key activities are those components of the intervention that are assumed to be essential to achieve the intended outcomes. Finally, the outcomes are the effects of the intervention and are defined as short-, intermediate- or long-term ⁽⁴⁾.

More information on logic models:

<http://www.emcdda.europa.eu/publications/perk/resources/logic-model>

⁽⁴⁾ Conrad, K.J., Randolph, F.L., Kirby, M.W., Bebout, R.R. (1999) 'Creating and using logic models: four perspectives', *Alcoholism Treatment Quarterly*, Volume 17(1/2), pp. 17-31.

PERK details and background

What does this mean: 'prevention planning and evaluation are interlinked'?

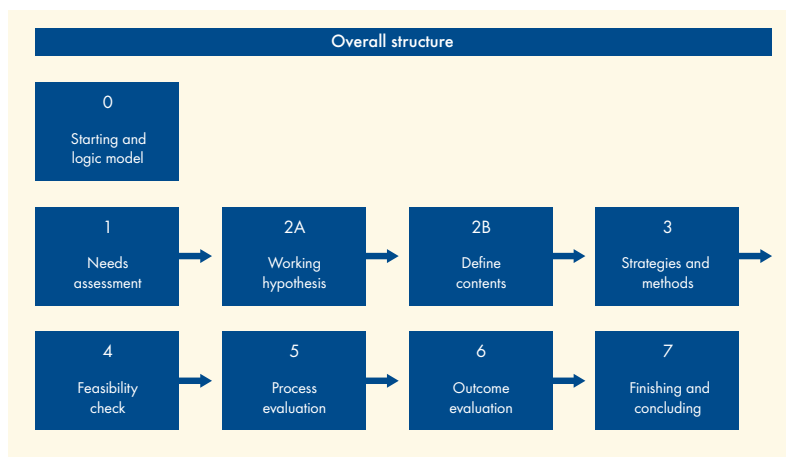
This is especially important with a view to the modern and more realistic concepts of theory-based evaluation: 'What works with whom in which context?'

For this purpose, evaluation must be closely interlinked with project planning and implementation rather than following a classical research approach. The latter works on the 'black box' principle, in which the outcomes of known inputs are recorded, without explaining how they were achieved and under which conditions they can be replicated. Thus, PERK strongly supports its users in defining and establishing working hypotheses and in controlling context (social, normative, cultural) factors.

We want to demonstrate that evaluation and prevention principles are intrinsically intertwined: reflections about how to evaluate an intervention are actually similar to those about how to set up a good intervention. A well-planned programme must from the very beginning take into account the means by which it can be evaluated. Therefore, in the following pages, we do not make a sharp distinction between prevention planning and evaluation, as these elements in a logical model depend on each other.

How is it organised?

Figure 2: Overall structure



Planning

To aid planning, we have compiled materials, sources and instruments to support the setting up and evaluating of prevention interventions. Most materials and ideas came together in several training sessions on evaluation and prevention in Germany, Greece, Spain, Ireland, Italy and Portugal. On these occasions, we realised that prevention professionals need information on prevention models, theories and evaluation principles: not only about elements that work, but also about others that are not helpful but often very popular.

Implementation

To aid implementation, PERK includes prevention components that have proved to work, but it also presents (and comments on) those components that are popular but for which there is no proof of effectiveness, such as information provision only or affective education. The statements, recommendations and resources in PERK are based on the latest, state-of-the-art findings in prevention literature and reviews. Its contents have been developed with the help of renowned European prevention experts ⁽⁵⁾ and were agreed in a meeting with experts and representatives from EU Member States ⁽⁶⁾.

Materials

At every step, PERK includes a Resources section comprising relevant reports from Europe and abroad that give deeper insights into the issues presented. In the Theory section, especially for Step 2 on 'working hypothesis and prevention components', you will find short introductions to each term and, where possible, a statement of its value for prevention. Accordingly, PERK provides the references and abstracts underpinning these statements. In the main steps, concerning evaluation questions, we would always refer to the EMCDDA Guidelines for the evaluation of drug prevention ⁽⁷⁾. For questions of programming and for practical examples we often refer to the structure and the principles of EDDRA and provide, for illustration, links to selected projects

⁽⁵⁾ Anne-Marie Sindballe (Denmark); Teresa Salvador (Spain); Eszter Nadas (Hungary); Mark Morgan (Ireland); Liliana Leone and Monica Ruffa (Italy); Ernestas Jasaitis (Lithuania); Katarzyna Okulicz-Kozaryn (Poland); Harry Sunnall (United Kingdom).

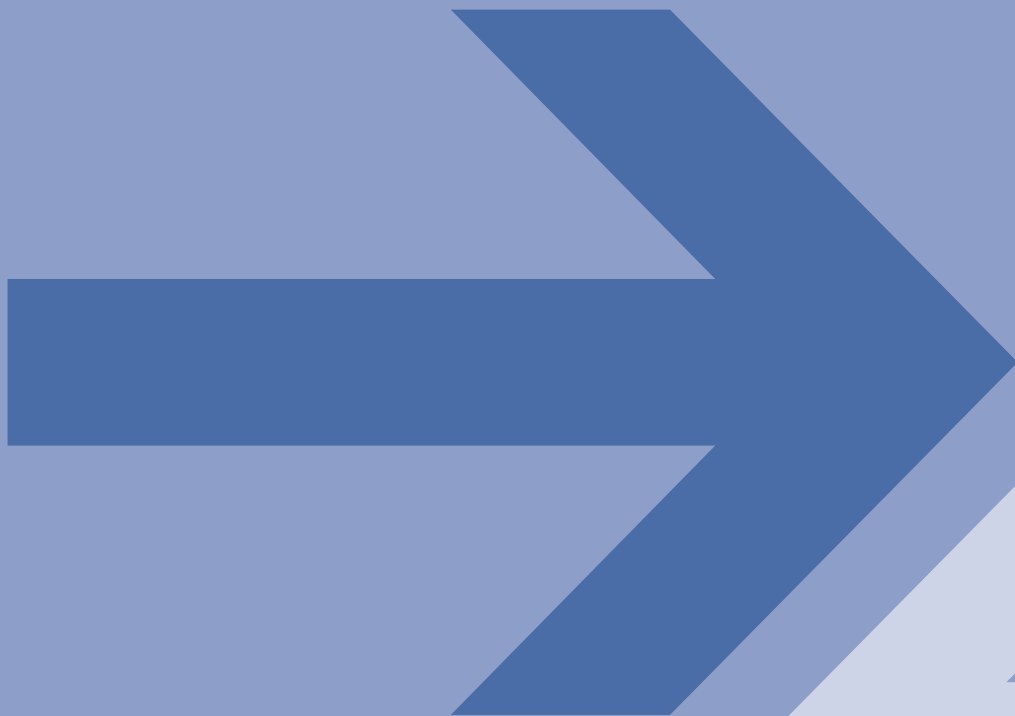
⁽⁶⁾ Marie-Claire Lambrechts (Belgium), Pavla Lejkova (Czech Republic), Sonia Moncada (Spain), Ioulia Bafi (Greece), Ieva Matisona (Latvia), André Gageldonk (Netherlands), Janusz Sieroslawski (Poland), Marta Silva and Sandra Simões (Portugal), Zuzana Voitová (Slovakia), Leena Warsell (Finland), Michela Morleo (United Kingdom), Ann-Christin Olsen (Norway).

⁽⁷⁾ <http://www.emcdda.europa.eu/publications/manuals/prevention>

in EDDRA. Concerning indicators and instruments you will find mostly references to the EIB, the Evaluation Instruments Bank of the EMCDDA ⁽⁸⁾.

Additionally, the module provides materials from online sources in English (and sometimes Spanish and German).

⁽⁸⁾ <http://www.emcdda.europa.eu/eib>



STEP ONE

1

Step 1

Needs assessment

At this initial stage, you need to analyse the problems you want to target with the planned intervention, as well as prevailing factors that may impede or support your planned intervention.

Demands from policymakers or stakeholders to initiate an action are often based on a preconceived perception of the problem: so begin by (re-)formulating some questions that will help you to find out what you want to know or confirm about the initial situation in the community or target group. This will enable you to collect the pertinent information you need to plan your intervention according to 'your' specific demands in a targeted way.

It is important not to waste time or resources: new or large studies are not always needed. First, determine what you know already by asking stakeholders, searching for additional existing sources and interpreting existing data. See the Utopia example on page 24.

At this point, you need to demonstrate to the stakeholders and those providing support/funding how and why your intervention is necessary and you will begin to formulate a hypothesis on which to base your intervention. Therefore, you need to consider a wide range of information sources on different aspects of the target population and area, although you may not use all of these.

Obviously, the needs assessment can be undertaken at several levels depending on the complexity of action you want to take. A single project examining a specific area would not need to consider all aspects of needs assessment. We propose suggestions for your consideration. However, it is helpful to position the planned project within its environmental context: it is a matter not only of assessing whether there is a drug problem and its extent, but of determining the wider social picture by means of global indicators and conditions. These indicators might not change as a result of your intervention but they define your range of action and potentials. This helps you to stay realistic, to focus on reasonable objectives (in the next step) and to avoid blind activism.

At the end of this step, you will ideally have achieved the following:

- you will have set a broad goal for the scope of your intervention;
- you will know whether you want to opt for universal, selective or indicated prevention interventions, or a combination of these;

- you will be able to explain why, where, for whom and how your intervention should be carried out and why it should be carried out by your team;
- you will have drawn up an exhaustive description of the contextual situation of the targeted community/group;
- you will have gathered global indicators and data on the risk situation of the target population;
- you will have information on the cultural and normative obstacles in the area;
- you will have defined which is the main target group of your intervention.

Logic model key question: Is the need for an intervention justified by the data you can present? For what kind of intervention?

Problems you will face if this phase is not carried out correctly:

- you will fail to gain an understanding of the problems and needs of the population you are targeting. This might arise if you focus too much on their drug use/abuse and miss out other relevant psychosocial risk profiles;
- you will miss the most important areas or groups for intervention where the greatest effects could have been achieved;
- you may present an unrealistic estimate of the expected impact of your intervention as important countertrends and other cross-currents are not accounted for;
- you may fail to convince funding organisations and stakeholders about the relevance and quality of your approach;
- you may not gain the support of your target population if their needs are not clarified;
- you may fail to formulate measurable and relevant objectives. This jeopardises the evaluation and your credibility.

Key questions from the EMCDDA – guidelines for the evaluation of drug prevention

Problem

1. What phenomenon do you want to prevent with the planned intervention?
2. What are the socio-demographic characteristics of people affected by the phenomenon compared to those who aren't?

3. Where does the phenomenon occur, and where doesn't it?
4. How long has the phenomenon been known about? Has its size, impact and relevance changed over time?

Concept

1. Which explanation for the origin of the phenomenon do you prefer?
2. What factors are responsible for the continuation of the phenomenon?

Needs

1. How many people are affected by the phenomenon? How many new cases are there and how often do they appear? (Prevalence, incidence)
2. How do you expect the phenomenon to develop if nothing is done? On what grounds do you believe this?
3. How would you describe the need for the intervention?
4. Are there different opinions as to the need for an intervention? (Varying perspectives on need)
5. How did you assess the need for an intervention? (Needs assessment)

Please refer to the PERK resources page on the EMCDDA website, under <http://www.emcdda.europa.eu/publications/perk/resources/step1>

Detailed aspects of needs assessments

Again, the choice of methods and sources for needs assessments depends on the scope of your envisaged actions. Very often, a little qualitative analysis and its interpretation are useful to provide an orientating overview on which other quantitative sources and indicators to use. Unless you have a very generous budget, specific surveys are not a good choice. Think about what you know already about the target group and how and where you might get additional information in the local area. There are two different dimensions you might want to address: the description of the initial problem and the context factors that will condition the success of your intervention.

Aspects to explain the problem situation

- Epidemiological situation: drug use, treatment demand from a given area, smoking prevalence, alcohol problems.

Be careful when using epidemiological data from Europe or other countries. Differences between countries and regions regarding specific aspects can sometimes be significant and in this case, it is dangerous to extrapolate information.

- Social conditions: living conditions, (youth) unemployment rates, violence, the use of legal substances and, for instance, pharmaceutical products in the families.

Please refer to the PERK resources page on the EMCDDA website, under <http://www.emcdda.europa.eu/publications/perk/resources/step1>

Aspects to explain the starting conditions of the intervention

- Normative framework: price of legal drugs, availability of legal and illegal drugs, regulatory measures against sale, promotion and consumption of legal drugs.
- Culture (pressure to consume): importance and influence of the tourism and leisure industries, drinking habits, drinking norms and cultural views on (legal and illegal) drug use; the promotional activities of the tobacco and alcohol industries, level of acculturation.

Please refer to the PERK resources page on the EMCDDA website, under <http://www.emcdda.europa.eu/publications/perk/resources/step1>

Methods

You do not necessarily have to conduct your own studies. A great deal of information exists already and you just have to find it. Ambitious prevention leaders frequently make the mistake of carrying out relatively large new studies and surveys to plan and justify an intervention, and then find themselves short of resources for implementation and evaluation. Often, useful and meaningful data already exist and there is no need to spend scarce project resources on new studies.

