



European Monitoring Centre
for Drugs and Drug Addiction

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European Prevention Curriculum

A handbook for decision-makers, opinion-makers
and policy-makers in science-based prevention
of substance use

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for Drugs and Drug Addiction

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Praça Europa 1, Cais do Sodré, 1249-289 Lisbon, Portugal

Tel. + 351 211210200

info@emcdda.europa.eu | www.emcdda.europa.eu

twitter.com/emcddal | facebook.com/emcdda

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Abbreviations

APSI	Applied Prevention Science International
CNS	central nervous system
COM-B	capability, opportunity, motivation and behaviour
CTC	Communities That Care
DSM-V	Diagnostic and Statistical Manual of Mental Disorders
ECDC	European Centre for Disease Prevention and Control
EDPQS	European Drug Prevention Quality Standards
EMCDDA	European Monitoring Centre for Drugs and Drug Addiction
ESPAD	European School Survey Project on Alcohol and Other Drugs
EUPC	European Prevention Curriculum
GBG	Good Behaviour Game
ICD-II	International Classification of Disease
ID	identification
MDMA	3,4-methylenedioxy-N-methylamphetamine
NAMLE	National Association for Media Literacy Education
PROSPER	Promoting School-Community-University Partnerships to Enhance Resilience
RBS	responsible beverage service
RCT	randomised controlled trial
STAD	Stockholm against drugs
TPB	theory of planned behaviour
UNODC	United Nations Office on Drugs and Crime
UPC	Universal Prevention Curriculum
WHO	World Health Organization

Foreword

I am delighted to present this European Prevention Curriculum handbook, which has been designed as a cornerstone for the training of local and regional decision-, opinion- and policy-makers working with substance use issues.

Recent decades have seen much progress, both in Europe and internationally, in developing responsible and science-based prevention interventions. Nevertheless, many challenges remain and, in many countries, we continue to see prevention practices for which there is little or no evidence of effectiveness being implemented in both school and community settings. In the worst cases, poorly designed prevention interventions may even cause harm. This is why it is vital for us at the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) to support the high-quality education and training of those tasked with choosing and funding appropriate interventions to ensure the health and well-being of our young people and communities.

Here you will find a high-quality introduction to the science-based options that could promote healthier behaviour. However, the aim is also to spark your interest in the sciences that empirically test how prevention can best achieve and sustain healthier behaviour and how such strategies can be scaled up and integrated into routine practice.

Providing support to decision-makers and professionals is a key objective in the EMCDDA's Strategy 2025, and the publication of this handbook represents an important step towards achieving this goal. It builds on the achievements of the European Drug Prevention Quality Standards (EDPQS), published by the EMCDDA in 2011 to improve the quality, effectiveness and reach of prevention responses, and accompanies the EMCDDA's *Health and social responses to drug problems: a European guide*, first published in 2017. The agency is well placed to promote and disseminate both this handbook and the accompanying training, as our network of Reitox national focal points and national experts allows the effective exchange of information and best practices, as well as the promotion of scientific excellence.

I would like to thank our partners in Europe and the US who contributed extensively to this work, in particular the Universal Prevention Curriculum (UPC) team, which was responsible for the international curriculum, and to the UPC-Adapt group, which produced the first version of this European handbook.

I firmly believe that Europe will greatly benefit from a professional prevention workforce that values prevention science, has the support of public institutions and is trained in and knowledgeable about approaches that are empirically tested and likely to yield results — results that contribute to the positive development of our young people and ultimately to a healthier and safer Europe.

Alexis Goosdeel
EMCDDA Director

Use of this handbook

This European Prevention Curriculum handbook has been developed with the primary purpose of providing specific reference material for the European Prevention Curriculum (EUPC) training courses. It also serves to provide a more general introduction to prevention science and, in particular, to science-based interventions for an interested reader.

This handbook is intended to be used only for training purposes by individuals who have completed a required course.

The criteria for the delivery of the EUPC courses can be found at <http://www.emcdda.europa.eu/best-practice/european-prevention-curriculum>, alongside details of current training providers. Contact EUPC@emcdda.europa.eu for related enquiries and feedback.

Preface

The EUPC is a European curriculum developed for use in prevention training for decision- and policy-makers. The primary goal of the EUPC training is to reduce the health, social and economic problems associated with substance use by building international prevention capacity through the expansion of the European professional prevention workforce.

This training curriculum has been developed by a European project entitled UPC-Adapt, which was co-funded by the European Commission. Eleven partners from nine European countries cooperated in the project and adapted the UPC to suit a European audience. The UPC was originally developed by Applied Prevention Science International (APSI) with funding from the US Department of State to the Colombo Plan Drug Advisory Programme. The adaptation of the UPC for the European context was based on the guidelines of the European Prevention Standards Partnership on adaptation and dissemination of quality standards in different contexts (EDPQS Toolkit 4⁽¹⁾). Details of the methodology used and the countries involved in the project are provided in Annex 1.

The European curriculum is shorter and more accessible than the original UPC. It can be delivered in 5 days, unlike the original UPC, which requires up to 9 weeks of training.

The EUPC can be delivered in different ways. There is an online introductory training course, a module for inclusion in prevention training carried out in academic settings and a training module for decision-, opinion- and policy-makers. The structure of the training for the last two modules uses a cascade 'training of trainers' approach whereby trained trainers can further disseminate the training. Trainers are provided with EUPC training materials, including a trainer's guide and PowerPoint presentations. This handbook is intended as a reference material for both trainees and trainers.

⁽¹⁾ <http://prevention-standards.eu/toolkit-4/>

| Who is the EUPC aimed at?

This curriculum has been designed specifically to provide essential prevention knowledge to decision-, opinion- and policy-makers about the most effective evidence-based prevention interventions and approaches. This group, which we refer to as ‘prevention professionals’, includes prevention coordinators, prevention specialists and policy-makers with both general and specialist roles that include responsibility for prevention programmes. In some countries, this group may also include senior practitioners who are influential in decision-making and professional development. They can be located at community, region or country level. They may be heads of non-governmental organisations engaged in delivering prevention, prevention coordinators in a regional administration, civil servants who develop strategy and commission prevention interventions in a municipality, stakeholders or part of community coalitions. The EUPC has a specific focus on this group because of the key role they can play in influencing the development of prevention systems. They can emphasise the importance of prevention work in society and can influence prevention cultures and activities in their regions and among their communities. These professionals may already have some knowledge of prevention and this curriculum will strengthen their expertise.

The dissemination of innovative and science-based approaches in Europe’s publicly funded prevention systems requires changes in decision-making about funding and priorities, including the discontinuation of popular but ineffective approaches. It is also increasingly recognised that providing training to decision-makers and opinion-leaders prior to, or alongside, the training of downstream, front-line professionals is essential. Otherwise, attempts by well-trained front-line staff, such as teachers, health educators and community development workers, to innovate and improve prevention practice may be blocked because science-based prevention is often perceived as counter-intuitive and challenging for established practice.

There have been other developments to address this issue. The United Nations Office on Drugs and Crime (UNODC) has developed training for policy-makers at national level on its International Standards on Drug Use Prevention to prepare the political ground for the delivery of evidence-based prevention approaches. Alongside this, the original UPC series for prevention coordinators also provides a comprehensive training programme for those working below the national level. However, in Europe, decision-, opinion- and policy-makers at regional and local levels are unlikely to be able (or willing) to attend a long and intensive prevention training course. The EUPC training has therefore been developed to deliver the prevention knowledge needed by this group while respecting their time constraints. It provides a concise but informative and practically useful overview on topics including aetiology and epidemiology, school-based prevention, family-based prevention, environmental prevention and evaluation. Delivering training in academic settings will also help to ensure that the next generation of decision-, opinion- and policy-makers are equipped with specific knowledge about the advances in and utility of prevention science.

The underlying assumption of this approach is that providing current and future decision-, opinion- and policy-makers with sufficient knowledge and understanding about the scientific principles of prevention will (1) encourage the implementation of science-based approaches and advocate the discontinuation of ineffective approaches and (2) create an environment where front-line prevention practitioners are encouraged to improve their knowledge and skills.

The EUPC offers an introduction into prevention science. For those professionals who wish to deepen their knowledge of this area, full UPC courses are available.

Introduction

Why is prevention important?

Improvements in health not only have a direct impact on human welfare but are also related to raising national income levels through children's education, worker productivity and reducing the burden on national health and social care systems.

According to the World Health Organization (WHO), non-communicable diseases and conditions now account for 60 % of all deaths worldwide. These deaths are not due to infections, but are due to environmental and socioeconomic conditions, industrial practices and lifestyle decisions, including substance use. The growing recognition of non-communicable diseases related to industry practices and lifestyle choices has prompted countries to establish and implement prevention policies and interventions to address substance use, diet and physical health.

In this context, health promotion strategies are an important way of engaging and empowering individuals and communities to choose healthy behaviours and make changes that reduce the risk of developing such diseases and diminish any other challenges to health.

The importance of introducing evidence-based substance use prevention interventions to parents, schools, businesses and the media and sustaining them is recognised as important. Prevention activities complement health promotion but differ in that they deliver specific actions that focus on modifiable risk and protective factors thought to cause or mitigate ill health.

Substance use prevention aims to stop or delay people from beginning to use psychoactive substances. It can also help those who have started to use to avoid the development of substance use disorders and associated health and social problems. Prevention also has a broader intent: to encourage the healthy and safe development of children and young people, so they can realise their talents and potential. It does this by helping them positively engage with their families, schools, peers, workplace and society.

The European Prevention Curriculum (EUPC)

This curriculum focuses on applying the key findings reported in the International Standards on Drug Use Prevention developed by the UNODC and the EDPQS, developed by EMCDDA and the Prevention Standards Partnership, to 'real-world' contexts in Europe. This is important for the implementation in Europe of the Council conclusions on minimum quality standards^(?) adopted by the Council of the European Union. The focus is on preventing use and problems related to substance use, although the content of this curriculum is generally applicable to other risky behaviours (e.g. violence, antisocial behaviour, gambling, excessive gaming) and may also provide inspiration for preventive approaches to these behaviours. Learning about evidence-based prevention provides valuable, effective tools, which can make a difference when intervening with affected populations in different countries and settings.

This curriculum is primarily designed for decision-, opinion- and policy-makers working in the prevention field in Europe and aims to provide participants with:

^(?) http://www.emcdda.europa.eu/news/2015/eu-minimum-quality-standards_en

- an introduction to the foundations of prevention science;
- an overview of the information needed to inform the selection and implementation of prevention interventions;
- the tools to inform stakeholders about the foundations of evidence-based substance use prevention;
- the tools to coordinate the implementation and evaluation of evidence-based interventions;
- an introduction to family-, school-, workplace-, community-, environment- and media-based prevention principles and practices.

The learning objectives for participants who complete training based on this curriculum are that they will be able to:

- understand the progression of substance use and the role of prevention in response;
- explain the scientific foundation of prevention interventions, including:
 - the who, what, when, where and how of substance use within defined settings;
 - the influences of personal and environmental factors on vulnerability and risk;
 - the role of behavioural and developmental factors, both for targeting interventions and for tailoring messaging and intervention strategies;
 - how to apply empirically based behaviour change theories;
 - the importance of research in understanding how effective interventions 'work';
- describe the background and principles underlying the development of the UNODC International Standards on Drug Use Prevention and the EDPQS;

- describe the importance of implementation fidelity and monitoring the delivery of prevention interventions, and the implementation of prevention policies;
- understand the essential components of an evidence-based intervention and policies in different contexts, such as within the family, at school, in the workplace, in the community, in the environment and in the media.

| Using this handbook

This handbook is intended as a core reference document for both trainees and trainers. It provides further reading with details of the topics covered on the EUPC course, which can be referred to as needed when putting the learning into practice.

The introduction describes the EUPC and provides a general description of the role of the prevention professional in Europe. Ethical issues in prevention work are also briefly reviewed.

Chapter 1 elaborates on the link between epidemiology and aetiological theories and offers an understanding of the role prevention can play in addressing the development of substance use disorders.

Chapter 2 summarises some common theories used by prevention scientists when developing and evaluating effective prevention interventions and policies. Awareness of these theories is important for understanding which elements are necessary or useful in developing and/or adapting prevention interventions in different contexts and settings.

Chapter 3 elaborates on evidence-based prevention interventions and policies and focuses on the UNODC International Standards and the EMCDDA's EDPQS. It also

contrasts evidence-based approaches, which advocate the use of standardised interventions, with tailor-made approaches, which are often based on professional experience and presented needs. This discussion highlights how different approaches are used across Europe.

Chapter 4 is devoted to monitoring and evaluation. It provides an overview of different types of evaluation research that can be used to monitor or evaluate the effects of an intervention or policy.

The ensuing chapters describe the more important features of prevention interventions based on family (Chapter 5), school and workplace (Chapter 6), environment (Chapter 7), media (Chapter 8) and community (Chapter 9). For each topic, there is a discussion of the specific issues or challenges concerning each type of approach (e.g. the difficulty of involving families, resistance against media prevention messages and barriers to implementing nightlife prevention interventions). There is also a focus on evidence-based practices in Europe and a more detailed discussion of interventions.

Several key themes are emphasised throughout the EUPC training and materials. The first is the definition of substance use, which is the use of psychoactive substances that affect feelings, perceptions, thought processes and/or behaviour when consumed. Substances can include tobacco products, alcohol, volatile substances (inhalants) and other substances, such as heroin, cocaine, cannabis and psychoactive prescription medicines used non-medically. Substances include those controlled under the United Nations Conventions and those that are not — for example, new psychoactive substances — although the latter group may be controlled under national

Member State laws. In the EUPC, we deliberately avoid the use of the term ‘substance abuse’, as this is an ambiguous concept and might be viewed as judgemental. Instead, where we wish to refer to substance use that is associated with significant harm, we use the term ‘substance use disorders’. The EUPC also introduces other terms describing patterns of substance use that may not necessarily be associated with significant harm. These topics are discussed in more detail in Chapter 1.

Another theme is the science of prevention, which provides an understanding of the factors associated with the initiation and progression of substance use: how substance use has affected individuals, families, schools, communities and countries, and how it can be addressed with effective strategies, policies and interventions. The UNODC conducted a comprehensive review of prevention activities to identify the most effective approaches (i.e. International Standards on Drug Use Prevention, UNODC, 2013).

Effective interventions, also known as evidence-based prevention interventions, practice and policies, are now available for implementation. The EUPC training is designed to help prevention professionals select the interventions and policies that are most likely to address the target populations’ needs, implement them properly, monitor the quality of the implementation and evaluate the outcomes for participants.

The science of prevention has also identified substance use and similar behavioural issues as developmental. In other words, the factors that lead to engagement in these health risk behaviours begin early and, in general, these behaviours materialise in late childhood and adolescence. This requires an understanding of how to intervene at different ages, starting with infants and very

young children, progressing through the more vulnerable teenage and young adult years and continuing throughout adulthood.

Another theme is that substance use and other risky behaviours are generally the result of interactions between environmental factors and the characteristics of individuals and possibly the result of failed socialisation. For example, young people who are sensation seekers and may not have received positive parenting may react differently to pro-alcohol marketing environments, such as sports sponsorship, from those who do not exhibit this personality trait or who may have had the positive parenting that would guide their sensation seeking to constructive behaviours. Evidence-based prevention interventions are designed to positively intervene in these different environments — e.g. the family, school, the workplace, the community and the environment — to improve interactions between children and their parents, children and their school, employees and the workplace, and residents and their community and environment, to enhance feelings of safety and support. That is why we are producing curricula designed to assist prevention professionals in all of these settings.

Trained prevention professionals need to be aware of information from a wide range of disciplines, including epidemiology, sociology and psychology. This handbook and the accompanying training show how these skills may be applied by prevention professionals in order to:

- assess the nature and extent of substance use in their area, including data collection and analysis;
- identify the populations most at risk and provide an appropriate needs assessment;
- convene appropriate groups of people to address the problem;
- persuade stakeholders of the value of evidence-based programmes and policies;
- support the selection and evaluation of prevention interventions and choose appropriate interventions that address the findings/results from the needs assessment;
- select the interventions that are needed to make a difference;
- implement and monitor the evidence-based efforts and evaluate the outcomes, often in collaboration with a research team;
- foster fidelity and sustainability of interventions, but also keep the feasibility and acceptability of the intervention in mind.

| The role of the prevention professional

Until recently, there have been few information sources available that have pulled together the competencies and tasks needed by the decision-, opinion- and policy-makers in the prevention field to perform their roles alongside the processes involved in selecting and implementing the appropriate prevention interventions and policies tailored to the specific needs of society. European prevention education programmes are diverse and this has led to a poorly defined and inconsistent description of the prevention professional (Gabrhelik et al., 2015). With this curriculum and the EUPC training, we aim to standardise education and training to strengthen the prevention workforce throughout Europe. This is only one of the steps required to further formalise the role and recognition of the prevention professional.

We use the term 'prevention professional' for decision-, opinion- and policy-makers who are responsible for the planning, implementation and monitoring of prevention

interventions and/or policies within a defined geographical area. These individuals may supervise other front-line prevention workers who help to deliver or monitor prevention interventions, and they may also serve as the face and voice of prevention in society.

Currently, several national and international groups have published materials to describe what skills are needed to deliver quality prevention interventions. Among these resources are the UNODC (2013) International Standards on Drug Use Prevention, the EMCDDA (2011) EDPQS and the International Certification and Reciprocity Consortium standards for addiction and prevention professionals (www.internationalcredentialing.org). Much of the content presented in this curriculum came from these sources.

The EDPQS manual includes quality standards for prevention professionals. It lists four areas of competencies related to intervention delivery: (1) general competencies, (2) basic intervention competencies, (3) specific intervention competencies and (4) meta-competencies.

- General competencies relate to people carrying out any prevention activities — e.g. communication skills, intervention management, and social and personal skills.
- Basic intervention competencies include those needed to deliver a prevention intervention — e.g. knowledge of effective substance use prevention approaches and components, interactive instructional strategies and developmental issues.
- Specific intervention competencies include the knowledge and skills specific to a selected intervention — e.g. effective parenting strategies and teaching decision-making skills.
- Meta-competencies cut across the above areas and include those skills required to adapt prevention

interventions effectively to meet the specific needs of the target audience — e.g. cultural sensitivity — but also include community organisation, planning and resource development, and monitoring and evaluation.

| Ethics and substance use prevention

While it is relatively common to discuss the ethics of substance use treatment, harm reduction and research, it is less common to scrutinise the ethics of substance use prevention. Substance use prevention activities may not require physical or clinical intervention, but they represent a form of intervention in people's lives nonetheless. All substance use prevention interventions are underpinned by judgements about what is 'good' or 'bad' for participants (expressed, for example, in the intervention aims). Substance use prevention interventions may also be introduced as a result of society's perceptions of the acceptability of a particular behaviour, which may not be shared by the target population. Moreover, prevention is typically targeted at young people and, in the case of targeted prevention, these young people can be among the most vulnerable of the population and may already be excluded from mainstream society. As all countries have laws that control the use of some substances, ensuring that interventions 'do no harm' by increasing the likelihood of use, for example, is also an important ethical consideration.

Ethical questions therefore arise on a variety of levels, starting from the justification of substance prevention work itself. Professionals should not assume that substance use prevention activities are, by definition, ethical and beneficial for participants. The principles of ethical substance use prevention activities derived from the EDPQS and applied to our curriculum are:

- to adhere to legal requirements;
- to respect participants' rights and autonomy (e.g. as defined in international frameworks on human rights and the rights of children);
- to provide real benefits for participants (i.e. ensuring that the intervention is useful for and accepted by participants);
- to cause no harm to or substantial disadvantages for participants (e.g. iatrogenic effects — inadvertent and unforeseen harmful effects, illness or injury, exclusion, stigma);
- to provide transparent, accurate, neutral and comprehensive information;
- to obtain participants' consent before participation;
- to ensure that participation is voluntary;
- to treat participant data confidentially;
- to treat participation in prevention activities confidentially where necessary;
- to tailor the intervention to participants' needs and preferences;
- to involve participants as partners in the development, implementation and evaluation of the intervention;
- to protect participants' and staff members' health and safety.

Depending on the type of intervention, it may be difficult or not feasible to adhere to all principles of ethical substance use prevention. Obtaining informed consent and ensuring voluntary participation may be a challenge in universal prevention interventions or, for example, in criminal justice interventions, in which participants may be legally required to take part. In relation to the principle of causing no harm, it is worth noting that targeted prevention approaches may also stigmatise participants (EMCDDA, 2009, p. 48).

Different principles may be in conflict with each other. For example, participants may wish to engage in behaviours that cause them harm (e.g. substance use) or, as partners in the intervention development, participants may ask for intervention approaches that have been shown to be potentially ineffective or even harmful (e.g. talking to a former substance user or substance-using peer). It can also be difficult to judge the ethics of the intervention before it has been implemented (e.g. forecasting benefits and harms). Finally, all prevention principles are, to some extent, subject to interpretation (e.g. what constitutes a benefit and to whom?), and changes in drug laws in some countries (e.g. possession of cannabis) may suggest that some types of substance use behaviour are more acceptable in society than others.