If you do want to carry out additional studies, remember that instruments for needs assessment can also be found in the EIB (Evaluation Instruments Bank) and that qualitative research methods can add significant explanatory elements (background information) to your existing data and hypotheses.

For example, you may choose to interview key people and target group members, carry out case studies or form focus groups: explore RAR (rapid assessment and response) ⁽⁹⁾ methods. See EIB – examples on RAR ⁽¹⁰⁾.

It is sometimes helpful and very convincing to plot data (e.g. on risks, problems or problem perception) in a map or other graphical format ⁽¹¹⁾. This shows that you are able to work in a well-defined and targeted manner.

But beware of information overkill! As mentioned at the beginning, adapt the amount and level of information collected to the scope of your envisaged action and, above all, be realistic about your capacity to use, process and interpret it.

Indicators

Be aware that some of the indicators are culturally sensitive and are examples for you to select the most suitable.

Make sure, though, that they are appropriate for the cultural and social context of your intervention.

Consider always to use additional qualitative indicators.

These are some useful indicators taken from the EIB:

- Normative influences: <http://www.emcdda.europa.eu/html.cfm/index3296EN.html>
- Parental risk factors: <http://www.emcdda.europa.eu/html.cfm/index3334EN.html>
- Perceived access to drugs: <http://www.emcdda.europa.eu/html.cfm/index3349EN.html>
- Perception of parental conflict: <http://www.emcdda.europa.eu/html.cfm/index3356EN.html>
- Problem use of alcohol (French): <http://www.emcdda.europa.eu/html.cfm/index4366EN.html>
- Perception of drug problems: <http://www.emcdda.europa.eu/html.cfm/index3139EN.html>
- EU-Dap – process: <http://www.emcdda.europa.eu/html.cfm/index5109EN.html>

Here are some examples for indicators in different areas and of different levels.

⁽⁹⁾ <http://www.who.int/docstore/hiv/Core/Contents.html>

⁽¹⁰⁾ <http://www.emcdda.europa.eu/html.cfm/index6500EN.html>

⁽¹¹⁾ <http://www.emcdda.europa.eu/publications/perk/resources/step1>

Indicators you might find at local level – probably your first and most feasible choice

- Local sports teams and events sponsored by the alcohol and tobacco industry
- Points of sale of alcohol and tobacco
- Relation between prices of each drug and purchase power of the population addressed
- Availability of drugs
- Annual rates of traffic accidents related to alcohol and other drugs
- Rates of crimes and criminality related to the use of drugs
- Annual rates of school failure, absenteeism and episodes of violence, by educational level
- Indicators of participation in pro-social activities
- Social demographic indicators, economic status, level of divorce, composition of families.

Indicators you might find at regional or national level – give a broad background perspective

- Legal framework (fines, laws on possession, consumption) as an indicator (EMCDDA 'Strategies and impact' programme ⁽¹²⁾)
- Consumption of legal psychoactive medicines, also from market indicators
- Price of psychoactive substances, especially legal ones
- Investments in direct alcohol and tobacco publicity
- Investments in indirect alcohol and tobacco publicity
- Investments in promotional strategies and activities made by the alcohol and tobacco industries
- Information on youth media and their influence on youth culture ⁽¹³⁾

⁽¹²⁾ <http://www.emcdda.europa.eu/policy-and-law>

⁽¹³⁾ <http://www.emcdda.europa.eu/themes/monitoring/youth>

Indicators related to drug use

- Annual rates of first drug use by new consumers
- Age of beginning use of different psychoactive substances
- Appearance of the consumption of new psychoactive substances
- Consumption per capita of legal drugs
- Rates of morbidity and mortality.

Indicators of incidence of social problems related to drugs

- Annual rates of morbidity attributable to each psychoactive substance
- Annual rates of mortality attributable to each psychoactive substance (to include mortality by acute reaction, and mortality by use of each substance (legal and illegal drugs)
- Annual rates of mortality and injury by traffic accidents in the presence of alcohol or other drugs.

Utopia example

This example is based on the Stay-in-school programme, an EDDRA entry from Ireland (¹). It was, however, modified and anonymised.

The main target group for the STAY project is children and young people between the ages of 10 and 15 within the Utopia area who have been identified as being at risk for early school leaving. Participants in the project are primarily drawn from three local schools in Utopia: two primary schools and one second-level school. Within Utopia, a number of areas have been categorised as being disadvantaged. It was these areas, and in particular the young people residing there, that the STAY project sought to target.

Overall, Utopia has quite a young population with a high immigrant proportion; data from the 1996 census of Nowhereland showed that over half the population of Utopia at the time of the census were under the age of 25, and 65 % were from diverse ethnic groups. The promoters of the STAY project recognised that, with such a large young population, the potential existed for an increase in what was already identified as a serious issue for the Utopia area, namely early school leaving. The 1996 census data showed that 41.7 % of the adult population of Utopia left school at or before 15 years of age; this was in contrast to a national figure of 35 %. Furthermore, the promoters of the STAY project had long recognised the link between early school leaving and drug misuse. Figures from the Nowhereland Drug Treatment Reporting System (NDTRS, 2007) showed that 463 people reporting for treatment for drug misuse had an address in the Utopia area (8.2 % of the national figure). Of these, 58.2 % reported having left school at or below the age of 15. In addition, (NDTRS, 1998) data showed that the proportion of first-time contacts reporting for treatment with an address in the Utopia area was approximately 9.9 % of all first-time treatment contacts. Local data on violence and petty crime were not available at the starting date.

In summary, the background to the emergence of the STAY project was recognition by interested parties in Utopia that a combination of factors that were prevalent in the Utopia area could potentially lead to a serious drug misuse problem among young people in Utopia. For example, a number of areas in Utopia had been designated as disadvantaged areas; over half the population of Utopia were under 25; over 40 % of the Utopia population had been early school leavers; and NDTRS data showed that over half of Utopia residents reporting for treatment for drug misuse had left school at 15 years of age or under.

(¹) http://www.emcdda.europa.eu/html.cfm/index52035EN.html?project_id=2247&tab=overview

STEP TWO

2

Step 2a

Clarify goals and a working hypothesis

You now need an overall goal for your intervention and some idea of the processes through which this objective will be reached.

You and the other stakeholders should be clear about which mechanisms your prevention intervention will utilise and what effect you hope it will achieve. This is the working hypothesis; this stage is essential to demonstrate to stakeholders that your intervention can effectively respond to the needs and the problems identified in the previous step. At this stage, people often rely too much on intuition and do not question their own assumptions. However, you do need some theoretical package to help you formulate your goals.

Theories predict the effects of changing certain variables. When proven theories are the basis for defining objectives, the prevention intervention can be described as 'theory led'.

In the case of a theory-led prevention programme, how the different components respond to identified needs and how these components interact is based on published research evidence. This is reassuring for stakeholders and community leaders. For this purpose, some knowledge of the main theories in prevention ⁽¹⁴⁾ is necessary, and you will decide which one responds best to the problems you have just identified. See the Utopia example on page 34.

At the end of this step, you will ideally have achieved the following:

- you will understand the theory on the origins of the problem and the proposed modification. You will have identified the causes of the problem, the risk factors and how the problem can be solved;
- the intervention and its change model is justified and theory-led and you will be able to supply evidence for this;
- you will have identified what you want to achieve and in/with whom regarding substance use and mediating variables. Coherence between objectives and working hypothesis will have been secured;
- the target group is well defined (there may be an intermediate target group).

⁽¹⁴⁾ <http://www.emcdda.europa.eu/publications/perk/resources/step2a/theory>

Logic model key question: is there coherence between the chosen working hypothesis and objectives and the previously described needs?

Problems you will face if this phase is not carried out correctly:

- you may encounter more resistance from your target group, because of (cultural) inappropriateness;
- you may not convince funding organisations and stakeholders about the relevance and quality of your approach;
- you may fail in formulating measurable and relevant objectives – this jeopardises the evaluation and your credibility.

Questions from the EMCDDA guidelines on evaluation of prevention:

Problem

1. How will the intervention affect substance use behaviour in the ultimate target group?
2. How will the intervention affect mediating variables directly related to substance use behaviour in the ultimate target group (knowledge about substance use, attitudes towards drugs, intention to use drugs, norms)?
3. What objectives are considered for other mediating variables (life skills, risk factors, protective factors, problem behaviour, structural changes, changes in lifestyle and cultural habits)?
4. What is the relationship between these mediating variables and substance use behaviour?
5. What are your objectives concerning the intermediate target group?
6. How are the objectives for the intermediate target group and the Y-ultimate target group related?

Models and theories

Most theories are based on what happens when variables are modified. In the case of drug prevention, the usual variables are risk factors and protective factors. So this is time to translate the information on risks and problems that you have gathered previously (needs assessment) into clearly and simply denominated risk (and protective) factors. Previous research will help to put these risk/protective factors in context, enabling known risk groups to be identified. Simply put, some theories explain why people use drugs or develop drug problems. What may be more interesting are other theories which explain why some people do not develop drug problems despite being exposed to drugs and other threats.

Formulating theories and building models is not simply an academic exercise – it also has enormous practical advantages.

- Theories provide concrete elements or components that reduce or increase the likelihood of drug use or drug problems, for instance, accurate normative beliefs, internal locus of control, social skills, etc.
- Theories describe how these components interact to reinforce or undermine each other, and ultimately how they influence drug use behaviour; see the example of reasoned action attitude model (Fishbein-Ajzen) ⁽¹⁵⁾.
- They give for your project description a realistic and logical overview on how the intervention is supposed to work and shows that it is based on grounded theory. This proves that the mechanisms you assume in your project (e.g. increasing social and academic competence diminishes school failure and affiliation with drug using peers and prevents, therefore, persistent drug use behaviour) have been investigated and confirmed by research already.
- In practice, in most cases, theories also suggest which variables (i.e. evaluation instruments) to consider using to measure intervention effects.
- A solid theory base protects you, on the one hand, from instinctive activism (you can show why you set up your intervention as you did) and, on the other hand, from diffuse hyper-theories that attempt to take into account every social, personal, biographical and biological aspect of human behaviour, great or small.

First, define general objectives on the basis of the risk factors you want to target and the theories which connect them.

The following are examples of the most commonly used theoretical models in prevention. You can also use other models or theories you know.

You can be eclectic here and select one or more most suited to your community's initial situation. However, be aware that not all models fit all conditions and, in particular, that not all models work well in all situations, e.g. the information model has a low value in modifying health behaviours.

For additional resources, please refer to the PERK resources page on the EMCDDA website, under <http://www.emcdda.europa.eu/publications/perk/resources/step2a>.

⁽¹⁵⁾ <http://www.emcdda.europa.eu/publications/perk/resources/step2a/theory>

Risk factors and protective factors

In what follows, we have compiled non-exhaustive examples of several types of risk and protective factors that have been identified in several international research studies. When applying them to your intervention, bear in mind the following caveats:

- Several of these factors are culturally sensitive and might therefore have different (or no) relevance in different cultures. Context is very important.
- Some factors change from risk to protective as a result of their interaction with other factors.
- Some factors are relevant only in the presence of others.
- The combination of several of factors increases the risk (Newcomb et al., 1986 ⁽¹⁶⁾). The presence of only one risk factor is not usually relevant.

Thus, once again, it is very important always to have a theoretical framework in mind. Such a model can lead you to select relevant risk/protective factors and to put them into a sensible and plausible context. In this way you will achieve a comprehensive knowledge of which risk factors, in the presence of which others, and under which socio-cultural conditions, are important and need to be addressed in your intervention. In short, Table 1 on page 31 is meant to give you ideas and food for thought; it is not intended to be a ready-to-use shopping list ⁽¹⁷⁾.

Indicators

Below are some useful indicators from the Evaluation Instruments Bank:

- Risk and protective factors (survey)
- Problem behaviour
- (Anti) Social behaviour (aggression)
- (Anti) Social behaviour (in Portuguese)
- Perception of social support/order
- Bonding to parents and family
- Bonding to conventional institutions

⁽¹⁶⁾ <http://www.emcdda.europa.eu/publications/perk/resources/step7>

⁽¹⁷⁾ Canning, U., Millward, L., Raj, T. and Warm, D. (2004), *Drug use prevention among young people: a review of reviews*, Health Development Agency, London.