There is no clear answer for all the ethical considerations or conflicts that might be encountered in prevention work, but discussing and reflecting on them raises awareness and facilitates an open dialogue on how they might affect prevention work. An ethical approach must be clearly evident at every stage of intervention. Providers must consider what is possible within the intervention (e.g. if written consent is not possible, obtaining verbal consent may be) and pay special attention to any specific issues arising from the intervention (e.g. family safety issues that have to be reported to a responsible authority). They should also take into account that different stakeholders (e.g. staff members, participants, the general public, government) may have different viewpoints on what is 'ethical'. However, participants should always be the focus of attention (EMCDDA, 2011).



PART I

General concepts underpinning effective prevention

CHAPTER 1

Epidemiology — understanding the nature and extent of substance use

CHAPTER 2

Foundations of prevention science and evidence-based prevention interventions

CHAPTER 3

Evidence-based prevention interventions and policies

CHAPTER 4

Monitoring and evaluation

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CHAPTER 1

Epidemiology — understanding the nature and extent of substance use

Effective prevention interventions will be based on a good understanding of the nature and extent of substance use in a community. This is generally the role of drug epidemiology. The WHO defines epidemiology as ‘the study of the distribution and determinants of health-related states or events (including disease), the onset of the health-related state/event/disease (incidence), the existing cases of the health-related state/event/disease (prevalence), and the application of this study to the control of diseases and other health problems’^(?). Understanding the nature and extent of substance use is key to intervening with evidence-based prevention programmes and will help you in your work as prevention professionals.

In relation to prevention efforts, epidemiological data:

- help us to understand how health-related states are distributed among a population and the determinants of the health issue of interest;
- identify new cases of a specific health problem (the ‘incidence’) and the levels of consumption among the population (prevalence);
- involve using a variety of methods for collecting the information including surveillance systems and surveys; and
- include analytic studies to understand the determinants of the health issue.

This chapter will look at the types of data that are available from epidemiological surveys and analytic studies. To clarify some of the causes and contributory factors of substance use, we will look at an aetiology model, which shows how environmental influences interact with individual characteristics to place people at more or less risk of substance use problems and other risky behaviours. In doing so, we will consider the process of socialisation, which helps children acquire the culturally accepted attitudes, norms, beliefs and behaviours that help them do well in life. Although we focus on children and young people here, please keep in mind that prevention is relevant across the life course and that adults are also at risk from environmental influences on behaviour.

Substance use in Europe

Prevention of substance use can focus on one or a number of licit or illicit psychoactive substances, including:

- alcohol;
- tobacco products (including e-nicotine delivery devices);
- other, often illicit, drugs, including cannabis, amphetamines, cannabis and cocaine, or those that

^(?) <http://www.who.int/topics/epidemiology/en/>

are legally produced but are used solely for their psychoactive or non-medical effects (e.g. licensed medicines and new psychoactive substances).

Of concern are the adverse health and social consequences of use and the impact of these substances on society.

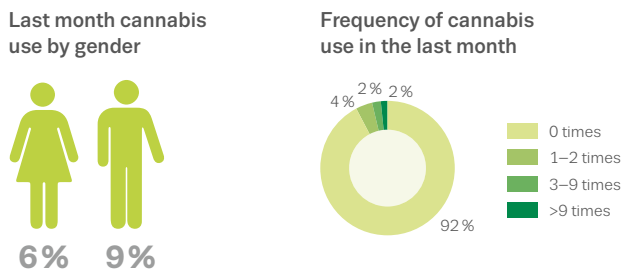
The European School Survey Project on Alcohol and Other Drugs (ESPAD) reported that 83 % of European students had consumed alcohol at least once in their lifetime (Figure 1). Half of the students reported drinking alcohol at least once in the last month. Just under half (47 %) of the students had smoked cigarettes, 23 % of the students reported smoking one or more cigarettes a day and 3 % smoked more than 10 a day (EMCDDA, 2015). Another interesting fact is that 1 in 10 Europeans (not just students) have tried or used e-cigarettes or similar devices (European Commission, 2015).

The profile of substance use in Europe now includes a wider range of substances than in the past. Among

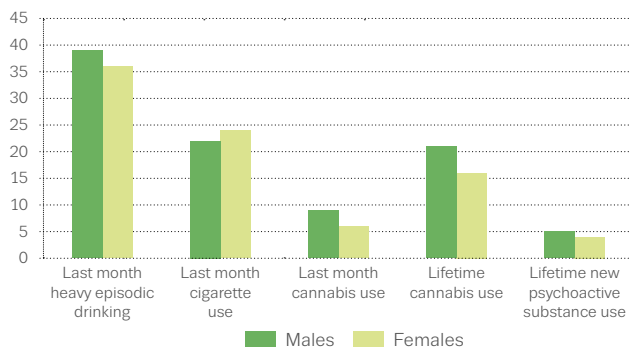
substance users, polydrug consumption is common, and individual patterns of use range from experimental and short-lived to more regular use, heavy use and dependence. Use of all substances is generally higher among males than females and this difference is often accentuated by more intensive or regular patterns of use. The prevalence of cannabis use is about five times that of other illicit substances. While the use of heroin and other opioids remains relatively rare, they continue to be the substances most commonly associated with the more harmful forms of use, including drug injection.

Looking at patterns of use, as reported by national surveys of the general population, can also be helpful. It is estimated that more than 92 million, or just over a quarter of, 15- to 64-year-olds in the European Union have tried illicit substances at least once during their lifetime. Experience of substance use is more frequently reported by males (56 million) than by females (36.3 million). The most commonly tried illicit substance is cannabis (53.5 million males and 34.3 million females), with much lower estimates

FIGURE 1
Prevalence of substance use in European school students



Use of substances (percentages)



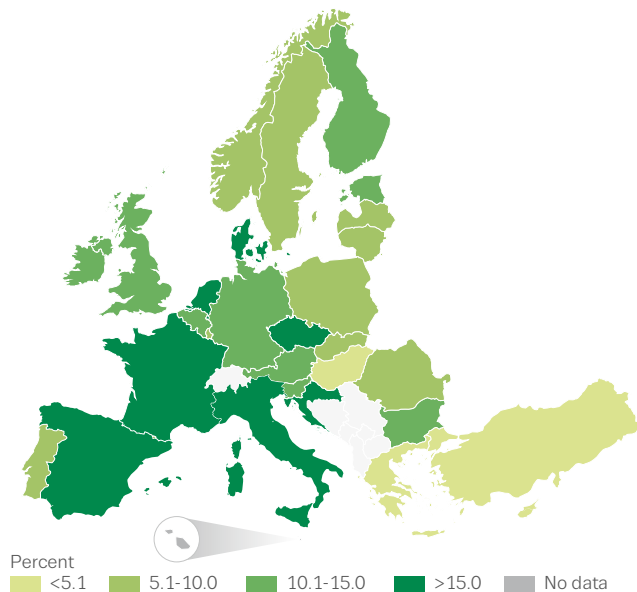
NB: Based on data for the 23 EU Member States and Norway that participated in the 2015 round of ESPAD.

Source: EMCDDA, 2017a

reported for the lifetime use of cocaine (11.8 million males and 5.2 million females), 3,4-methylenedioxy-N-methylamphetamine (MDMA; 9 million males and 4.5 million females) and amphetamines (8 million males and 4 million females). Levels of lifetime cannabis use differ considerably between countries, ranging from around 41 % of adults in France to less than 5 % in Malta (Figure 2). Last year substance use provides a measure of recent substance use and is largely concentrated among young adults. An estimated 18.9 million young adults (aged 15-34) in Europe used substances in the last year, with twice as many males as females.

FIGURE 2

Last year prevalence of cannabis use among young adults (aged 15-34): most recent data

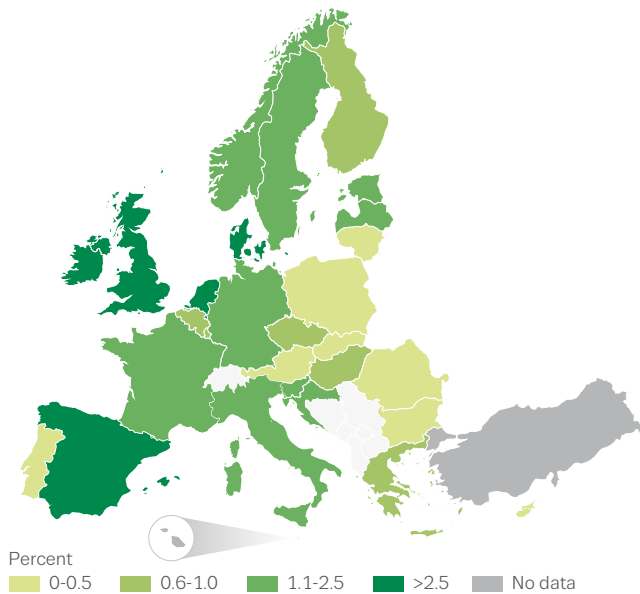


Source: EMCDDA, 2018a

Across all age groups, cannabis is the illicit substance most likely to be used. The substance is generally smoked and, in Europe, is commonly mixed with tobacco. Patterns of cannabis use can range from occasional to regular and dependent. It is estimated that 87.6 million European adults aged 15-64, or 26.3 % of this age group, have used cannabis at least once in their lives. Of these, an estimated 17.2 million young Europeans aged 15-34, or 14.1 % of this age group, used cannabis in the last year, with 9.8 million of these aged 15-24 (17.4 % of the 15-34 age group). Last year prevalence rates among 15- to 34-year-olds range from 3.5 % in Hungary to 21.5 % in France. Among young people using cannabis in the last year, the ratio of males to females is two to one.

Cocaine is the most commonly used illicit stimulant substance in Europe and its use is more prevalent in southern and western countries (Figure 3). Among regular consumers, a broad distinction can be made between more socially integrated users, who often sniff powder cocaine (cocaine hydrochloride), and marginalised users, who inject cocaine or smoke crack (cocaine base), sometimes alongside the use of opioids. It is estimated that 17 million European adults aged 15-64, or 5.1 % of this age group, have experimented with cocaine at some time in their lives. Among these are about 2.3 million young adults aged 15-34 (1.9 % of this age group) who have used the substance in the last year (EMCDDA, 2018a).

FIGURE 3
Last year prevalence of cocaine use among young adults
(aged 15-34): most recent data



Source: EMCDDA, 2018a

All substances may be harmful because of short- and long-term toxic effects, but, as there is no quality control in the manufacture and sale of illicit substances, there are additional risks of use. In recent years, there has been an increase in the availability of new and/or novel, potent, adulterated and contaminated new psychoactive substances and illicit drugs, which has increased the risk of experiencing harmful outcomes. Drug contaminants may also be introduced as by-products of poor-quality manufacturing, supply and storage processes, and may include microorganisms and other biological and infectious agents. Adulterants may be deliberately added to drug preparations to alter the effects, to increase product sale

weight or to disguise a decrease in potency (e.g. the addition of local anaesthetics to mimic the numbing effects of cocaine). Non-psychoactive (but potentially toxic) chemicals may also be used to bulk out the drug to allow reductions in the amount of active ingredient in order to increase profitability to sellers. However, other harmful drug effects may be unpredictable and arise as a result of underlying individual biological differences or be affected by coexisting health conditions, socioeconomic factors or drug-related behaviours, such as where the drug is used, the route of administration and administration hygiene (e.g. the sharing of equipment and other injection risks).

The EMCDDA publishes annual reports on the trends and development of substance use in Europe. It also publishes Country Drug Reports, which provide the most recent data on substance use in the EU Member States, Turkey and Norway. All publications are available at www.emcdda.europa.eu/publications.

Pharmacology and physiology

For a prevention worker, understanding the science that underlies substance use and harmful outcomes (including use disorders) should help clarify the importance of addressing substance use and substance use problems early through evidence-based prevention interventions. This information will also help policy-makers and decision-makers understand that multiple, comprehensive prevention interventions targeted at families, young people and local workplace settings are essential in addressing substance use and its consequences. Furthermore, this understanding reinforces the need to define prevention programming within a developmental framework with interventions targeted at all age groups.

| The use of substances

In general, when we talk about a substance in this curriculum, we are talking about a chemical that alters biological structure or functioning when administered and absorbed. Our focus is on psychoactive substances, particularly those that affect feelings, perceptions, thought processes and/or behaviour. Psychoactive substances achieve these effects because they alter the functioning of the nervous system. Those who study how substances affect behaviour and psychological processes are called psychopharmacologists. The study of the effect of substances on living systems is pharmacology.

Different substances take different lengths of time to break down (metabolise) and be eliminated from the body. The amount of time it takes to eliminate half of the original dose of a substance from the body is called the half-life. The half-life of a substance affects how long its effects last and how long it takes to fully clear the body. When a person stops using a substance, it can be important to know the half-life of the substance to know how long it will take the person to fully clear the substance from their body.

Factors other than the half-life of a substance also affect how long it takes to metabolise a substance. A person's age, their sex, their use of other substances, the length of time for which a person has regularly used a substance and the amount that is regularly used affect how the body absorbs psychoactive substances, metabolises them and eliminates them. If a person uses a substance often and heavily, it may be metabolised and eliminated more quickly. Young children and older adults metabolise and eliminate substances more slowly than young and middle-aged adults. In general, females are more sensitive to drug effects than males because of differences in factors such as body size, body fat and liver function.

Attempts have been made to classify psychoactive substances on the basis of their pharmacology and psychopharmacological effects. There is no single, universally accepted classification system, but drugs can be broadly grouped as follows:

- Central nervous system (CNS) stimulants — e.g. amphetamines, cocaine, modafinil, nicotine, caffeine — increase the activity of the CNS. They tend to increase heart rate and breathing and offer a sense of excited euphoria, and some of them increase feelings of sociability.
- Empathogens (sometimes known as entactogens) — e.g. MDMA, mephedrone, 6-APB — have stimulant effects, but also produce experiences of emotional connectedness and empathy with others. Depending on the drug and dose taken, they may also have psychedelic effects.
- Psychedelics — e.g. lysergic acid diethylamide (LSD), dimethyltryptamine (DMT), psilocybin, mescaline — cause marked changes in thought, sensory perceptions and states of consciousness.
- Dissociatives — e.g. ketamine, nitrous oxide, dextromethorphan (DXM), phencyclidine (PCP) — cause changes in sensory perceptions and produce feelings of detachment (dissociation) from the environment, others and oneself.
- Cannabinoids — e.g. cannabis — have desired effects including a state of relaxation and improvements in mood, with mild sensory changes.
- CNS depressants — e.g. alcohol, benzodiazepines, gamma-hydroxybutyrate (GHB) — depress or reduce arousal or stimulate the nervous system to induce sleep and relaxation and to reduce anxiety. CNS depressants, such as alcohol, lead to improvements in mood and sociability.
- Opioids — e.g. heroin, morphine, tramadol — cause relaxation and sometimes improvements in mood. They

are used clinically as analgesics (to relieve pain) and this is sometimes the basis of non-medical use as well.

With the increasing range of new psychoactive substances being used, lists such as the one above will never be complete, and prevention professionals may struggle to keep their knowledge of the different substances up to date. However, there are a range of tools available online, such as the Drugs Wheel ⁽⁴⁾, that provide information on the range of drugs in different classes.

It is important to keep in mind that a substance being legal does not mean it is safer than an illegal substance. The legality of a substance is generally more the result of traditions, culture and political or religious factors than whether a substance is more or less harmful than another. Alcohol and tobacco are good examples of this. It has been projected that tobacco use will cause more than 8 million global deaths annually by 2030. According to the WHO ⁽⁵⁾, in 2018 about 3 million deaths, or 5.3 % of all global deaths, were attributable to alcohol consumption.

How a substance is taken is called the method or route of administration. Psychoactive substances can enter the body through different routes of administration, including (but not limited to) oral/swallowing; snorting/sniffing (inhaling through the nose, sometimes called insufflation); smoking; inhaling fumes or vapour; intramuscular injection (injecting into a muscle); subcutaneous injection (injecting the substance just beneath the skin); intravenous injection (injecting the substance into a vein); topical (applying the substance to the top layer of the skin); and sublingual (dissolving the substance under the tongue and absorbing it through the mouth tissue). The route of administration matters because it affects how quickly a substance reaches the brain; the faster

the substance hits the brain, the greater and more reinforcing its effect. Intravenous administration is faster than inhalation or smoking, which, in turn, are faster than oral administration.

The speed of transition from first substance use to problems such as substance use disorders (discussed in the next section of this chapter) is complex and determined by factors such as the age of initiation, the substance used and experiences of use, exposure to preventive interventions and environments, and the influence of risk and protective factors, such as those discussed later in this chapter.

Prevention researchers have described this transition in different ways through the development of substance use transition models. While no single model is applicable to all substance users, they do help us think about how substance use might progress from infrequent and experimental use to more regular and disordered use. The model developed by Piazza and Deroche-Gamonet (2013) is presented here as a general example. The model is applicable to many substance use behavioural patterns, although it focuses on social and recreational interests around substance use. For other people, the initial reasons for substance use may not be recreational; some people may, for example, be self-medicating an untreated psychiatric or physical disorder or using substances not in accordance with a doctor's prescription. Piazza and Deroche-Gamonet describe how transition to substance use disorders can proceed through three phases. The three phases are consecutive but independent — entering one phase is necessary but not sufficient to progress to the next phase, because specific individual vulnerabilities are needed.

1. In recreational and sporadic use, intake is moderate and sporadic, and it is still one, among many, recreational activities of the individual.
2. In intensified, sustained, escalated use, substance use intensifies, becomes more sustained and frequent,

⁽⁴⁾ <http://www.thedrugswheel.com/>

⁽⁵⁾ <https://www.who.int/news-room/fact-sheets/detail/alcohol>

TABLE 1

Comparison of ICD-11 and DSM-V criteria for substance use disorders

Criterion	ICD-11	DSM-V
Substances used in larger amounts or for longer than intended	✓	✓
Persistent desire or unsuccessful efforts to reduce substance use		✓
Craving or strong desire to use substances		✓
Great deal of time spent using substance and recovering from substance use	✓	✓
Tolerance to substance effects	✓	✓
Withdrawal symptoms		✓
Social, occupational and other activities affected by substance use		✓
Continued use despite recurrent social problems caused by substance use		✓
Continued use despite physical or psychological problems related to substance use		✓
Continued use of substances leading to failure to fulfil major role obligations	✓	✓
Recurrent substance use despite legal problems	✓	
Recurrent substance use in hazardous situations	✓	✓
Family hurt by person's use of substances	✓	

and becomes the principal recreational activity of the individual. Although social and personal functioning starts to decrease, behaviour is still largely organised and the individual can fulfil most of their roles and responsibilities.

3. Loss of control of drug use and the development of a substance use disorder means that substance-related activities are now the principal focus of the individual.

Substance use disorders

Most people who use psychoactive substances do so without experiencing any serious harm related to use. However, some substance users experience problems related to use that significantly impair their health, social function and well-being. These are termed *substance use disorders*. This phrase

has replaced out-of-date terms such as 'abuse' or 'addiction', which were hard to define and have fallen out of favour with shifting societal attitudes ⁽⁶⁾. The measurement and diagnosis of these substance use disorders have changed over time, but currently two major classification systems are used. These are published by the WHO (the International Classification of Disease; ICD-11) and the American Psychiatric Association (the *Diagnostic and Statistical Manual of Mental Disorders*; DSM-V). There are some differences between the two systems, but they contain common criteria, such as using substances in larger amounts or for longer than intended, prioritisation of substance use over other activities and social roles, and continued use of the substance despite evidence that it is causing the person harm (e.g. physical and psychological harm). Table 1 shows the types of criteria included in the two classification systems.

⁽⁶⁾ We acknowledge and respect that some people find value in using the term 'addiction' when self-labelling, but we discourage its use by prevention professionals.

As shown in Table 1, the DSM-V includes a total of 11 criteria, two of which a person must meet to be classified as having a mild substance use disorder; meeting further criteria means that the use disorder is classified as being moderate or severe.

The ICD-11 refers to substance use disorders but distinguishes between harmful substance use (a pattern of substance use that causes damage to physical or mental health, including that of family members) and dependence, which comprises four main criteria (craving and difficulties in controlling use; persistent use despite adverse consequences; tolerance; and withdrawal). Individuals must meet at least two criteria for a classification of dependence. To meet the criteria for harmful use, at least one item of harm must be endorsed and the criteria for dependence should not have been met.

Prevention interventions play a significant role in reducing the chances that progression to problem substance use will occur. Although these two classification systems are useful clinical tools, it is important to remember that people can still experience problems related to their substance use without meeting these clinical thresholds. Most target groups for prevention are not at immediate risk from substance use disorders, but they are at risk from other harms, such as health and psychological harms, getting in trouble with the police, dropping out of school or risky behaviour associated with substance use (e.g. sexual risk taking, getting into a car with an intoxicated driver). These may be just as serious and important and can potentially be experienced by anyone who uses substances.

Health issues due to substance use

According to the WHO's Global Burden of Disease Study, alcohol use disorders contribute to around 10 % of the healthy years of life lost each year because of diseases and risk, in both young people and adults (Degenhardt et al., 2013).