Table 1: Risk factors and protective factors

	Risk	Protective
Environmental/contextual	<ul style="list-style-type: none"> • High drug availability • Low socio-economic status • Drug-using peers • Delinquent peers 	<ul style="list-style-type: none"> • Pro-social adult friends • Pro-social peers • High socio-economic status
Family	<ul style="list-style-type: none"> • Parental substance abuse and deviance • Low parental monitoring • Parental rejection • Parent-child attachment • Poor disciplinary procedures • Family conflict/divorce • Familial/environmental • Predisposition/addicted parents • Low parental expectations • Family disruption including employment 	<ul style="list-style-type: none"> • Absence of early loss or separation • Cohesive family unit • Parent-child attachment • High parental supervision and monitoring • Consistent, age-appropriate discipline • Adult monitoring and/or supervision • Family problem solving ability • Family members can communicate supportively • Significant attachment to pro-social adult • Family members value education
Individual biography	<ul style="list-style-type: none"> • Early onset of deviant behaviour, smoking and drinking • Early sexual involvement • Early onset of illicit drug use • Rapid escalation in substance use • Positive expectations and knowledge about substance use • History of behaviour problems 	<ul style="list-style-type: none"> • Late onset of deviant or substance-using behaviours • Negative expectations and cognitions about substance use • Religious involvement

Table 1 continued		
	Risk	Protective
Personality	<ul style="list-style-type: none">• Strain/stress• Depression• Aggression• Impulsivity/hyperactivity• Antisocial personality• Sensation seeking• Mental health problems	<ul style="list-style-type: none">• High self-esteem• Low impulsivity• Easy temperament
Educational	<ul style="list-style-type: none">• Poor school performance• Low educational aspirations• Poor school commitment• Absence, truancy and drop-out• Little formal support	<ul style="list-style-type: none">• Good teacher relations• High educational aspirations• High parental educational expectations• High educational attainment• Good formal support in education
Neighbourhood	<ul style="list-style-type: none">• Availability of drugs• Availability of firearms• Community norms tolerant of violence• Community norms tolerant of substance abuse• Low neighbourhood attachment• Community disorganisation• Transitions and mobility• Poverty	<ul style="list-style-type: none">• Access to quality prenatal healthcare• Access to quality paediatric/adolescent healthcare• Access to quality mental healthcare• Community norms against crime• Community norms against substance abuse• Community norms against violence• Neighbourhood attachment and organisation• Residential stability• Increase in jobs with a family wage

Table 1 continued

	Risk	Protective
School	<ul style="list-style-type: none"> • Antisocial behaviour • Academic failure • Lack of commitment to school 	<ul style="list-style-type: none"> • Parent-teacher cooperation • Specialised instruction for at-risk students • School-work transition programmes
Peer/Individual	<ul style="list-style-type: none"> • Alienation from mainstream • Favourable attitudes toward problem behaviour • Friends engage in problem behaviour • Early initiation in problem behaviour (1) 	<ul style="list-style-type: none"> • Committed to some form of pro-social ideology • Pro-social attitudes • Friends do not engage in problem behaviour • Friends disapprove of problem behaviour

(1) Borgensneider (1996); Catalano, Hawkins, Berglund, Pollard and Arthur (2002); Elliott, Wilson, Huizinga, Sampson et al. (1996); Jessor, Turbin and Costa (1998); Lerner and Castellino (2002); Sampson, Morenoff and Earls (1999), PFS Academy: Partnerships for success: 2004 planning workshops. Community planning team workbook, Ohio, United States.

Utopia example

This example is based on the Stay-in-school programme, an EDDRA entry from Ireland. It was, however, modified and anonymised.

Working hypothesis

General objective

To prevent problem drug use by keeping young people from Utopia at risk for early school leaving in mainstream education.

Theory model

The working mechanism here is that, when 'at risk' children are maintained in mainstream education and integrated into mainstream culture, there is a reduced risk of these children engaging in problem drug use. The assumption is based on the social development model by Hawkins and Catalano. This would also imply that early school leaving and lack of socio-cultural integration among young people living in disadvantaged areas can be a precursor to substance misuse. This relationship is supported by recent research which found that the percentage of people seeking drug treatment who are early school leavers (leaving at or below compulsory age) has remained quite stable in Nowhereland at around 45–50 % in the last five years, despite efforts to increase the percentage of the age cohort who complete the leaving certificate. According to the adopted working mechanism, the key problems in Utopia that need to be addressed in this intervention are academic performance, social and cultural competence and personal skills such as employment-seeking skills. Following the social development model, improvements in these variables would break the chain between social exclusion, deviant peer inclusion and drug use.

Step 2b

Define contents and objectives

You should now, based on your chosen working hypothesis (see Step 2a), begin to take definite decisions on implementation, on the actual content or components of your intervention. Set priorities among the possible components or strategies your programme could have. Remember that the content of your intervention should be scientifically defensible. For this purpose it is advisable to consult the evidence on prevention in the Best practice portal ⁽¹⁸⁾. It is helpful to describe the content in terms of known prevention components and it is an advantage if there is a sufficient knowledge base on their effectiveness ⁽¹⁹⁾ under given conditions. For instance, raising self-esteem is not an effective component in universal prevention but might be helpful in selective prevention (with vulnerable young people). See the Utopia example on page 48, under 'Components'.

Define specific objectives. This means that breaking down your general objective from the working hypothesis into several (up to three) specific objectives, stating in (if possible) quantitative and measurable terms, what concretely you want to achieve by when (timeframe), in which population (for whom). For more detail, please refer to common target groups in prevention (see page 39).

Specific objectives should always relate to changes in the target groups. So that the outcomes are clearly measurable, always phrase the objectives in indisputable terms, e.g. 'by the end of the six-month intervention, the proportion of daily cannabis users among participants will have decreased by at least 10 % and their social skills will have increased by 5 % (scores) on average'.

The objectives need not necessarily relate to drug use but each of them, if achieved, should lead plausibly to fulfilment of the general objective. Be sure (based on the previous steps) that the objectives are realistic and achievable! Be careful also to include the important contributions that only qualitative research can yield, in order to later explain and contextualise the results. See the Utopia example on page 48, under 'Specific objectives'.

Note: objectives concerning the delivery and content of your intervention are operational objectives and are dealt with in the next step!

⁽¹⁸⁾ <http://www.emcdda.europa.eu/themes/best-practice/evidence>

⁽¹⁹⁾ <http://www.emcdda.europa.eu/publications/perk/resources/step2b/theory>

All the objectives should be verifiable. Thus, at this step you also need to do the following.

Define indicators. The indicators should be very closely connected to the specific objectives. Ideally, one or more indicators should reflect each of the specific objectives defined. Not all indicators need to be about drug use. Indicators on mediating factors are useful too and are sometimes more feasible at the beginning. In the long run, however, drug use-related indicators should always be included. In particular, if your programme is built upon a well-described working hypothesis, you will readily be able to demonstrate that previous studies (from which your theoretical models are derived) established a predictive relationship between intermediate variables/indicators (e.g. assertiveness) and drug use/drug problems. See the Utopia example on page 49, under 'Indicators of the above'.

At the end of this step, you will have ideally cleared the following issues:

- The most effective components have been selected. The most feasible component (in view of limitations) has been selected. The components are clearly and concisely described.
- The components selected result naturally and logically from the working hypothesis. They are evidence or experience based.
- The content of the intervention is the most suitable combination of elements for the defined target group.
- Indicators to assess outcomes of the target group as well as of the individuals in it are established and defined.

Logic model key questions: Is there coherence between the chosen components and their underlying working hypothesis? Is there coherence between the chosen components and objectives? Is there coherence between the chosen objectives and indicators?

Problems you'll face if this phase falls on its face ...

- You may fail to set clear and convincing objectives or there may be no suitable indicators to assess the progress of your target groups, or the indicators may be irrelevant.
- If you do not set reasonable specific objectives it is unlikely that you will be able to prove that any change arose as a direct result of your intervention.
- You may choose an approach that is known to be less effective than others.

- The content and components of your prevention interventions may be not in accordance with the state of the art of prevention research.
- The contents of your intervention may be far beyond what is realistically achievable.
- Stakeholders may not be interested in your proposal as it has no sound and promising evidence base.
- You may fail to fit your intervention's content to the needs and problems of your target group.
- You might waste time and resources and lose credibility in pursuing useless approaches.

Questions from the EMCDDA guidelines on evaluation of prevention

Problem

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

Please refer to the PERK resources page on the EMCDDA website, under <http://www.emcdda.europa.eu/publications/perk/resources/step2b>

Theory

Components – Knowledge base on effectiveness

The available evidence regarding the value (or otherwise) of some standard components of prevention programmes or of isolated interventions can be found at the links listed below and as a condensed synopsis in the Best practice portal ⁽²⁰⁾. The nomenclature adopted here is the same as that under which prevention strategies are analysed, compared and discussed in the research

⁽²⁰⁾ <http://www.emcdda.europa.eu/themes/best-practice/evidence>

literature and in evaluation exercises. Consequently, these links are an important aid to achieving a common understanding and a harmonised terminology when communicating at European level about prevention programme contents and strategies. These prevention components are also part of standardised information collection instruments used by the EMCDDA to collect information on prevention from Member States. They will help us to work together using common definitions across Europe.

Basically, most prevention interventions that are minimally structured (as opposed to ad hoc interventions) and based on international references can be characterised by one or more of the following prevention components. Most programmes have more than one component.

The value of several of these components depends largely on how (by which delivery technique, Step 3) they are implemented. For instance, the development of 'social skills' is a highly effective component when delivered interactively, but this is not similarly true of a classroom talk about social skills.

- Knowledge (about drugs and consequences)
- Affective education
- Personal skills
- Social skills
- Normative education
- Alternatives to drug use
- Regulatory measures – environmental prevention strategies

Note:

Life skills includes Social skills plus Personal skills plus Knowledge. Comprehensive social influence approaches include all of the above as well as Normative beliefs and values. Affective education is sometimes, but not always, a part of both.

More information can be found at <http://www.emcdda.europa.eu/publications/perk/resources/step2b/theory>.

Common target groups in prevention

The identification of target groups is obviously most common in the case of selective prevention strategies, where the interventions focus mostly on specific target groups based on research on risk factors and known risk groups.

However, even in the case of universal prevention, components may be tailored to different age groups, each with different needs and receptiveness.

This page presents background material on target groups and scenarios of selective prevention and indicated prevention in Europe.

Please refer to the PERK resources page on the EMCDDA website under <http://www.emcdda.europa.eu/publications/perk/resources/step2b>.

School drop-outs and truants

Young people who are excluded from school or leave school prematurely are at risk of social exclusion, homelessness and problematic drug use patterns. According to the UK lifestyle survey, levels of drug use are higher and heavier among truants and excludees than among school attendees. Drug use seems to be the reason for exclusion from school in only a minority of cases. Social marginalisation, delinquency and drug use are interconnected. Prevention interventions should therefore address social and behavioural factors than just drug use.

One aspect to address is simply the prevention of early school leaving. Other dimensions include antisocial behaviour, academic underachievement, low bonding and attendance to school and impaired learning because of incipient drug use. Selective prevention faces the challenge of selectively and positively addressing the main vulnerability factors for drug-related problems. This is especially demanding in the school setting for several reasons: partly mainstream prevention messages are health promotion and complete abstention from use; teachers receive minimal training in carrying out universal prevention activities and are not taught how to deal with 'difficult' or experimenting youngsters; and any drug-experimenting youngster is considered a candidate for drug or psychological treatment because of alleged 'personality gaps'.

Selective prevention interventions in the school setting vary widely among Member States depending on their different traditions. However, in most countries, there is believed to be a strong connection between drug use and (mostly preceding for many years) antisocial behaviour, and thus many projects address both of these issues. Therefore, in the drug research literature, it is

often suggested that prevention activities should start by targeting antisocial behaviour in primary school or even earlier; some encouraging results have been reported (see link to the indicated prevention section on the EMCDDA website ⁽²¹⁾).

Young offenders

The links between drug use and criminal offending are well documented: drug use is up to several times higher among juvenile offenders than among non-offenders. In addition, there is substantial evidence that vulnerability factors for substance abuse and delinquency overlap to a very large degree. Causal relationships are therefore difficult to establish: young drug users and young offenders probably constitute overlapping populations. This makes the criminal justice system an important setting for selective prevention interventions. Coordination between social (prevention) services and judicial services is a key factor and is not easy to achieve, as an evaluation of two pilot projects in the UK has shown. In most Member States, the legal provisions are in place to allow young offenders to be dealt with less severely (especially those notified for drugs offences for the first time), but detailed guidelines and concrete cooperation projects between services are seldom reported. When dealing with young offenders, it is important to bear in mind that early contact with the criminal justice system and more hardened offenders could do more harm than good.

Ethnic groups

Considering immigrants and ethnic groups in connection with vulnerability factors when planning of selective prevention interventions, should be undertaken with caution. Ethnicity by itself is not a vulnerability factor for substance abuse. However, in practice, ethnicity can be a useful construct for risk assessment, because vulnerability factors such as those mentioned above, e.g. low academic and/or socioeconomic status, social exclusion, impaired communication capacity and differing social norms and skills, as well as relatively low involvement in community affairs, often accumulate within some ethnic groups. Nevertheless, it is acknowledged that the relationship of drug problems with ethnicity is in reality somewhat complex and strongly influenced by socioeconomic status (Wallace, 1999) and identity conflicts.