These disorders comprise the conditions directly related to alcohol use (see 'Substance use disorders' above) as well as disorders that have been found to be linked to alcohol use, such as foetal alcohol syndrome.

However, decades of research have shown that there are other diseases and injuries that have been found to be linked to alcohol consumption for either the consumer or others. These include neuropsychiatric disorders; gastrointestinal diseases; cancers; heavy drinking; disorders linked to suicide and violence; unintentional injury, such as road traffic accidents, falls, drowning and poisoning; cardiovascular diseases; foetal alcohol syndrome and pre-term birth; and diabetes mellitus. Drinking alcohol regularly has been strongly associated with seven different types of cancer and it has been estimated that, in 2016, 6.2 % of all cancer deaths in Europe were attributable to alcohol use (WHO, 2018).

The relationship between smoking and ill health is well documented. Tobacco kills up to half of its users, more than 7 million people each year, and it is estimated that, by 2030, 8 million deaths globally will occur each year as a result of smoking (?). Smoking has been implicated in cardiovascular diseases, lung diseases, difficulties with conceiving and pre-term delivery, low birth weight and low bone density. Not only are smokers at a heightened risk of health problems, but studies have found that those

(?) <https://www.who.int/news-room/fact-sheets/detail/tobacco>

exposed to second-hand smoke from the use of tobacco products experience serious health issues, particularly family members and work colleagues of smokers.

The use of psychoactive substances is a recognised contributor to the global burden of disease. Estimates from the WHO suggest that, globally, substance use disorders are the sixth leading cause of healthy years of life lost in people aged under 25. Chronic and acute health problems are associated with the use of substances, and these are compounded by various factors, including the properties of the substances, the route of administration, individual vulnerability and the social context in which substances are consumed. Chronic problems include dependence and substance-related infectious diseases, and there is a range of acute harms, with substance overdose being the best documented of these. Although relatively rare, the use of opioids still accounts for a large proportion of the morbidity and mortality associated with substance use. Risks are elevated through injecting substances. In comparison, although the health problems associated with cannabis use are clearly lower, the high prevalence of use of this substance may have implications for public health. Variation in the content and purity of substances now available to users increases potential harms and creates a challenging environment for substance-related responses (EMCDDA, 2017b).

Substance use also places a burden on society. If the health, safety and well-being of young people are not addressed, adverse substance use outcomes can lead to lower workforce productivity and are costly to health, social and criminal justice services. In many instances, the financial costs of providing these services are greater to society than the costs of delivering effective prevention and treatment programmes.

| The aetiology model

Aetiology is a medical term that describes the causes or origins of diseases or other disorders and the factors that bring them about or predispose people to them. Aetiology is important to prevention, as it helps identify those factors or mechanisms associated with the onset of a health condition or social problem, such as a substance use problem. Prevention programmes can then be designed or selected to address these factors.

The concept of risk and protective factors for substance use has been universally embraced and, for the last two decades, has informed the field of prevention interventions. Protective factors, or those that reduce the vulnerability of individuals, are characteristics that offset or buffer the impact of existing risk factors.

In general, risk factors are defined as measures of behaviour or psychosocial functioning (including attitudes, beliefs and personality) that are found to be associated with an increased risk of using substances. These include:

- contextual factors — for example laws and norms favourable to substance use behaviours, including those related to marketing and availability, economic deprivation and neighbourhood disorganisation;
- individual and interpersonal factors — for example genetic predisposition and other physiological measures, family history of substance use and attitudes towards substance use, poor/inconsistent family management, family conflict and low family bonding (Hawkins et al., 1992).

While contextual factors (e.g. laws and norms, availability, peers) play a significant role in the initiation of substance

use, individual and interpersonal factors, particularly physiological, neurological and genetic factors, have been found to have an important influence on the progression to more regular patterns of substance use, harmful substance use and substance use disorders (Glantz and Pickens, 1992).

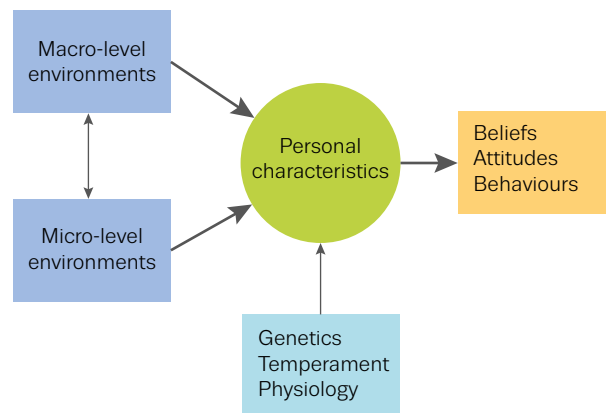
However, more recent research has come to view risk and protective factors as indicators of other developmental mechanisms that might increase individual vulnerability to substance use, and it is the interface of individual vulnerability with the micro-level (e.g. social and interpersonal interactions) and macro-level environments (e.g. community, institutional and societal factors) that either places a person at risk or protects them from engagement in risky behaviours such as substance use.

Substance use usually begins in late childhood and adolescence. It is a process that includes many different pathways and does not have one simple cause, but it is mostly driven by decisions influenced by internal biological factors and external, environmental and social factors. Developmental theory is an important framework for understanding these processes. Each developmental stage, from infancy through to adulthood, is associated with the growth of intellectual ability, language skills and cognitive, emotional and psychological functioning, and the continued acquisition of social competency skills and personal impulse control (see Annex 2). Any major disruption to this growth can lead to the development of disorders, such as substance use problems, through interaction with other events or environmental factors.

Studies of the origins of risky behaviours such as substance use show that initiating substance use involves an interaction between individual personal characteristics, such as genetic predisposition, temperament and

FIGURE 4

The aetiology model



Source: Based on UNODC, 2013

personality type, differences in how one actually sees, hears and 'feels' the surrounding environment or persons, and experiences outside the individual. The aetiology model (Figure 4) shows these interactions, which are bi-directional at both the micro and macro levels. This model will underlie the discussions about the causes of substance use in each chapter.

As children develop, their environments expand from micro-level involvement, such as from family members, peers and school, to macro-level environments, including both physical and social environments (i.e. the neighbourhood and society and their physical condition, and the attitudes, beliefs and behaviours of their residents).

Over the course of an individual's lifespan, they experience major life events from birth, including beginning school, encountering puberty, making vocational choices,

entering into a partnership and parenting. At each stage, they are guided or influenced by their families, school, religious bonds, sport clubs, youth organisations and peers, which form their micro-level environments, and the society in which they live, which forms their macro-level environment. When important developmental goals are not met, children become vulnerable to falling behind in subsequent developmental goals and are more likely to engage in unsafe and unhealthy behaviours. The achievement of these developmental goals is influenced by individuals' interactions with their micro- and macro-level environments as they grow up, so prevention interventions focus on addressing the vulnerabilities within these micro- and macro-level environments.

The socialisation of children is one of the most important functions of the family, school and the environment, and socialisation agents, such as teachers or (grand)parents, play an important role. Children need to learn the acceptable attitudes, morals and behaviours of their culture to become risk-averse adults.

These micro- and macro-level environmental factors can serve to either protect individuals from risk or increase risk for vulnerable individuals. The relationship works both ways. For example, a child develops a difficult temperament shortly after birth and has difficulty adjusting to the world around them. The child may be considered 'fussy' and demand attention. If the parents have difficulties coping with this child, there is a possibility that the child might have problems dealing with new environments as they grow older, such as in school, with their peers and in the workplace. However, if the parents develop the skills to appropriately and supportively manage this child, the child's potential for easier adjustment in such environments is enhanced.

The same is true for the impact of the interaction between the macro-level environment and the individual. Take the example of another child who is close to their parents but who lives in a poor neighbourhood with lots of abandoned houses. Unemployment is high, there is a high density of shops selling alcohol and tobacco and, during the day, young men and women hang out on the street, sometimes using substances. The child must go past these young people on the way to school. Despite their loving and supportive parents, the child may eventually join the group and be exposed to opportunities to use substances.

Another interaction that can affect vulnerable individuals is the impact that the macro-level environment can have on the micro-level environment. Studies have suggested that this can lead to either an increase or a decrease in the drug use of populations and individuals. Research that has been undertaken in Europe suggests that, after the economic crisis of 2008, for every 1 % increase in regional unemployment rates there was a 0.7 % increase in youth cannabis use (Ayllón and Ferreira-Batista, 2018). At an individual level, people may have less disposable income such as wages or pocket money to spend on substances, but when unemployment rates go up as a result of an economic crisis, people may resort to self-medication because of the increased probability of being unemployed or the lack of opportunities found in the local job market. This causes an increase in substance use. If jobs are scarce and wages are lower, spending time using drugs instead of working or looking for work has less of a socially excluding impact than if there were lots of jobs available and wages were higher. Furthermore, sometimes one or both parents have to work out of the area or abroad and are not regularly available for their children. If not supervised by a responsible and caring adult, these children may find solace in groups using substances.

No single factor alone is sufficient to cause substance use or the development of riskier patterns of use. There is probably some critical combination of the number and type of influences and experiences that operate to cause an individual to cross some liability threshold, to initiate substance use and progress to a substance use disorder. The threshold can be reached by any number of combinations of these factors, which may be unique for each individual.

The socialisation process is used in evidence-based prevention. Specific types of prevention interventions target individuals directly or through their environments. This means that the interventions work to directly change an individual's beliefs, attitudes and behaviours (e.g. school interventions that teach peer resistance skills), help socialisation agents improve their skills (e.g. improving parenting or teaching skills) or modify the individual's setting to make it more difficult to engage in risky behaviours (e.g. requesting proof of age to prevent underage young people from accessing alcohol). The socialisation process becomes the positive influence that outweighs negative exposures and serves as the primary force in evidence-based prevention. Research has shown that helping young people make appropriate decisions for their health and well-being in regard to substance use can be achieved and remains the goal of prevention.

Such prevention interventions are also designed to help prevention workers become socialisation agents themselves, by directly engaging with the target groups in the socialisation process or by training key socialisation agents, such as parents and teachers, to improve their socialisation skills (e.g. parenting, classroom management).

Multi-level developmental framework

This multi-level developmental framework highlights how a person's risk vulnerability or the risks they are exposed to may result from the interaction between personal and environmental characteristics. More specifically, it defines the risk factors that are central to the framework.

Earlier in this chapter, we discussed the vulnerability of young people with strong negative influences. These negative influences are risk factors, namely the individual (psychological), environmental or social characteristics that increase the likelihood of negative outcomes. Risk factors, including substance use, can vary across age groups in terms of their nature and influence. Risk factors can have cumulative effects, but are also affected by macro- and micro-level influences, personal characteristics and family-, school-, workplace- and community-level environments.

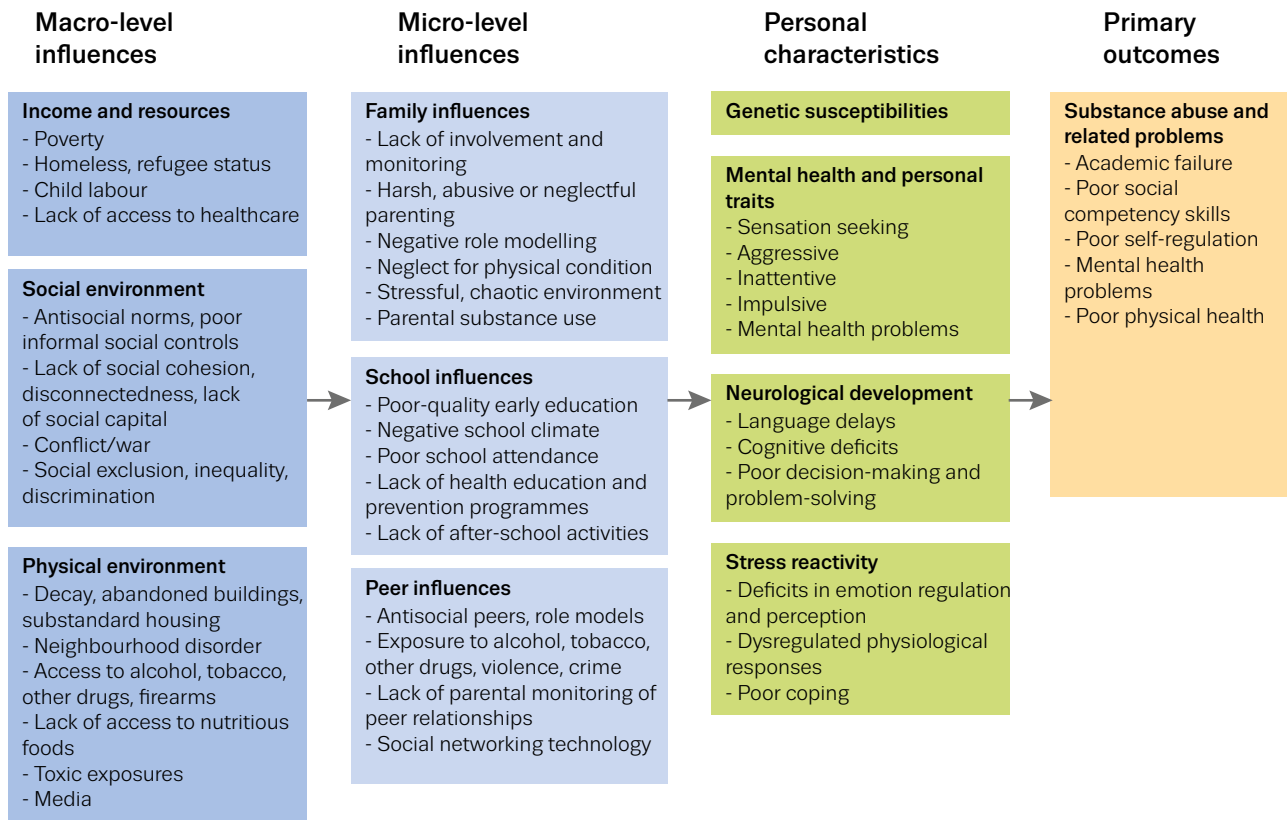
Effective prevention interventions address risk factors before the onset of risky behaviour. Figure 5 gives examples of risk factors originating in each of these environments, which can be addressed by preventive interventions.

Protective factors, or those that reduce the vulnerability of individuals, are characteristics that offset or buffer the impact of existing risk factors. In other words, protective factors reduce the vulnerability of young people. Examples of protective factors originating at each level are as follows:

- for individuals, having a balanced temperament and self-regulation;
- for families, bonding with caregivers;

FIGURE 5

Risk factors that can be addressed by prevention interventions



Source: Based on UNODC, 2013

- for schools, prosocial skills, development (e.g. decision-making and problem-solving) and educational engagement;
- for communities, quality of education and other school-related factors and positive community norms.

Evidence-based interventions implemented at one developmental stage can influence later developmental

stages in ways that lead to even longer-term effects. This 'cascading effect' helps bring positive outcomes in later adulthood. In other words, a positive outcome can cascade into other areas of life and can gain momentum to provide additional protection against future risk factors. For example, effects from one of the evidence-based interventions in the UNODC standards document, the Good Behaviour Game (GBG), revealed that not only did the intervention result in

reduced substance use, but it also resulted in a related long-term reduction in lifetime mental health problems.

Evidence-based interventions targeted to prevent substance use in young people have been shown to not only decrease the likelihood of substance use in later life, but also have positive effects on non-targeted outcomes. Research on the 'Strengthening Families Program: For Parents and Youth 10-14', for example, also showed (through implementations in the US) evidence of non-targeted outcomes, including reductions in criminal activity, depression, anxiety and health-risking sexual behaviours and improved academic outcomes. 'Crossover effects', such as academic achievement and reduction in conduct problems, serve to enhance larger public health and economic benefits for the community.

To summarise, epidemiological and aetiological studies help prevention professionals to consider and decide:

- where to target prevention interventions, which may even be required within a specific geographical area;
- what substances to target — for some populations, alcohol and tobacco products may be more of a problem than cannabis;
- to whom the interventions should be targeted and which groups seem to be most at risk or more susceptible, such as the children of substance users;
- when to target the interventions — if the age at onset is 14 years old, the interventions should begin earlier, at say age 12;
- what the mediators of the prevention intervention should be — what are the objectives and messages that should be of concern, for example addressing the attitudes towards use, normative beliefs about the prevalence of use and perceptions of the risks associated with use (see Chapter 3).

The need for comprehensive, interdisciplinary support services through the developmental phases

For prevention professionals, it is important to understand that substance use may start out as a relatively low-risk behaviour, but continued engagement can lead to an increase in the amount and frequency of substance use, as well as an increase in the likelihood of experiencing associated harms. Sometimes, as discussed earlier, substance use can dominate the lives of users, causing them to neglect other social activities and responsibilities, and then social and health problems may emerge. Reference to risk and protective factors within the aetiology model (1) allows us to better understand the pathways that people might take towards developing substance-related problems (Figure 6) and (2) helps the development and targeting of appropriate prevention (and treatment and harm-reduction) interventions.

As shown in Figure 6, (macro- and micro-)environmental factors, and to a lesser degree personal characteristics, are important determinants of whether or not someone will initiate substance use. These include both those factors that might immediately precede a substance use episode, such as availability of substances or an offer to use substances, and possibly early vulnerability and risk and protective factors that affect healthy development and increase the likelihood that substance use will occur.

As suggested by prevalence surveys, most people who initiate substance use do not continue their use and exposure will be limited to a small number of infrequent substance use episodes. A range of additional factors differentiates these people from those who continue to use, including a psychopharmacological response to

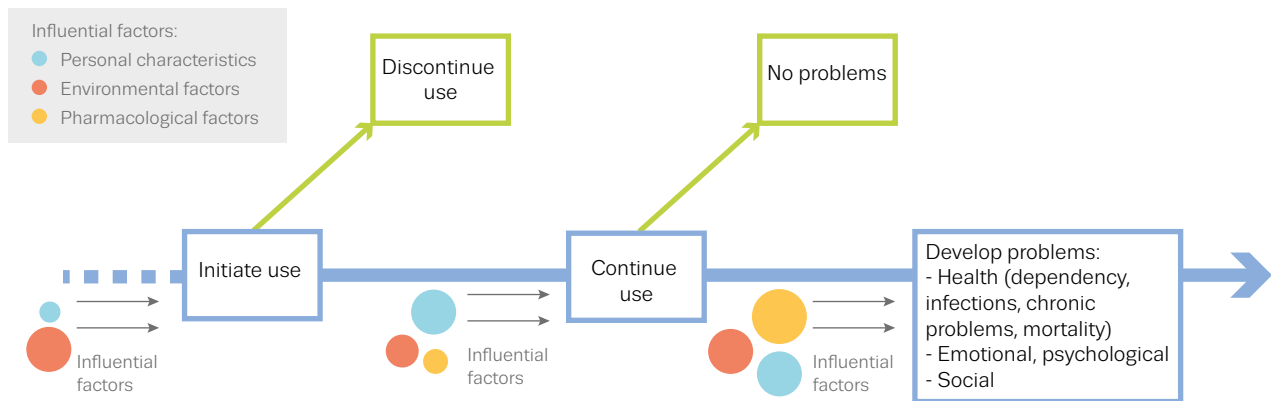
substance use (e.g. the subjective experience the drug produces), whether or not it is rewarding and pleasurable, and whether or not it serves a particular function for the user (e.g. it helps them to socialise or to self-medicate a (perceived) physiological or psychological need). People who continue to use substances may not necessarily experience harm, and the majority cease use, even after longer periods of use. However, some people who continue to use substances do experience problems related to health, emotional and psychological well-being, and social functioning (including involvement with the criminal justice system). Selective and indicated prevention actions, as well as harm-reduction and treatment interventions, are particularly important when trying to prevent a transition into more harmful patterns of use and reduce resultant harms.

The pathways and transitions between different types of substance use behaviour are sometimes referred to as the 'natural history' of substance use and substance use disorders. Risk and protective factors, and potential harms, differ at different points on the pathway.

Those factors that determined initiation will be different from those that determine continued use, and the harms related to use will differ accordingly. It is also important to remember that people who do not currently use substances are not a single group, as they may include those who have experimented with use or have experienced problem use in the past.

There is therefore a need for a wide range of comprehensive social, emotional, physical and vocational services to address the needs of people who use substances, no matter where they are on their substance

FIGURE 6
Pathways of substance use

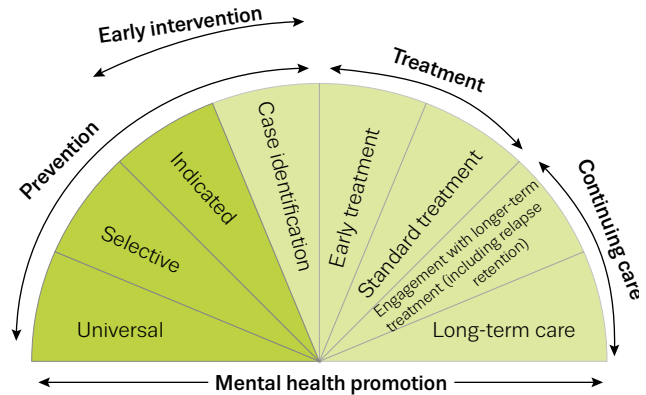


use pathway (Figure 7). In general, the spectrum of prevention programming targets three groups.