Vulnerable ethnic groups vary between Member States (e.g. Russian-German repatriates in Germany, Maghreb immigrants in Spain), which confirms that ethnic or cultural differences alone do not constitute vulnerability. Thus, not all Member States report on interventions in these groups.

⁽²¹⁾ <http://www.emcdda.europa.eu/themes/indicated-prevention>

More targeted research and more political openness is needed to better explore and address this issue, without opening up debates about political correctness.

In non-European publications, the links between ethnicity/cultural identity and drug problems and prevention are addressed more openly and directly. Wallace and Muroff (2002) found that exposure to the vulnerability factors identified by Hawkins and Catalano (1992) ⁽²²⁾ differs significantly between African American and white youths. The former are more exposed to contextual (economic and academic) vulnerability factors, whereas the latter are more exposed to individual (sensation seeking) and interpersonal (peer use) factors. And the relationship between vulnerability factors and drug use was stronger among whites.

Addressing these issues is of major concern for prevention, for several reasons. Some ethnic communities consider themselves to be at higher risk (as exemplified by the ongoing study for *Connexion* in the UK among Chinese communities) and accordingly expect tangible responses for themselves. In addition, Scheier et al. (2001) showed that there is great potential for (through prevention) influencing personal risk/protective factors even in conditions of high perceived neighbourhood risk among ethnic minorities: the influence of environmental factors (neighbourhood risk such as gang activities, fighting, etc.) is strongly moderated by the presence of individual-level factors, which in turn are accessible to prevention interventions. In other words, individual psychosocial factors, especially social skills and interpersonal relations, can counterbalance the problematic socioeconomic conditions that some ethnic communities might face.

Party settings/partygoers

The IOM (Institute of Medicine) ⁽²³⁾ classification has facilitated the handling of interventions in party settings or, put another way, has enabled partygoers to be identified as a target group within selective prevention. The most important aspect here is not whether one actually consumes drugs within a party setting, but the fact that the organisation and cultural norms and values associated with these recreational settings increase normative beliefs of partygoers in favour of substance use.

The EMCDDA has carried out several studies on selective prevention in recreational settings ⁽²⁴⁾, and IREFREA has carried out several pieces of qualitative research on cultural norms and perceptions of drug use in party settings ⁽²⁵⁾.

⁽²²⁾ <http://www.emcdda.europa.eu/publications/perk/resources/step7>

⁽²³⁾ <http://www.iom.edu>

⁽²⁴⁾ <http://www.emcdda.europa.eu/html.cfm/index1569EN.html#recreational>

⁽²⁵⁾ <http://www.irefrea.org>

Deprived neighbourhoods

The main reason for addressing this theme is, again, a practical one: to obtain maximum value from public health resources, it is important to clarify how much available resources should be concentrated on which kind of responses for what kind of problems (Shamblen, S. and Derzon, J., 2009). In other words, regarding prevention policies, the challenge is to find constructs (for instance vulnerable areas or groups) that help to allocate prevention interventions where they are most needed and have the best chance of impact. At a theoretical and social level, it is not the intention here to contend that drug problems and socioeconomic status (poverty) are necessarily related. Smyth and Kost (1998) found that this often assumed relationship has been examined by only a few studies and that the available research does not suggest a direct, causal relationship, although a complex interrelationship between each socioeconomic factor (unemployment, availability of drugs, violence) and the individual is acknowledged. A working hypothesis for public health interventions must nevertheless assume that many environmental vulnerability factors accumulate in certain geographical areas or neighbourhoods and that the resilience of young people or communities can be fostered through interventions that concentrate on those areas. However, in some countries the use of socioeconomic variables in prevention planning is seen as classist or labelling.

Social groups with specific characteristics and socially disadvantaged neighbourhoods are likely to be subject to negative labelling in the population and mainstream culture. However, this occurs independently from and prior to expert assessments and prior to interventions targeted at these populations.

Identifying vulnerable groups or neighbourhoods and their needs with the aim of tailoring services to these groups does not substantially aggravate the existing labelling and discrimination, provided it can yield specific benefits for the population. In view of the recently raised profile of selective prevention interventions within the SAMHSA ⁽²⁶⁾ programmes, McGovern (1998) has analysed the conditions for addressing vulnerability while protecting ethical principles:

‘excessive protection, involving the most stringent regulations around privacy and confidentiality, may rob individuals and communities of access to needed services and, paradoxically, of help that may assist them to be more self-determining’.

The author’s proposals to find a balance between overprotection and labelling include, for instance, the involvement of the communities concerned in planning, implementation

⁽²⁶⁾ <http://www.samhsa.gov.us>

and evaluation instead of imposing programmes; and the principle of beneficence, i.e. the identification of problems (e.g. research, surveys, mapping) should be proportional to the support (services) provided for the problems that have been identified.

In principle, in any health and social system, labelling (e.g. being a *patient* or *pregnant* or *jobless*, and assuming the corresponding social role) has always been a prerequisite for the receipt of attention, support and special resources. On the other hand, 'egalitarian' and broad brush prevention strategies may accentuate social differences even more, because then those more in need than the better-off population segments (e.g. academic families) may be better able to appropriate scarce prevention resources.

Please refer to the PERK resources page on the EMCDDA website, under <http://www.emcdda.europa.eu/publications/perk/resources/step7>.

Vulnerable families

The influence of family environments on pathways to problem drug use is largely known; however, the importance of different variables (family attachment, drug-using parents, drug-using siblings, alcohol abuse in the family, family conflict) is controversial.

Repetti et al. (2002) have compiled a comprehensive and detailed overview on the influence of genetic, emotional and environmental factors (but not of sexual abuse) on the offspring of risky families. Socioeconomic status seems to be the most important influence factor, conditioning the other factors. The authors conclude that 'focusing on family characteristics that represent risk factors for (the exacerbation of) major physical and mental health disorders can provide the basis for early intervention that may at least partially offset the potential for cascading risk that may accumulate over the lifetime'.

Owing to the professional bias of drug treatment services, the issue of drug-using parents (who appear in treatment services) has been the subject of particular attention in public discourse, but should be dealt with caution, as drinking and family social problems are better predictors of adolescent substance abuse than parental illicit substance use. In addition, subgroups of adolescents who abstain because one or both parents is alcohol abusing have been identified.

For all the above reasons, it is difficult to compile intervention examples for this section. As in the case of vulnerable groups, it is likely that many interventions within broader social policies target families at risk but without any evidence that they aid drug prevention. They are therefore not mentioned in this report.

On the other hand, many typical interventions undertaken by drug care services, namely those that narrow the concept of 'family at risk' down to the drug abuse of parents, fail to take account of other relevant prevention and vulnerability aspects. Owing to the different weight given to these options in different Member States it is not possible to obtain a balanced picture of selective prevention interventions for families at risk.

Reviews on the evidence base of prevention are available on the PERK resources page on the EMCDDA website, under <http://www.emcdda.europa.eu/publications/perk/resources/step2b> and on the Best practice portal, under <http://www.emcdda.europa.eu/themes/best-practice/evidence>.

Indicators and objectives

What are indicators?

Indicators are simply one-dimensional measures that help you to measure, to express, or at least to reflect and to simplify the more complex formulation of your objectives. They allow changes in the target group to be observed over a period of time.

An indicator therefore reduces the meaning of your specific objective to a measurable or tangible variable. An indicator, as the name suggests, does not need to be an exact representation of its objective, but merely approximate it. Several indicators might be necessary. For instance you would translate the specific objective 'increase in social skills' into indicators such as 'assertiveness' ⁽²⁷⁾ and 'communication skills'. You can also monitor, using observation guidelines, changes in social interaction among the target group (qualitative research). Many instruments (mainly questionnaires) in the Evaluation Instruments Bank are helpful indicators for several parts of PERK.

Often, we distinguish between global indicators (see those used for Step 1), direct indicators about drug use, indicators on mediating variables (for instance, social skills) and indicators about a project itself. The last ones are indicators for process evaluation as they measure the extent to which the intervention's operational objectives (see Step 5) have been achieved.

All indicators (beside the indicators on the intervention itself) measure changes in the target group (its behaviour, knowledge, feelings and environment) in a given time frame: often between the beginning of the intervention and its end. Indicators are defined at the beginning of a project, at the point at which specific and operational objectives are set, never at the end. Outcome indicators relate the results of a project in the target group to its specific objectives (and the

⁽²⁷⁾ <http://www.emcdda.europa.eu/html.cfm/index3196EN.html>

underlying working hypothesis). Process indicators relate the outputs of a project (its deliverables, structures created, opportunities given, materials published) to its operational objectives. See Figure 3, below.

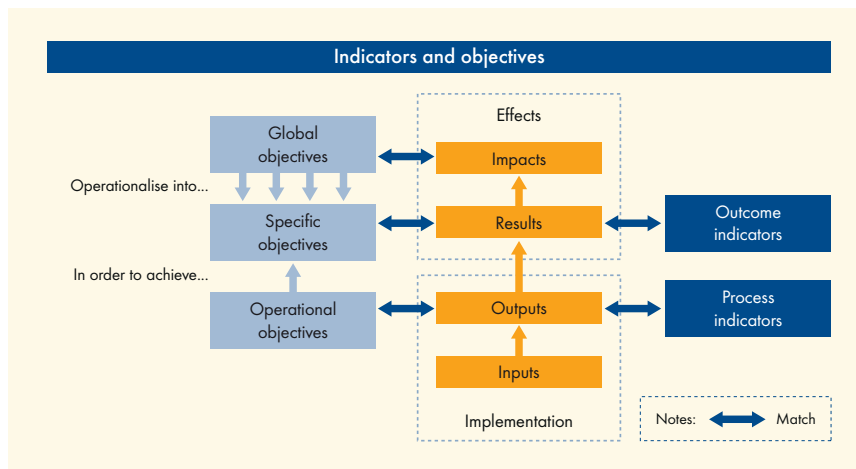
Indicators should be:

- specific regarding quantities, quality, time and situation;
- verifiable by statistical data, observation, registries;
- relevant in the context of the intervention.

In short, they have to be SMART: Specific, Measurable, Appropriate, Realistic, Time-bound.

Remember that the indicators are the essential link of coherence between the objectives and the results of an intervention. All three should logically result from each other.

Figure 3: Indicators and objectives



Indicators

Indicators on mediating factors

The following are useful indicators from the EIB:

- Risk and protective factors (survey): <http://www.emcdda.europa.eu/html.cfm/index3486EN.html>
- Assertiveness: <http://www.emcdda.europa.eu/html.cfm/index3196EN.html>
- Self-esteem: <http://www.emcdda.europa.eu/html.cfm/index3267EN.html>
- Decision-making skills: <http://www.emcdda.europa.eu/html.cfm/index3226EN.html>
- Problem behaviour: <http://www.emcdda.europa.eu/html.cfm/index3249EN.html>
- (Anti)Social behaviour (aggression): <http://www.emcdda.europa.eu/html.cfm/index3373EN.html>
- Demographic and family dimension: <http://www.emcdda.europa.eu/html.cfm/index3234EN.html>
- Perception of social support/order: <http://www.emcdda.europa.eu/html.cfm/index3238EN.html>
- Parental regulation: <http://www.emcdda.europa.eu/html.cfm/index3320EN.html>
- Bonding to parents and family: <http://www.emcdda.europa.eu/html.cfm/index3277EN.html>
- Bonding to conventional institutions: <http://www.emcdda.europa.eu/html.cfm/index3216EN.html>

Indicators on special groups and settings

The following are useful indicators from the EIB:

- Kinder Stark Machen (in German): <http://www.emcdda.europa.eu/html.cfm/index3382EN.html>
- Motivation and school attendance: <http://www.emcdda.europa.eu/html.cfm/index3385EN.html>
- Perception of aspects of school life: <http://www.emcdda.europa.eu/html.cfm/index3390EN.html>
- Involvement with parents: <http://www.emcdda.europa.eu/html.cfm/index3397EN.html>
- School achievement: <http://www.emcdda.europa.eu/html.cfm/index3409EN.html>
- Skills for primary school pupils (in Greek): <http://www.emcdda.europa.eu/html.cfm/index3186EN.html>
- Model questionnaire (in Slovenian): <http://www.emcdda.europa.eu/html.cfm/index3293EN.html>

Utopia example

This example is based on the Stay-in-school programme, an EDDRA entry from Ireland. It was, however, modified and anonymised.

Components

1. Academic and personal skills are targeted and improved in order to increase motivation and capacities of participants to stay (at best: successfully) in mainstream education and to set more ambitious long-term life and professional goals.
2. Social skills are addressed through several channels, including training in job seeking, self-presentation and approaching strangers. In order to engage youth and to interest them for these contents, alternative leisure-time activities are offered.
3. The STAY project develops a 'cultural awareness programme' as part of its activities. The rationale behind this development is based on the increasing number of people from different countries/cultures who are now living in Nowhereland, in particular in Utopia. The STAY professionals felt that young people need to be encouraged to appreciate cultural differences and to avoid racism and prejudice. This programme was developed around two key objectives: firstly, that the young people would develop an awareness and understanding of other cultures and, secondly, that the young people would be able to explore and discuss different cultures.