- Universal interventions and policies address all members of a target group, regardless of their underlying risk of substance use or substance use history. However, most are likely to be non-users. This category of interventions would encompass most of the school-based curricula and school and environmental policies that we will learn about later.
- Selective interventions address vulnerable groups, where substance use is often concentrated, and focus on improving their opportunities in difficult living and social conditions. This category also includes school and family interventions, and policies that keep children in schools.
- Indicated interventions address individuals, helping them to deal and cope with their individual personality traits and risk factors that make them more vulnerable to escalating substance use.

While universal interventions are typically (although not exclusively) aimed at target groups prior to substance use initiation, indicated and selective preventions can be implemented at all transition points.

FIGURE 7
Diversity in responses to substance use problems



Source: Adapted from Mrazek and Haggerty, 1994

Brief interventions (or 'early interventions') are linked to indicated prevention and are not widely implemented in European prevention practice, even though they are more common with respect to alcohol use. Brief interventions aim to prevent or delay substance use and prevent escalation into substance use problems. These interventions are time-limited and operate, as seen in Figure 7, in the transition area between prevention and treatment. They typically target young people or people at risk (EMCDDA, 2017b).

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CHAPTER 2

Foundations of prevention science and evidence-based prevention interventions

This chapter presents the concepts of 'evidence-based practice' and 'best practice', as these bring with them important differences in approaches to prevention work. It also provides an overview of important theories, highlighting popular theories and introducing the behaviour change wheel, which is one way of classifying types of prevention intervention and policy function. Finally, the chapter introduces the concept of adaptation of interventions and the importance of fidelity of implementation.

Definitions and principles

Substance use prevention aims to stop people from initiating substance use and can help those who have already started to use to avoid developing problems. However, substance use prevention has a broader intent: to keep people healthy and safe and to help them to realise their talents and potential. The design and delivery of effective evidence-based responses to substance use problems is a central focus of European substance use policies and involves a range of measures.

So what does 'evidence-based' prevention mean? Here is a definition from the Evidence Based Practice Institute

of the University of Washington (2012): "Evidence Based Practice" is the use of systematic decision-making processes or provision of services which have been shown, through available scientific evidence, to consistently improve measurable client outcomes. Instead of tradition, gut reaction or single observations as the basis of decision-making, evidence based practice relies on data collected through experimental research and accounts for individual client characteristics and clinician expertise.'

There are two key aspects to this definition: systematic decision-making using scientific evidence that is associated with improved or positive outcomes, and reliance on data collected through rigorous experimental research. This is a challenging issue, but a general understanding of its complexities is required to understand why the experts often — and quite legitimately — disagree on what prevention programmes and practices can be called 'evidence based' as opposed to 'promising' or 'best practice'.

The definition of 'best practice' used by the EMCDDA on its website is 'the best application of available evidence to current activities in the drugs field'. The EMCDDA goes on to say that:

- the evidence of effectiveness should be relevant to the problems and issues experienced by those affected by

substance use, including professionals, policy-makers, substance users and their families;

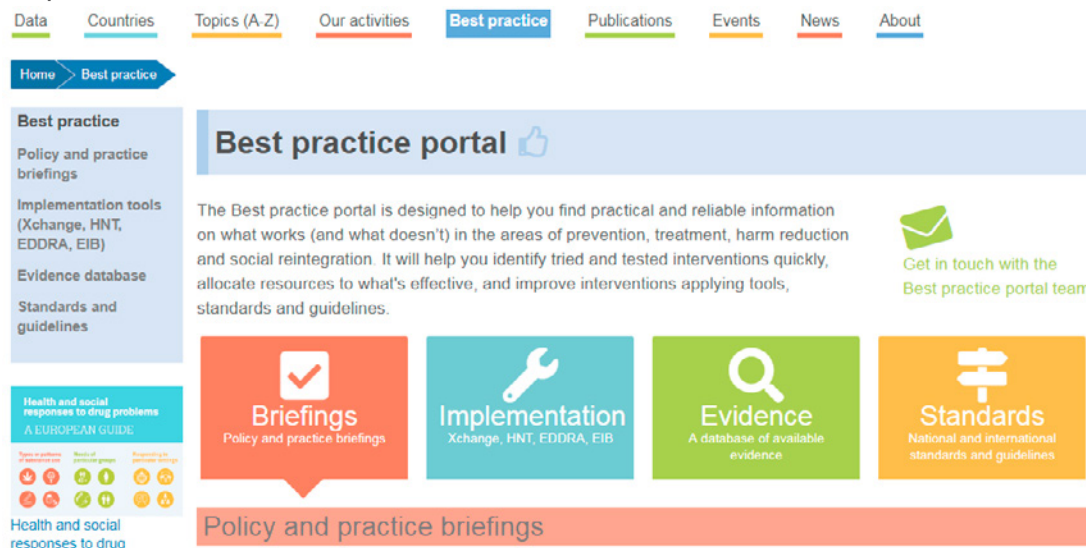
- all methods for determining best practices should be 'transparent, reliable and transferable';
- all appropriate evidence should be considered;
- both evidence of effectiveness and feasibility of implementation should be considered in the decision-making process.

Prevention researchers and practitioners have accumulated a wealth of information that has served to inform the development and delivery of effective prevention interventions and policies for a variety of behaviours, including substance use. The EMCDDA has centralised many of these interventions on their website (Figure 8), where you

can find information on best practice for different settings, types of substances and treatment. It is available for consultation (<http://www.emcdda.europa.eu/best-practice>).

The European Society for Prevention Research defines prevention science as 'a multi-disciplinary endeavour to consider aetiology, epidemiology, intervention design, effectiveness and implementation for the prevention of a variety of health and social problems' ⁽⁶⁾. Such problems include, but are not limited to, substance use problems, sexual health and teenage pregnancy, HIV/AIDS, violence, accidents, suicide, mental illness, delinquency, obesity, poor diet/nutrition, lack of exercise and chronic illness. A common characteristic is the importance of behaviour as a determinant of ill health and health inequality.

FIGURE 8
Best practice portal of the EMCDDA



⁽⁶⁾ www.euspr.org/prevention-science/

Behavioural risk factors are important causes of non-communicable disease. Prevention science covers the systematic study of interventions to reduce the incidence of maladaptive behaviours and to promote adaptive behaviours in populations. This requires expertise in a variety of theoretical and methodological approaches for the purpose of conducting research within the social and societal systems of the family, health and education, the workplace, the community, social welfare, environmental planning, urban design and fiscal policy.

The US Society for Prevention Research has provided guiding principles for the prevention field. These principles provide the foundation for the EUPC and stress the importance of the following factors for successful prevention activities.

- Developmental focus: this means that, as prevention professionals, we need to understand that the factors that influence behaviours vary at different ages throughout the life course. It also means that there are developmental or age-related tasks that need to be accomplished as children grow (see Annex 2). Disruption in the accomplishment of these tasks may lead to the occurrence of disorders or risky behaviours at certain stages of development. All of this needs to be considered as we review potential prevention interventions that we want to use in our communities.
- Developmental epidemiology of the target population plays a critical role in prevention. We recognise how transitions between different ages place children at varying risks, e.g. a child's transition from spending most of their time at home to spending most of their time in school and subsequently developing independence and moving out of the family home. We also need to acknowledge that there are different factors related to substance use within and across populations, i.e. the factors or processes leading to substance use initiation and continued use vary between individuals, groups and populations.
- Transactional, ecological factors are the various environmental influences on our beliefs, values, attitudes and behaviours. This includes the interaction between the characteristics of an individual, their family, school, community, and the larger socio-political and physical environments. These interactions not only influence our beliefs, attitudes and behaviour, but are also interdependent, affecting each other.
- Understanding human motivation and change processes helps design effective interventions, which seek change in individuals and environments to prevent or treat substance use. Many factors play a role in influencing behaviours and affecting decision-making, including about using psychoactive substances or engaging in other high-risk behaviours.
- The transdisciplinary nature of prevention science means that we need to involve multi-disciplinary teams with an array of expertise to address the complexity of the issues addressed by prevention science.
- Professional ethical standards are based on values. Values are the basic beliefs that an individual deems to be true and are also seen as guiding principles in their life or the basis upon which they make a decision. Prevention involves decisions with regard to the treatment of others in the most important settings of an individual's life — the family, school and the workplace. But it also involves society, where policies and laws regulate desired and antisocial/illegal behaviour.
- Continuous feedback between theoretical and empirical investigations seeks to explain the mechanisms that account for a behavioural outcome discovered through epidemiological investigations or through evaluations of prevention interventions.

- Improving public health is a vision that prevention science can achieve through the collaborative work of prevention scientists and prevention practitioners, using their collective skills and particular expertise.
- Social justice is related to the human rights movement and healthcare is a human right. Social justice is the ethical and moral imperative to understand why certain population subgroups carry a disproportionate burden of disease, disability and death, and it is important to design and implement prevention programmes and systems and policy changes to address the root causes of inequities.

Theoretical underpinning of prevention

Several important theories have informed the development of evidence-based prevention interventions and research objectives. When prevention scientists and practitioners talk about theory, they are referring to a set of interrelated concepts that are used to describe, explain and predict how various aspects of human behaviour are related to each other. In most cases, theories draw from empirical or research evidence and are further refined in continued research.

An important step in building an evidence-based intervention is to select a theoretical framework for the intervention. Such a framework:

- provides an understanding of the environmental and/or behavioural determinants related to a specified health problem;
- clarifies potential mechanisms for producing the desired outcome of interest;
- helps to select the intervention strategy or approach that will achieve these outcomes (Bartholomew and Mullen, 2011).

In the field of prevention, there are theories of aetiology (the causes of substance use), human development and human behaviours. Theories of human behaviour applied in prevention interventions include those that focus on how human beings learn and those that focus on how human beings can change their behaviours, particularly behaviours that have risky health and social outcomes, such as substance use.

Prevention science draws heavily on theories developed in other fields, such as behavioural economics, neuropsychology and behavioural science. Table 2 highlights some of these that have an important influence on prevention, as well as some theories that are unique to prevention science.

It is important to know about these theories, even in their brief form, to understand that developing effective interventions is based on empirically driven theory. One of the popularly applied theories for prevention science has been the theory of planned behaviour (TPB; Figure 9). This is included below as an example of how theory might inform intervention development and content. Factors considered in the TPB include the following.

- Attitudes towards the behaviour — beliefs regarding the association of positive or negative consequences with the behaviour of interest and the value placed on those consequences, e.g. 'What would happen if I smoke cigarettes? What are the health consequences? Are these real? Will it affect my life and the lives of those around me?'