Specific objectives

1. To enable and stimulate participants to remain in mainstream education by the end of the intervention (one year).
2. To increase the social skills of the participants (youth at risk) by 10 % (on a quantitative scale) by the end of the intervention (one year).
3. To question (sub)culturally fixed behaviour and stereotypes, and to reduce related substance consumption among the participants by the end of the intervention (one year).

Indicators of the above

1. School attendance data on programme participants. Attendance rates and signs of active participation by participants in 'homework clubs'. The views of teachers and parents of participants to be sought regarding their assessment of participants' engagement with educational activities. School marks. Assessment of job-seeking skills and motivation.
2. Communication skills. Reported cases of violence. The views of teachers and parents of participants on social skills such as conflict solution and communication. Self-reported frequency of binge drinking.
3. Self-reported intensity of cannabis use. Self-reported frequency of binge drinking (as above). Observed cases of inter-ethnic quarrels. Observation of inter-cultural climate and relationships.

STEP THREE

3

Step 3

Select strategies and delivery

The effectiveness of your intervention will depend to a very large extent on how the selected components are delivered to the target groups and in which setting. Here we discuss the conditions necessary for a successful implementation.

Setting

Manual-based structured prevention programmes are best implemented in classroom settings, as they facilitate continuous contact under stable conditions. In the case of the family as a prevention setting, it can be difficult to involve parents (especially those at risk). The most difficult settings in which to attract and maintain contact with vulnerable target groups are community, party and youth group settings. The delivery methods need to be adapted accordingly. See the Utopia example on page 54.

Here are some examples of delivery modes:

- Mass media is typically used to deliver universal prevention to large target groups. The value of this method does not extend beyond information provision and awareness raising.
- Leisure-time alternatives are a common method of reaching vulnerable groups. They can be an important means for delivering social influence components.
- Peer-led approaches are used for school-based prevention as well as in community settings. They can entail several components, including normative beliefs ⁽²⁸⁾.
- Delivery through police officers is a typical (and contested) classroom approach, and is mostly only information based.
- Outreach or youth work techniques are essential for reaching vulnerable young people ⁽²⁹⁾.
- Motivational interviewing is a useful and effective delivery technique, especially for vulnerable groups and in unstable settings.

⁽²⁸⁾ <http://www.emcdda.europa.eu/publications/perk/resources/step2b/theory>

⁽²⁹⁾ <http://www.emcdda.europa.eu/html.cfm/index1576EN.html>

For more information, please refer to the PERK resources page on the EMCDDA website, under <http://www.emcdda.europa.eu/publications/perk/resources/step3/theory> and <http://www.emcdda.europa.eu/publications/perk/resources/step2b/theory>.

Regulatory measures are increasingly being recognised as important at a local level, especially because of their impact on normative beliefs and social rules. These measures, subsumed as environmental strategies ⁽³⁰⁾, can be important supportive measures, also at local level, because of their impact on the perception and acceptance of legal drugs and substance use in general.

Some strategies popular in current European prevention practice have been shown to have no positive effects, for instance visits from or lectures by ‘experts’ (including police officers) or even ex-drug addicts, one-off activities, drug days and other awareness-raising events. In all of these areas, there has been little or no research and there is no evidence of their effectiveness.

Programme-based or ‘integrated’ prevention? The strategy of training all teachers with a view to an ‘including prevention topics in every school subject’ has no known positive effects and requires many (staff and psychological) resources. All existing evidence suggests that effective prevention can be achieved at best through programme-based approaches. These protocols with manuals and exactly defined number, length and contents of sessions are also the only delivery methods that guarantee a high level of fidelity of implementation.

Additional variables to take into account in a good planning exercise are intensity – especially in relatively stable settings as school and family – and the degree of interactivity. The latter is a very important factor in nearly all prevention components.

At the end of this step, you will ideally have achieved the following:

- you will have selected the most important settings for your intervention, i.e. those where you expect your intervention is most likely to yield the expected results;
- you will have selected the most suitable delivery mode for this setting and the programme components;
- you will have an idea about length, frequency and number of the intervention sessions required;

⁽³⁰⁾ <http://www.emcdda.europa.eu/themes/prevention/environmental-strategies>

- you will have a realistic estimate of the degree of interactivity required and how this can be achieved.

Problems you will face if this phase is not carried out correctly:

- the components are effective and the design is good but the strategy is not effectively passed on to the target group;
- the intervention is implemented in a setting for which it was not designed.
- adherence among the target group is low;
- the strategy is popular and applauded by the uninformed, but is most probably ineffective;
- the delivery strategy is far too demanding, and logistically easier methods are available.

Questions from the EMCDDA guidelines for the evaluation of drug prevention

Problem

1. How long will the intervention last?
2. What is the planned timetable of the intervention (number of activities, duration and frequency of each activity, etc.)?
3. Do you plan to test the feasibility of the intervention?

Please refer to the PERK resources page on the EMCDDA website, under <http://www.emcdda.europa.eu/publications/perk/resources/step3>

For more information on the theoretical aspects, please go to the PERK resources page on the EMCDDA website, under <http://www.emcdda.europa.eu/publications/perk/resources/step3/theory>.

Utopia example

This example is based on the Stay-in-school programme, an EDDRA entry from Ireland. It was, however, modified and anonymised.

After-school setting

Academic activities: after school homework clubs, delivered through tutors.

Alternative leisure time activities: adventure, sports, cooking courses. As part of the cultural awareness programme, all participants will have the opportunity and the training to cook a dish representing other countries and will taste dishes from other cultures. All participants will design at least one symbol representing other countries and will make a new craft representing other countries. All participants will be given the chance to listen to the music of other countries or cultures and discuss and debate issues relevant to the countries. In essence, the learning methods employed include group discussion, cookery, craft, music and language. In addition, all participants will go to the ECO International Food Festival to get a better understanding of what they have learned in the projects.

Delivered through local cultural and social associations and agencies.

Social skills trainings: linked to the previous two. Delivered through voluntary trainers.

Family setting

Parents' evenings

STEP FOUR

4

Step 4

Feasibility check

The importance of this step lies in matching your theoretical framework (Step 2a) and needs assessment (Step 1) with your existing resources and the best strategies (Step 3). It is crucial to focus the efforts of your team on what is most needed and what you can realistically achieve. This helps to avoid the typical pitfall of extending the intervention beyond the capacity of your team and your financial resources. For example, adding an extensive family component to a school-based prevention programme is logistically difficult and consumes a great deal of resources; also mass media support is expensive notwithstanding the importance of incorporating these components (see the Utopia example on p. 62).

At this stage, you must also decide which kind of evaluation you can carry out or whether you will undertake any evaluation at all.

Often, the resources of potential partners are not fully utilised and there might be competition for resources within the same community. On the other hand, programmes sometimes consist of coordination only! When setting up a coordination structure such as a 'prevention platform', be sure that details, decisions and contents are agreed upon and are defined.

So, reflect on and openly discuss the following key points.

Delivery

- Is the methodology intended to be interactive? (This requires more intensive training and more highly skilled teachers.)
- If the prevention is school based, do you plan to train all teachers (an integrated approach) or implement a structured prevention programme (i.e. train only a few self-selected, motivated teachers who implement this)? The latter consumes much less resources for the same level of effectiveness.
- Classroom training of skills is not just talking/teaching about skills ...! Interactive skills training needs resources.

- Do you plan to use or to add peer-based approaches? Balance the benefit against the logistical needs and pitfalls.
- Is the scope of the intervention indicated, selective or universal or a combination? ⁽³¹⁾

Barriers

- Before implementing the intervention, anticipate and list the obstacles that are most likely to arise.
- Then write down possible solutions to each.

Resources

- Chart resources: volunteers, students (e.g. to help with questionnaires), community facilities.
- Determine your budget and material resources.
- List the number of professionals involved and their qualifications, as well as the time they are able to allocate to the programme.
- Professional, financial and logistical resources and know-how for carrying out a form of evaluation.
- Identify local sources of funding or other support. Remember that the structure of PERK is a good basis for writing a funding application.

Coordination

- Check (community) readiness: the available support as well as potential resistance.
- Identify other bodies (prevention centres, NGOs) or prevention programmes that address the same risk factors: which approaches do they use? Which risk groups do they target? What are common interests for coordination? Can you set up a working/coordination committee with them to avoid overlap?
- Can you make use of existing programmes? Are they suitable for your setting/target population?

Now you can focus your efforts on what is feasible and most effective, and you can pick effective and realisable contents from existing programmes ⁽³²⁾, if you do not want to develop your own approach from scratch.

⁽³¹⁾ <http://www.emcdda.europa.eu/publications/perk/resources/definitions>

⁽³²⁾ <http://www.emcdda.europa.eu/themes/best-practice/examples>

At the end of this step, you will ideally have achieved the following:

- you will have a hierarchy of desired content, areas and settings to be covered that allows you to prioritise objectives and match planning with realistic targets;
- you will have an estimate of the extent and potential of your human and material resources;
- you will have drawn up a resource map that includes all relevant external actors, programmes, institutions and collaborators;
- an assessment of the possibilities for cooperation or at least coordination with other parties will have been carried out;
- cooperation agreements, in which roles, timetables and responsibilities for activities are concretely fixed and explained, will have been drawn up.

Problems you will face if this phase is not carried out correctly:

- you may set unrealistic objectives and content which are difficult to achieve;
- you may create expectations that you cannot fulfil;
- your team is likely to become frustrated and get burned out;
- there may be overlap with other interventions in the same area as a result of lack of coordination or even unnecessary rivalries;
- there may be gaps in the implementation and the logistics of the intervention due to badly defined responsibilities for content, i.e. you may have planned an intervention that consists only of 'cooperation' and 'networking'.

Questions from the EMCDDA guidelines for the evaluation of drug prevention:

Problem I

1. What staff will carry out the intervention, and what are the qualifications required?
2. How time consuming will the intervention be for each of these people?
3. What is the budget and who is providing it?
4. What additional resources are available (e.g. people, organisations, rooms, materials, etc.)?
5. What could hinder the implementation or evaluation (barriers)?

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

Problem II

1. Is a process evaluation planned?
2. What resources do you have to perform a process evaluation?
3. Who will carry out the process evaluation?

Problem III

1. Is an outcome evaluation planned?
2. What resources do you have to perform an outcome evaluation?
3. Who will carry out the outcome evaluation?

Please refer to the PERK resources page on the EMCDDA website, under <http://www.emcdda.europa.eu/publications/perk/resources/step4>

Theory

Universal programmes: advantages and disadvantages

Advantages

- Avoid labelling or stigmatising individuals.
- Provide a setting and prepares way for targeted programmes. Provides possibility for focusing on community-wide and contextual factors.
- Behaviourally appropriate (e.g. high-risk children are not expected to change their behaviour when they are among children who have high levels of the same behaviour): no contagion effects of problem behaviour.
- Subgroups at higher risks benefit sometimes more than low-risk participants.

Disadvantages

- Might be unappealing to public/decision-makers.
- Small benefit to the individual.

- Effects fade out after some time.
- Might be perceived by low-risk population as being of little benefit.
- Difficult to detect an overall effect.
- High coverage is needed.

Targeted/selective programmes: advantages and disadvantages

Advantages

- Potential to address problems early on.
- Potential to address underlying vulnerability factors instead of drug use alone.
- Potentially efficient in directing resources appropriately and meaningfully.
- Early mobilisation of interdisciplinary resources.

Disadvantages

- Potential to label and stigmatise.
- Power to predict future disorder on an individual basis is usually weak.
- Risk of contagion effects (norm narrowing) especially when segregating young people at risk into peer-to-peer programmes (Dishion and Dodge, 2005).
- Reaching out, contacting and engaging vulnerable groups is difficult and requires resources.

Utopia example

This example is based on the Stay-in-School programme, an EDDRA entry from Ireland. It was, however, modified and anonymised.

Feasibility check

Step 4: Example

The local school council opposed direct involvement of local schools from the Utopia area because of fears of labelling of the participants and due to concerns about damaging the image of the local population.

The formal opposition of the school council prevented combining this selective prevention programme with any universal prevention activity in school premises and in classrooms with a more structural involvement of parents.

Therefore, concerning the implementation and evaluation, a standardised procedure of identifying at-risk youth/groups and including them in the interventions was not possible. Consequently, a controlled design using an urban area comparable to Utopia as a control group was not feasible under these circumstances. However, a pre-post evaluation design using the above-mentioned quantitative and qualitative indicators was considered realistic.

However, agreement was obtained to carry out some of the activities (the homework clubs) on school premises with the voluntary involvement of some teachers and senior pupils. Local social agencies (outdoor, sports) and cultural associations (cooking and handcraft) were keen to extend their existing activities to the participants in the intervention.

The issue of labelling participants by taking part in the intervention is avoided by offering the activities in an attractive and positive way. The engagement and active involvement of normally suspicious young people at risk is possible through the continuous club nature of the activities.

It was not possible to implement additional structural prevention measures due to lack of cooperation from bar owners, the local school council (no school policy) and the city council.

An agreement with a university within reasonable distance from Utopia enabled of an extension of the evaluation design in a rather important dimension: junior psychology students created diverse questionnaires as part of their studies. The budget did not allow the intervention to be extended to offer an intensive selective prevention measure to the families involved. Only some parents' evenings could be offered in order to ensure the cooperation of families.

STEP
FIVE

5

Step 5

Implementation and process evaluation

In this step, you begin to implement the intervention and at the same time to monitor the implementation. This requires systematically collected data on the project itself: its results, acceptance among the target groups and consistency of implementation. The most important aspect of this step is that it will explain how your intervention produced its outcomes, or why it did not. This is of the utmost importance: you should know and, if possible, control environmental factors. See the Utopia example on page 72, under 'Framework'.

Even if you have plenty of resources to carry out a thorough outcome evaluation, it is important to invest time and effort in a high-quality and informative process evaluation. This is especially important and feasible for interventions in more difficult settings such as with young people outside school, i.e. in community or party settings.

In a comprehensive theory-led evaluation, the operational objectives (see below), components, resources, process evaluation and outcome analysis would be considered together as a whole. Here, we separate them for learning purposes.

Operational objectives and working plans

First, you will translate (or operationalise) the specific objectives, from Step 2b, into operational objectives. These are the outputs or products of the intervention, for instance training sessions held, manuals published and distributed, teachers trained, schools involved, peers recruited, but also the demands for repetition of the intervention and the degree of acceptance. These are technical, intermediate aims in order to achieve the changes in the target group you have previously defined as specific objectives. See Figure 3: Indicators and objectives on page 46.

For an accurate implementation of the contents defined in Step 2b, you will probably organise the different activities to be carried out in task calendars and chronograms. This is especially important for effective communication between the partners involved. You will most likely want to define upfront the division of tasks and responsibilities and lay down concrete work plans and stages (who is responsible for which part). In addition, stakeholder maps and interest maps are very helpful at this step; see also *EMCDDA Manuals 2: Guidelines for the evaluation of outreach work* ⁽³³⁾. See the Utopia example on page 72, under 'Operational objectives and working plans'.

⁽³³⁾ <http://www.emcdda.europa.eu/publications/manuals/outreach>

Process evaluation

Process evaluation is the most frequent form of evaluation found in European projects and most projects in Europe do not go beyond this stage. It is, however, a crucial step in assuring the quality of an intervention. If the resources available for an intervention are too scarce to allow a significant outcome evaluation to be carried out, it is even more important to prove through process evaluation and programme monitoring that a proven approach (i.e. one already successfully evaluated elsewhere or confirmed in research literature) has been correctly implemented so that a positive effect can be assumed.

The related process indicators are indicators regarding the intervention itself, e.g. the accuracy of implementation, adherence to the original plan, the extent to which timetables are being met and tasks achieved, and whether data collection is running smoothly and correctly. See the Utopia example on page 72, under 'Process indicators for above'.

At this stage you must also balance the importance of fidelity against the need for flexibility in order to respond to the specific needs of the target group.

An important feature of process evaluation in terms of social dynamics with your partners and stakeholders is to use it thoroughly in order to:

- summarise and report back on advances, to keep the group on track;
- listen to and transmit opinions (e.g. on aspects that are not working as planned);
- consult the target group, the intermediate target group and staff and thereby to involve them in the evaluation;
- promote in your group the intrinsic value of evaluation as a means of empowerment.

Reinvention

Based on the data collected and feedback and information obtained you may need to make adjustments or bigger modifications to the implementation process or even amend the content of the intervention. For instance, some aspects of the intervention may not be well accepted or understood by the target group and need to be replaced by others. You should document the reasons for any modifications and implement any necessary changes in the data collection process.

At the end of this step, you will ideally have achieved the following:

- you will know how you are going to measure the process and the extent to which the implementation was in accordance with the plan of the intervention;

- you will have a timetable (chronogram) of the activities to be carried out and actually carried out;
- you will have an organisation chart on which the responsibilities of every partner involved, and the deadlines for their achievement, are clearly documented;
- you will have a dataset of activities carried out, people reached in the target group, the degree of acceptance of the intervention and various other process indicators;
- you will have a checklist of necessary changes and modifications carried out while assessing the implementation;
- you will have a clear notion on the quality of the intervention.

Logic model key questions: Is there a plausible connection between operational objectives and the previously defined working specific objectives (do they lead to each other)? Is there coherence between operational objectives and the components of the intervention (e.g. how does a counselling offer increase life skills)? Is there coherence between operational objectives and process indicators?

Problems you will face if this phase is not carried out correctly:

- without close monitoring of the intervention and quality control of its implementation, your intervention is likely to fail. According to the literature, programme failure is more frequently due to insufficient implementation than to insufficient design;
- your operational objectives have no logical and plausible connection with your specific objectives, so you cannot explain why, for instance, the distribution of a printed leaflet (operational objective) is supposed to increase social skills (specific objective);
- you will not be able to explain the outcomes of your intervention are more favourable outcomes than expected because you have no good information on whether the intervention was implemented as planned. In general, you cannot explain in detail why some things went well and others wrong;
- you may lose synergies with the partners and the staff involved;
- you are not able to use valuable and available resources and information to make improvements as you have no feedback collection mechanisms in place;
- the resources and time lost could exceed the limits of your planning;
- you lose the chance to adjust your intervention's content using the feedback from your target group and your staff.

Implementation of the prevention intervention:

- What strategies, components and methods were actually implemented?
- What data sources and instruments were used to measure the intervention's implementation?
- What resources were actually used?

The target group revisited (whether you reached the desired target group):

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

Exposure:

- How did you measure exposure? Which data sources, instruments or indicators did you actually use?
- How long did the prevention intervention actually last and how many prevention activities took place?
- To what extent was the target group actually reached?

Quality of the prevention intervention (e.g. acceptance, degree of identification, involvement, etc.):

- Who provided the information on the quality of the intervention?
- What indicators and instruments did you actually use to evaluate the quality of the intervention?
- What are the results of the quality measurements?

Discussion of the results of process evaluation:

- How do the plans for the intervention compare with its actual implementation and your evaluation? Are there any discrepancies and what are the possible reasons for them?
- What is the impact on any discrepancies on the intervention?
- What are the strengths and weaknesses of the way the intervention has been implemented? Compare these with results from other interventions.

Questions from the EMCDDA guidelines for the evaluation of drug prevention:

Problem 1:

- What variables and indicators will provide useful information on how the intervention was accomplished? What kind of information (qualitative or quantitative) do you want to assess with process evaluation?
- What methods and instruments will be used (interviews, questionnaires, observation instruments)?
- Where, when and how often will the process data be collected (design)?
- Who will provide the information needed for process evaluation?
- How do you plan to analyse the data?

Please refer to the PERK resources page on the EMCDDA website, under <http://www.emcdda.europa.eu/publications/perk/resources/step5>

Theory**Fidelity versus adaptation**

Project leaders in Europe frequently contend that prevention approaches and contents originating elsewhere, e.g. the USA and Canada cannot and should not be used in European projects because they would not fit into our specific cultural realities. This argument has been overused to the extent that the development of prevention has somewhat stagnated, in that approaches that have been shown to be effective in international or US studies are not used in Europe, whereas traditional and unproven approaches (e.g. information provision alone) are still in use.

It is the case that every project leader has to find a compromise between the need to implement a prevention programme with the greatest possible fidelity (carry out all sessions, with the original content) and the need to adapt the content to different cultural situations. It is a balance between methodological correctness (for the evaluation techniques) and practical relevance and acceptance (for improving the evaluation results). However, most of the effective components in Step 2b have proven successful among different ethnic groups and language contexts. Generally, adaptations can be achieved without rejecting the strategy completely.

The European Drug Addiction Prevention (EU-Dap) trial ⁽³⁴⁾ has shown that one structured prevention protocol can be fully implemented and show positive results in nine different Member

⁽³⁴⁾ <http://www.eudap.net>

States and in cultural realities so different as for instance between Greece and Belgium, Poland and Spain.

Drug prevention evaluation studies tend to have a number of methodological problems that make it difficult to identify accurately effective programme components that might be adopted in future interventions. One such methodological problem is implementation error, which occurs when a programme is delivered with poor fidelity. Research-based prevention programmes need to be implemented with the highest fidelity to ensure optimal effectiveness. Process evaluation measures the extent to which the programme was implemented as it was intended and needs to be an essential component of evaluation.

Process evaluation is ideally conducted by independent observers, as Lillehoj et al. (2004) ⁽³⁵⁾ found that, although there was a significant association in most of the rating scores for process evaluation between the provider and independent observers, only the latter's ratings were able to predict youth drug-related outcomes.

When a programme is not implemented as intended, it leads to programme failure. Indeed, as highlighted in the HDA Evidence Briefing, whilst apparently showing some long-term successes, life skills training is effective only when subjects receive at least 60 % of the intended programme, which can often be hard to achieve in high-risk groups.

Regulatory framework

Norms and regulations as supportive factors for implementation

Implementing structured prevention interventions, especially continuous and programme-based prevention, largely depends on environmental factors, for instance existing policies in schools about substance use, norms regarding smoking in school premises and in public spaces, informal norms in the community about substance use, school environment, teacher motivation and school climate. Although difficult to operationalise, these process factors should be taken into consideration and should be documented when implementing an intervention. They can go a long way to explaining the (non)effects of your intervention ⁽³⁶⁾.

⁽³⁵⁾ <http://www.emcdda.europa.eu/publications/perk/resources/step7>

⁽³⁶⁾ <http://www.emcdda.europa.eu/themes/prevention/environmental-strategies>

Indicators

These are useful indicators from the EIB:

- Awareness of community projects: <http://www.emcdda.europa.eu/html.cfm/index3078EN.html>
- Fidelity of implementation in school: <http://www.emcdda.europa.eu/html.cfm/index3117EN.html>
- Involvement of participants: <http://www.emcdda.europa.eu/html.cfm/index3126EN.html>
- Views regarding action on drugs: <http://www.emcdda.europa.eu/html.cfm/index3167EN.html>
- Seminar evaluation (in Greek): <http://www.emcdda.europa.eu/html.cfm/index3190EN.html>
- Social policy (in Greek): <http://www.emcdda.europa.eu/html.cfm/index3192EN.html>
- Perception of aspects of school life: <http://www.emcdda.europa.eu/html.cfm/index3390EN.html>
- Normative influences: <http://www.emcdda.europa.eu/html.cfm/index3296EN.html>
- Normative influences (II): <http://www.emcdda.europa.eu/html.cfm/index3308EN.html>
- Perceived access to drugs: <http://www.emcdda.europa.eu/html.cfm/index3349EN.html>
- European Drug Abuse Prevention Trial (EU-Dap) – Process: <http://www.emcdda.europa.eu/html.cfm/index5109EN.html>

Utopia example

This example is based on the Stay-in-school programme, an EDDRA entry from Ireland. It was, however, modified and anonymised.

Process evaluation

Framework

The framework conditions of the intervention are not consistently supportive. The aid received from ethnic groups associations as well as from some agencies and volunteers (teachers) is much more relevant than backing from the institutions involved. A broader supportive/protective regulatory framework is lacking, as is a clear articulation with the school authorities.

Operational objectives and working plans

1. To provide a needs-based programme of academic activities for the target group. In this way parents can encourage their children to remain in the formal education system, and teachers and the wider community can provide support for parents and children in pursuit of this aim.
2. To provide outdoor pursuit activities such as canoeing and hill walking, designed to increase fitness and to encourage participants to enjoy healthy and other pro-social activities. Such activities also serve to limit the potential for boredom and idleness. They are thought to help ensure that the target group adheres to the social skills training.
3. To involve other cultural groups, families and outside groups in the process and to promote active cooperation between cultural associations, parents and community agencies in pursuit of developing the personal and social skills of the programme participants.

Process indicators for above

1. Attendance figures by participants at programme activities. Interest in and commitment to programme activities by participants. Comments from parents and teachers regarding their perception of how the programme was meeting the needs of the target group.
2. Same indicators as 1 above.
3. Responses and feedback from young people, their parents and teachers within the targeted schools. The level of understanding and awareness about the project within the participating schools and the wider community.

STEP
SIX

6

Step 6

Outcome evaluation

This is the step that is commonly associated with evaluation: determining whether an intervention was successful. It is also the most desirable part of an intervention, although the most difficult to carry out. However, a quick look through the examples in EDDRA will show that it is possible for anyone to carry out outcome evaluation, even with limited means.

First of all, avoid the common mistake made by many project leaders: thinking about defining objectives and outcome indicators too late, when the project has already started or even when it is about to end. The term 'outcome evaluation' indicates the type of data that needs to be collected – information on changes in the target group (intermediate or final); in contrast, the term 'summative evaluation' is derived from when (at which stage of the intervention) the data are processed (typically after the project has ended). Thus, outcome evaluation is ideally prepared for at the planning stage of an intervention. If a pre-post evaluation design is required, it is often necessary to obtain data on several indicators (at baseline) before the intervention starts.

A more in-depth discussion of evaluation is to be found in the COST-A 6 publication on evaluation ⁽³⁷⁾.

During the outcome evaluation, you will analyse indicators on specific variables. Some of them – those that describe the target group's behavioural characteristics – will already have been defined in previous steps (defining objectives and contents, Step 2b). Now is the time to define additional variables/indicators, possibly more closely related to drug use and its intensity. Also take into account the inclusion of additional qualitative data. Be sure that the chosen indicators closely mirror your chosen specific objectives (not the operational objectives, which belong to process evaluation).

If problem drug use or any drug use is not very predominant or is difficult to assess in your target group, it is even more important to define mediating variables in addition to those related to drug use. It is more realistic to formulate objectives not exclusively in terms of drug consumption. Most theories propose large sets of intermediate (or mediating) variables that predict or explain drug use. That is why a good theory base is so important. This will also contribute to a theory-based explanation of how you arrived at your results and help to avoid black box phenomena (outcomes for which you have no explanation).

⁽³⁷⁾ <http://www.emcdda.europa.eu/publications/perk/resources/step6>

Design

Different evaluation designs have different evidence power and different costs (resources, time, preparation, logistics, experts). By now you should have a clear idea (after Step 4) of the scope, setting and content of your intervention and base your decision regarding evaluation design on this.

It is obvious that large and sophisticated evaluation designs are far more difficult to apply for selective prevention than in the well-controlled conditions of classroom-based prevention. In addition, it is not always easy to find, to match and follow a suitable control group if the study setting is outside a school environment.

On the other hand, the effects of interventions are more likely to be significant when the target phenomenon (drug use, social exclusion, problem behaviour) is more frequent or of greater magnitude.

For similar reasons (to increase effect sizes), consider incorporating sensible stratifications (gender, risk groups) within your target group for the evaluation. It is possible that some subgroups will respond much better or worse to certain types of content than others. Leaving these subeffects unrecorded would lead to interesting effects being diluted or lost altogether.

Use of the evaluation

Chart an interest map with which information goes to whom ⁽³⁸⁾.

Be sure that the presentation of the evaluation satisfies the interest and takes into account the understanding of the addressees of this evaluation. Not all stakeholders are interested in the same aspects or indicators or have the same level of understanding of scientific language.

Be aware that an outcome evaluation is also very important for the internal dynamics (staff, stakeholders) of your intervention; it may be seen as a threat to the established *modus operandi* or as a means to improve performance, to question and remodel the usual approaches.

Again, pull together all relevant information that explains your outcomes in theoretical and factual contexts and shows that they are the result of inputs, target group situations, social and other conditions and the evaluation design.

⁽³⁸⁾ <http://www.emcdda.europa.eu/publications/manuals/outreach>

Notes on terminology

Outcome evaluation assesses the result in terms of achievement of objectives set (were the objectives attained?).

Impact evaluation assesses the results beyond the achievement of objectives set (greater range of results which were not explicitly and previously planned).

At the end of this step, you will ideally have achieved the following:

- You will have a data gathering and analysis plan as well as an idea of which evaluation design is most feasible. This is realistic and within the scope of your intervention's resources.
- You will have made a pragmatic decision on the most realistic evaluation to be used (not all interventions have the resources and real-world conditions needed to conduct a randomised controlled trial).
- You will know what 'outcome' means in your intervention, i.e. what works best for whom (of the target) under which conditions.
- You will know from whom the outcome information was gathered, whether the intervention had any effect on target group behaviour and in which target (sub)groups, and whether the intervention actually achieved its purpose.

Logic model key questions: Are all indicators now plausibly and logically connected to the objectives set? Is the whole evaluation design and framework linked to and mirroring the theory base ⁽³⁹⁾ and the concrete components ⁽⁴⁰⁾ of this intervention?

Problems you will face if this phase is not carried out correctly:

- Without an outcome evaluation, your intervention can still be interesting, but it will attract much less attention than a well-thought-out, even simple, outcome evaluation design.
- You will have spent (mostly public) money without showing that you have used it sensibly.
- The staff involved in your project will not know if their efforts have made any real difference and will be less likely to have grown professionally.

⁽³⁹⁾ <http://www.emcdda.europa.eu/publications/perk/resources/step2a/theory>

⁽⁴⁰⁾ <http://www.emcdda.europa.eu/publications/perk/resources/step2a/theory>

- All you can provide are some positive statements about non-quantified and non-attributable improvements after the intervention, which can easily be contested. A pre-post design is much more convincing.
- You continue to act as you always did in the past. You fail to take a critical view that enables you to revamp your evaluation or dynamise your approach. In other words, you lose the opportunity to improve your intervention.
- Your evaluation does not achieve its full potential (e.g. the indicators of a life skills programme should be related to life skills components and not just the information level of the target population).
- You have told the stakeholders (and the EMCDDA's EDDRA manager) that your intervention has an outcome evaluation, but this is not the case because none of the indicators refers to any variable related to the target group.

Questions from the EMCDDA guidelines for the evaluation of drug prevention

Problem 1

1. What are your indicators for outcome and how do you plan to measure them?
2. Do you want to collect information on outcome following a quantitative approach or a qualitative approach? What indicators and instruments do you propose to use for collecting information? The following classification may prove useful:
 - indicators and instruments to measure substance use behaviour among the ultimate target group;
 - indicators and instruments to measure mediating variables related to substance use behaviour among the ultimate target group;
 - indicators and instruments to measure other mediating variables among the ultimate target group;
 - indicators and instruments to measure objectives among the intermediate target group.
3. What do you know about the quality of the instruments (objectivity, reliability, validity)? Do you plan to test the feasibility of the instruments?
4. From whom, when and how often do you plan to collect information on outcome? (Design)
5. How do you plan to analyse the information you gathered? Which statistical methods are adequate to the quality of data and design?

Achieving outcome evaluation

1. What was the design of the outcome evaluation?
2. What instruments were applied?
3. How was data collected, who did it, when and under what circumstances?
4. How was data processed and what statistical analyses were performed?

The sample

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

The outcomes

1. How did the intervention affect the ultimate target group's substance use behaviour?
2. How did the intervention affect mediating variables related to substance use in the ultimate target group?
3. How did the intervention affect other mediating variables in the ultimate target group?
4. How did the intervention affect objectives in the intermediate target group?
5. Are different subgroups affected differently by the intervention? (e.g., men/women, age groups, risk groups, etc.)

Discussion of the results of outcome evaluation

1. Did the intervention achieve the expected outcomes? Discuss any discrepancies between expectations and results addressing possible reasons and their impact on the study.
2. What do you think are your most relevant and significant results? Compare these with results from other studies.
3. How certain are you that the intervention caused the results? Are there any alternative explanations for them?

4. What explanation do you have for negative results?
5. Do you have any suggestions for the future use of similar interventions?
6. Do you have any suggestions for future outcome evaluations of this kind of prevention intervention?

Please refer to the PERK resources page on the EMCDDA website, under <http://www.emcdda.europa.eu/publications/perk/resources/step6>

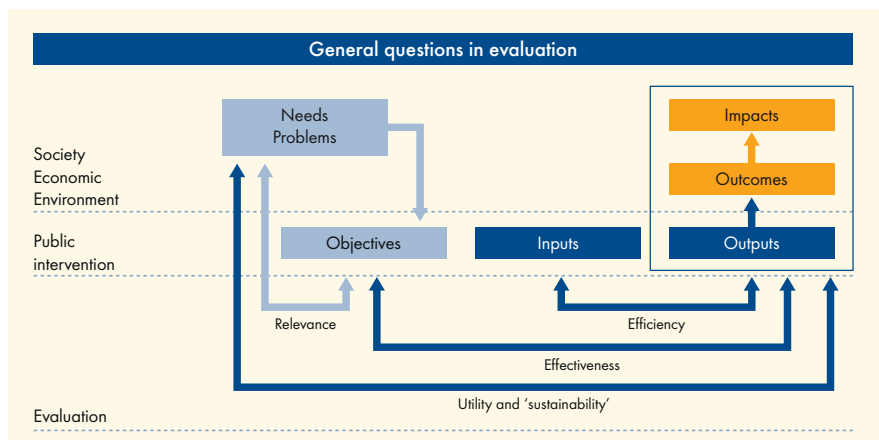
Theory, terminology and options

Efficiency, versus effectiveness, versus efficacy

Effectiveness relates to the extent to which the intended aim of a prevention activity is actually achieved in practice. The greater the likelihood of the aim being achieved, the greater the effectiveness of a prevention activity in question. Effectiveness is the degree to which the established specific objectives have been reached.

Efficiency relates to how the measured effects weigh up to the costs incurred in bringing them about. The lower the costs involved in achieving a specific effect, the more efficient the prevention activity in question will be. Efficiency measures whether the results justify the resources or input given to the intervention compared with another intervention with the same input.

Figure 4: General questions in evaluation



The initial question, to be answered before embarking upon the development of effective prevention work, is whether a specific type of intervention will work in an experimental and entirely controlled situation. The evaluation research needed to establish this is directed at the efficacy of an intervention. If an intervention is efficacious we still do not know if it can be applied effectively or whether it can be implemented in practice.

Process versus formative evaluation

Process evaluation refers to the kind of data collected: data on the intervention itself or process data. Formative evaluation refers to the phase during which the evaluation is carried out: during the course of or while setting up of the intervention. Obviously, the two terms often coincide.

Outcome versus summative evaluation

By analogy with the above, outcome evaluation refers to the kind of data gathered: data from indicators about the behaviour or status of the target group (intermediate or final). Summative evaluation refers to when (at which phase of the intervention) the data are processed: after the intervention. Again, the two terms often coincide.

External versus internal evaluation

To employ an external evaluator adds more objectivity (and more costs) to an intervention's evaluation. In the ideal case, an external evaluator can be a valuable facilitator, enabling your team to improve the intervention and to find the most suitable evaluation data. However, an external evaluator may not fully understand the internal dynamics and structural specificities of your intervention and may fail to take them into consideration in the evaluation.

An internal evaluation is less costly in financial terms, but constitutes a substantial additional workload for your team, which also has to be made familiar with basic evaluation questions. Internal evaluations are often seen as less valuable. However, the EMCDDA is promoting internal evaluations through its Manuals series ⁽⁴¹⁾, EDDRA and PERK, to strengthen the evaluation culture in the EU and to empower project leaders to carry out evaluations if there are not sufficient resources to employ external evaluators.

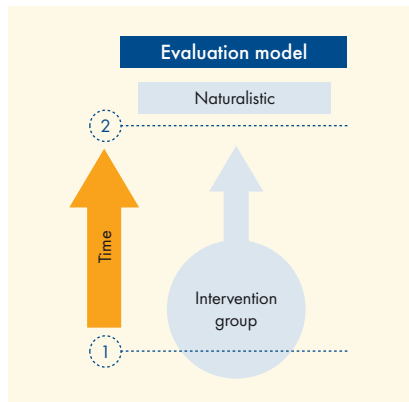
⁽⁴¹⁾ <http://www.emcdda.europa.eu/publications/manuals>

Evaluation design options

Naturalistic

This is a simple pre-post design in which the situation prevailing in the intervention's target group (as measured by indicators) at the starting point (baseline) is compared with the situation after a given period of time that includes the intervention's duration.

Figure 5: Evaluation model – naturalistic

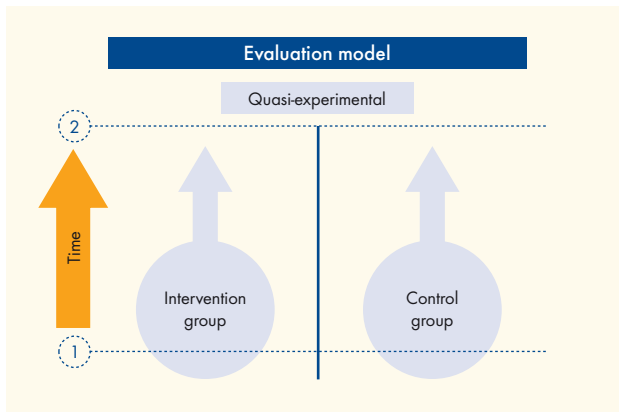


Using this design, it is possible to demonstrate that effects have occurred after a period of time, but it is not possible to prove that the effects were due to the intervention (the changes could have occurred for other reasons).

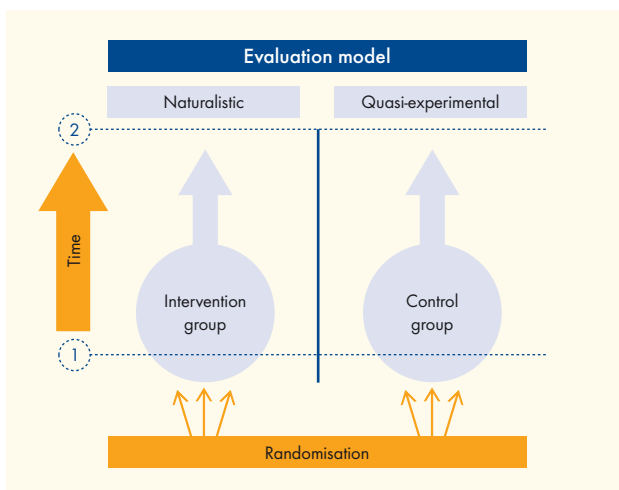
Quasi-experimental

In this case, to the previous design is added a control group that undergoes the same evaluation procedures as before but does not receive the intervention.

You can demonstrate that the effects are most likely due to your intervention, but some critics could still say that there were pre-selection or context effects that made the intervention group being more likely to show results than the control group: e.g. having less risk factors.

Figure 6: Evaluation model – quasi-experimental**Randomised controlled trial**

This design also eliminates possible selection effects and other biases because participants (or bigger units such as school classes) are randomly assigned to either the intervention or the control group.

Figure 7: Evaluation model – randomised

This design requires a great deal of logistical effort and organisation and is extremely difficult to implement in the field of selective prevention, where assignment to the intervention depends expressively on risk factors.

Indicators

These are useful indicators from the EIB:

- Age of beginning: <http://www.emcdda.europa.eu/html.cfm/index3421EN.html>
- Attitudes to drug use: <http://www.emcdda.europa.eu/html.cfm/index3426EN.html>
- Beliefs about consequences: <http://www.emcdda.europa.eu/html.cfm/index3434EN.html>
- Experienced effects of drug use: <http://www.emcdda.europa.eu/html.cfm/index3447EN.html>
- Familiarity and awareness of drugs: <http://www.emcdda.europa.eu/html.cfm/index3452EN.html>
- Intention: <http://www.emcdda.europa.eu/html.cfm/index3457EN.html>
- Risk perception: <http://www.emcdda.europa.eu/html.cfm/index3461EN.html>
- Use of legal and illegal drugs: <http://www.emcdda.europa.eu/html.cfm/index3478EN.html>
- Counselling skills (in Greek): <http://www.emcdda.europa.eu/html.cfm/index3236EN.html>
- Scales for secondary schools (in Greek): <http://www.emcdda.europa.eu/html.cfm/index3365EN.html>
- Scales for primary schools (in Greek): <http://www.emcdda.europa.eu/html.cfm/index3445EN.html>
- EU-Dap: outcome: <http://www.emcdda.europa.eu/html.cfm/index4872EN.html>

These are other possible observational variables you could consider. They were used in several projects included in EDDRA in their outcome evaluation. See for the full report EDDRA analysis on school-based prevention programmes.

Outcome/related variables from existing projects in EDDRA, examples

Drug use specific

- Prevalence rates of alcohol, tobacco, medicines and drug uses before/after
- Intention to change risk behaviours
- Intention to use drugs in the future
- Number of cigarettes smoked per week
- Number of times got drunk in last year
- Effect in the classroom/school (before/after).

Related

- Depressiveness (Kandel scale)
- Rate of suicide attempts
- Perception of well-being in the school and family environments
- Aggressive behaviour, robbery, vandalism last year
- The amount of money spent in bars, discos each week
- Decrease of students' academic stress
- Number of students mentioning personal changes.

Utopia example — synopsis

Please refer to the Powerpoint presentation which can be found on the EMCDDA website under <http://www.emcdda.europa.eu/publications/perk/resources/step6>

Quality in prevention

It is likely that, while looking back at the steps you have taken, and the documents and EDDRA files you have gone through, you will have had some thoughts on what is prevention quality. In other words, you may have made up some 'prevention principles' for yourself. This concluding step of PERK is an invitation to discuss what could be elements of common European prevention principles, analogous to NIDA's 'Red Book' ⁽⁴²⁾: something that could be used in Europe as a commonly agreed prevention quality standard. Your input and suggestions are most welcome here.

For our own working criteria, we classify EDDRA entries according to programme quality criteria:

Level I includes interventions that meet entry criteria into EDDRA: the project has been evaluated and shows the following: a theory base or basic assumptions clearly related to its objectives; clear evaluation indicators; a clear description of evaluation design and must be at least one year old.

Levels II (or promising projects) and III (or top-level projects) are determined via a scoring system. Points are allocated, according to the extent to which evaluation components based on the logic model link to each other (e.g. objectives linked to indicators), the project's linkage to a theoretical background and whether a needs assessment was carried out before implementation. The type of evaluation design, the instruments used, the provision of a project manual and instruments and coordination with other services is also considered.

Note: The terms level I and level II do not necessarily mean that the project had an effective or positive outcome.

In the USA, CSAP has established far-reaching quality criteria ⁽⁴³⁾ and the American Society for Prevention Research (Flay et al., 2005) has similar criteria for creating evidence in prevention programmes. For Europe, given our incipient level of evaluation, more feasible intermediate criteria should be found.

At the moment, only a minority of the interventions contained in EDDRA have a serious experimental design (e.g. include a comparison group or even randomisation). We argue that stricter quality criteria as mentioned above (Flay et al., 2005), such as information on the strength of evidence, quality of the statistical analyses, sample size etc. can only be introduced when this is feasible, i.e. when at least a minimum number of interventions in EDDRA include such elements.

⁽⁴²⁾ <http://www.nida.nih.gov/Prevention/Prevopen.html>

⁽⁴³⁾ <http://nrepp.samhsa.gov/review-quality.asp>

Once Member States' commitment to evaluation has increased in the future, and alongside more advanced methodologies in measurement, design, statistical methods and the respective significance levels are used, a more advanced scoring method will be necessary.

Quality criteria for people carrying out prevention

Slowly but increasingly, discussions are taking place in the EU on establishing quality criteria for people who want to work in prevention (Czech Republic). In the US, these criteria are existing ⁽⁴⁴⁾ but only regarding the professionals' knowledge, not their skills.

Quality criteria for prevention interventions

An EU project on prevention standards ⁽⁴⁵⁾ is compiling, reviewing and analysing drug prevention standards in EU Member States. The results of this work will be to define minimum standards for prevention programmes which will support professionals to deliver evidence-based practice in prevention. This will allow users to bridge the gaps between science, policy and practice.

The training and content aspects of PERK can give input to the development of such criteria. For instance, projects for which funding is sought could be required to go through minimum planning and theory-reading phases, such as the one you have just gone through. In some Member States, this is already the case.

⁽⁴⁴⁾ <http://www.icrcaoda.org/credentialing.asp>

⁽⁴⁵⁾ For updates on progress and documents, see
<http://www.emcdda.europa.eu/themes/best-practice/standards/prevention>

STEP SEVEN



Step 7

Wrap-up and conclusion

Congratulations! You have achieved something exceptional: you have carried out a complete and coherent planning exercise. It will most likely make your intervention more effective (Springer et al., 2004) ⁽⁴⁶⁾, but not necessarily more popular.

At this point you have finished the programme planning and the evaluation planning. You'll have realised that programming and evaluating are going very much hand in hand, so much so that they are sometimes indistinguishable.

Dissemination and/or funding

By addressing all the main points of each step of this module in one short document, you will have a ready-made funding application, or at least a checklist for it. Traditionally, a funding application contains all the parts of this PERK module and shows a logical nexus between them.

The *EMCDDA Manuals 1: Guidelines for the evaluation of drug prevention* ⁽⁴⁷⁾ give some guidance on this point. '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.

1. Who should 'be in the know'?
2. When do they need the information?
3. What information will different people be interested in?
4. Which written communication forms will you use?
5. Which oral communication forms will you use?

You should even consider using popular media in order to disseminate at local level the most presentable results of your intervention. Don't concentrate only on the scientific-academic aspects of your achievements! Think also about newsletters, mailing lists and websites.

⁽⁴⁶⁾ <http://www.emcdda.europa.eu/publications/perk/resources/step7>

⁽⁴⁷⁾ <http://www.emcdda.europa.eu/publications/manuals/prevention>



Bibliography

- Canning, U., Millward, L., Raj, T. and Warm, D.** (2004), 'Drug use prevention among young people: a review of reviews', Health Development Agency, DH (Department of Health).
- Conrad, K.J., Randolph, F.L., Kirby, M.W., Bebout, R.R.** (1999), 'Creating and using logic models: four perspectives', *Alcoholism Treatment Quarterly*, 17(1/2), pp. 17-31.
- Derzon, J.H., Sale, E., Springer, F., Brounstein, P.** (2005), 'Estimating intervention effectiveness: synthetic projection of field evaluation results', *Journal of Primary Prevention*, (26), pp. 321-343.
- Dishion, T. J. and Dodge, K. A.** (2005), 'Peer contagion in interventions for children and adolescents: Moving towards an understanding of the ecology and dynamics of change', *Journal of Abnormal Child Psychology* 33(3), pp. 395-400.
- Flay, B. R., Biglan, A., Boruch, R. F., Castro, F. G., Gottfredson, D. et al.** (2005), 'Standards of evidence: criteria for efficacy, effectiveness and dissemination', *Prevention Science* 6(3), pp. 151-175.
- Hawkins, J., Catalano, R. and Miller, J.** (1992), 'Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood: Implications for substance abuse prevention', *Psychological Bulletin* 112(1), pp. 64-105.
- Kumpfer, K. L., Alvarado, R. and Whiteside, H.O.** (2003), 'Family-based interventions for substance use and misuse prevention', *Substance Use and Misuse* 38(11-13), pp. 1759-1787.
- Lillehoj, C. J., Trudeau, L., Spoth, R. and Wickarama, K.** (2004), 'Internalizing, social competence, and substance initiation: influence of gender moderation and a preventive intervention', *Substance Use and Misuse* 39, pp. 963-991.
- McGovern, T. F.** (1998), 'Vulnerability: reflection on its ethical implications for the protection of participants in SAMHSA programs', *Ethics and Behavior* 8(4), pp. 293-304.
- Newcomb, M.D., Maddahian, E., Bentler, P.M.** (1986), 'Risk factors for drug use among adolescents: concurrent and longitudinal analyses', *American Journal of Public Health*, 76, pp. 525-31.

Repetti, R. L., Taylor, S. E. and Seeman, T. E. (2002),

'Risky families: family social environments and the mental and physical health of offspring', *Psychological Bulletin* 128(2), pp. 330–366.

Scheier, L. (2001), 'Perceived neighborhood risk as a predictor of drug use among urban ethnic minority adolescents: moderating influences of psychosocial functioning', *Journal of Child and Adolescent Substance Abuse* 11(2), pp. 67–105.

Shamblen, S. and Derzon, J. (2009), 'A preliminary study of the population-adjusted effectiveness of substance abuse prevention programming: towards making IOM program types comparable', *The Journal of Primary Prevention* 30(2), pp. 89–107.

Smyth, N. J. and Kost, K. A. (1998), 'Exploring the nature of the relationship between poverty and substance abuse knowns and unknowns', *Journal of Human Behaviour in the Social Environment*, 1(1), pp. 67–82.

Springer, J. F., Sale, E., Hermann, J., Sambrano, S., Kasim, R. and Nistler, M. (2004), 'Characteristics of effective substance abuse prevention programs for high-risk youth', *The Journal of Primary Prevention* 25(2), pp. 171–219.

Wallace, J. and Muroff, J. (2002), 'Preventing substance abuse among African American children and youth: Race differences in risk factor exposure and vulnerability', *Journal of Primary Prevention* (22), pp. 235–261.

Wallace, J. M. (1999), 'The social ecology of addiction: race, risk, and resilience', *Pediatrics* 103(5 Pt 2), pp. 1122–1127.

European Monitoring Centre for Drugs and Drug Addiction

EMCDDA Manuals No 4

Prevention and Evaluation Resources Kit (PERK)

Luxembourg: The Publications Office of the European Union

2010 – 89 pp. – 21 x 21 cm

ISBN: 978-92-9168-415-1

doi: 10.2810/27577

How to obtain EU publications

Our priced publications are available from EU Bookshop (<http://bookshop.europa.eu>), where you can place an order with the sales agent of your choice.

The publications Office has a worldwide network of sales agents. You can obtain their contact details by sending a fax to (352) 29 29-42758

About the EMCDDA

The European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) is one of the European Union's decentralised agencies. Established in 1993 and based in Lisbon, it is the central source of comprehensive information on drugs and drug addiction in Europe.

The EMCDDA collects, analyses and disseminates factual, objective, reliable and comparable information on drugs and drug addiction. In doing so, it provides its audiences with an evidence-based picture of the drug phenomenon at European level.

The Centre's publications are the prime source of information for a wide range of audiences including policy-makers and their advisors; professionals and researchers working in the drugs field; and, more broadly, the media and general public.

The EMCDDA's Manuals are practical handbooks aimed at professionals and grassroots practitioners working in the drugs field.



■ Publications Office

ISBN 978-92-9168-415-1



9 789291 684151