TABLE 2
Overview of some important prevention theories

Theory	Contents
General theories	
Bandura's Social Learning Theory (1977)	Humans learn behaviour by observing others and imitating and modelling these behaviours
Jessor and Jessor's Problem Behavior Theory (1977)	Multiple risky behaviours have the same or common root or base and these are influenced by the interaction of the individual with their environment
Bronfenbrenner's Ecology of Human Development (1979)	Systems or contexts outside the individual and how they influence individual behaviour
Ajzen's Theory of Planned Behavior (1991)	There is a link between attitudes and behaviour and three sets of perceptions/attitudes guide behaviour: <ul style="list-style-type: none"> ■ beliefs about the outcomes or consequences of the behaviour ■ beliefs about others' normative expectations (or social acceptability) of the behaviour ■ beliefs about the barriers to and enhancers of the performance of the behaviour
Prevention-specific theories	
Flay and Petraitis' Theory of Triadic Influence (2003)	Three influences contribute to risky behaviour: <ul style="list-style-type: none"> ■ cultural factors (e.g. the perceived tolerance for adolescent alcohol use) ■ social or interpersonal factors (e.g. having parents who use substances) ■ intrapersonal factors (e.g. poor impulse control)
Hawkins and colleagues' Risk and Protective Factors (1992)	Risks of substance use are divided into societal and cultural factors that provide the legal and normative expectations of behaviour and intra- and inter-personal factors (families, school classrooms and peers)
Catalano and colleagues' Positive Youth Development (1999)	It is important to enhance and reinforce positive development
Werner and Smith's Resilience Theory (1982)	Some individuals have special abilities to adapt to stressful situations and events
Biglan and Hinds' Nurturing Environments (2009)	This combines many aspects of these other theories and focuses on risk reduction and the promotion of resilience and other positive attributes

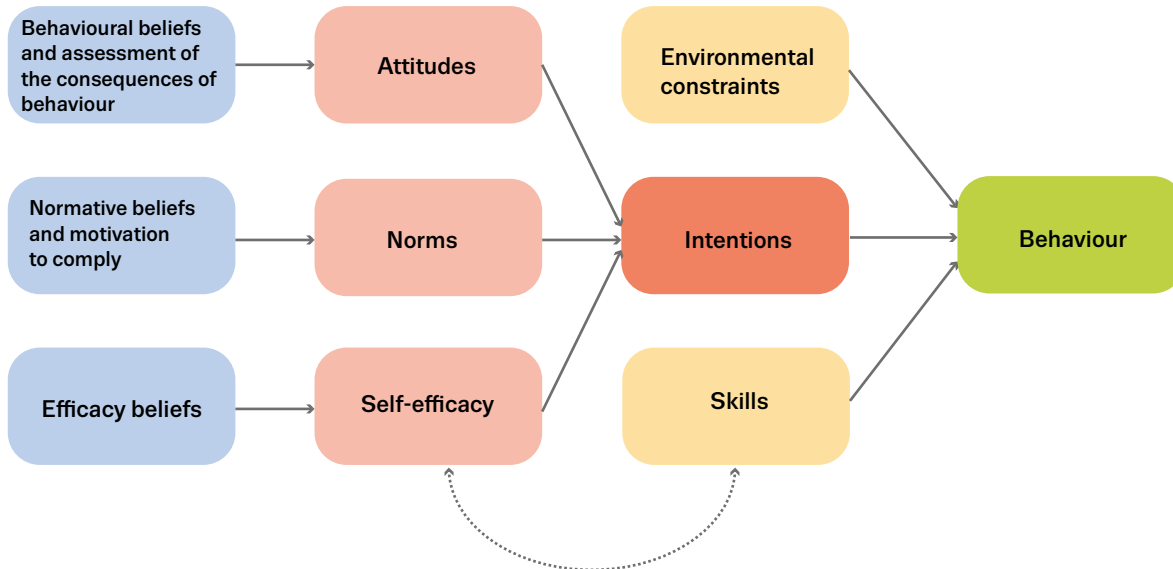
- Perceptions of the consequences of the behaviour and the normative nature of the behaviour by influential others, e.g. 'If I begin smoking what would my parents say? What would my friends say?'
- Beliefs regarding the skills that would impede or facilitate the behaviour and perceptions of one's ability to control the behaviour, e.g. 'Do I have the skills to resist using alcohol at my friend's party?'

The interaction between these components informs an individual's intention to perform the behaviour, such as substance use, and, of course, informs whether or not the individual has the skills and resources to facilitate the behaviour. The next step in adopting a theoretical foundation for an intervention is to develop intervention objectives.

The difficulty in constructing a theory-based intervention is the conversion of theory into practice. How do you transition from identified objectives to good interventions and policies? A helpful tool to guide you through this process is the behaviour change wheel, developed by Susan Michie and colleagues (2011), which is based on the overarching COM-B (capability, opportunity, motivation and behaviour) model.

The COM-B model reflects the possible sources of behaviour, as seen in the inner circle of the behaviour change wheel (Figure 10). Broad categories of approaches that can be used to achieve behaviour change are illustrated in the outer circles of the wheel. The outer circles provide both intervention and policy methods to change behaviour and types of interventions that have been used to influence

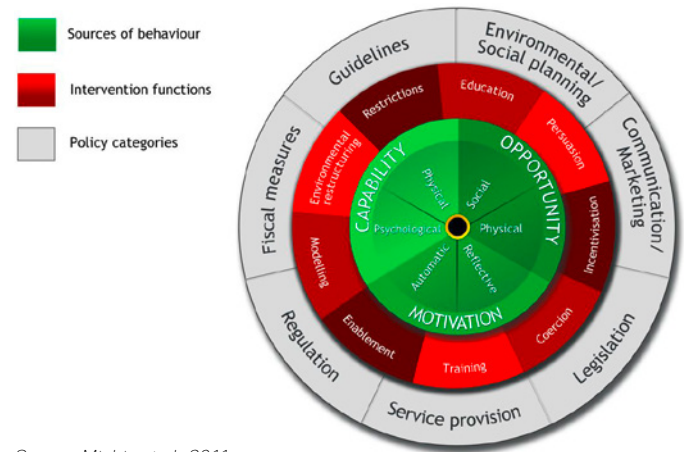
FIGURE 9
Theory of planned behaviour



behaviour. While the behaviour change wheel does not allow you to identify which specific interventions to implement, it is useful for narrowing down and choosing the kind of approach that might be useful.

Motivation is considered something automatic and reflective, whereas capability implies being both psychologically and physically capable. Opportunity refers to the chances given in the social or physical context for the performance of a particular behaviour. The red circle summarises appropriate intervention approaches that target these behavioural determinants and the grey outer circle includes policy mechanisms that support the delivery of the interventions.

FIGURE 10
The behaviour change wheel



Source: Michie et al., 2011

Programme X example

Let's apply this example to a school-based prevention intervention to see how theory might inform the development of an intervention. Here, we have a hypothetical Programme X: an evidence-based prevention school curriculum. What characteristics would we want this intervention to have?

The first prevention target from the TPB model is attitudes towards the behaviour and its consequences, perceptions of the consequences of substance use for the target adolescents and normative beliefs (perceptions about the normative nature of substance use among their peers). These attitudes and perceptions will help the target group make decisions about using substances; in general, the target group will intend not to use them. Once they make that decision, participation in the intervention will help the target group develop the skills they need

to support this decision. These include communication and resistance skills and may also include other life skills associated with achieving prosocial and positive objectives and goals.

The intervention helps students to achieve these objectives and goals by encouraging them to collect information and use decision-making and other skills to interpret this information and apply it to their own lives. This can be done through small group activities and discussion groups.

The intervention needs to do more than increase perceptions of self-efficacy to resist the use of substances. A good intervention will do this by teaching behavioural strategies through modelling, skills training, guided practice with feedback and reinforcement.

Structure, content and delivery

There are three important aspects of prevention interventions: structure, content and delivery. All three aspects are guided by theory.

The structural component reflects how the prevention intervention or policy is organised and laid out, for example the number and length of intervention lessons (e.g. Will Programme X consist of 10, 15 or 20 lessons? How long will the lessons take — 30 minutes, 45 minutes? Will they be spread over a week or several weeks?).

The category 'content' is related to the objectives of the intervention and has to do with what information, skills and strategies are used to achieve the desired objectives. For example, these might include the inclusion of peer refusal skills and social norm development in the intervention, in addition to family communication training.

The category 'delivery' looks at how the intervention or policy is to be implemented and how it is expected to be received by the target audience. Examples of this aspect of intervention include employing interactive instructional strategies for adolescents and adults, offering parenting skills interventions at times that are convenient for families and monitoring the implementation of an intervention or policy to enhance fidelity to the intervention's core elements.

Target populations

Drawing on the aetiology model discussed above, we can identify several key areas in which an intervention can be effective in preventing the formation of beliefs, attitudes

and behaviours that can lead to substance use and related risky behaviours. These intervention points address not only individuals directly but also their micro- and macro-level environments. Over the course of this curriculum, you will hear about prevention interventions that are delivered to parents, teachers, children and adolescents, and within the family, at school and at community level.

When targeting the intervention/policy, a number of characteristics are important.

- Age is related to developmental competencies, to being 'at risk' and to the level of severity for substance use consequences. Age is also a means of targeting interventions and should be taken into account when planning delivery. In school-based prevention, for example, different types of activity have been shown to be more effective for different age and developmental groups. Communities/cultures may also differ in the types of behaviours they consider to be acceptable for different age groups. For example, in addition to laws that place age restrictions on the purchase of goods such as alcohol, supervised alcohol use at important family celebrations may be acceptable for older adolescents but not for younger children.
- Gender may play a role in a person being 'at risk' and may be important for the setting in which the intervention takes place. Furthermore, societies/cultures may have different expectations for females and males that need to be addressed in the intervention. However, it is important that prevention interventions do not reinforce unhelpful gender stereotypes that permit some types of health-compromising behaviour for males but not for females.
- Geographical location is important not only in terms of what substances may be available, but also for what

resources and support services may be available and within easy access.

- Reach means the extent to which the intervention or policy is intended to reach various groups.
- Finally, the focus of an intervention or policy could be populations with varying levels of vulnerability and risk.

To identify the target population and their specific needs, we will need to perform a needs assessment, which is discussed in Chapter 3.

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CHAPTER 3

Evidence-based prevention interventions and policies

This chapter provides a more in-depth overview of two important documents that provide the main foundation for this curriculum. The first document is the International Standards on Drug Use Prevention (UNODC, 2013) ⁽⁹⁾, which summarises the science that underlies evidence-based prevention interventions and policies for preventing substance use or reducing substance use. The standards were developed by the UNODC and the WHO, in collaboration with prevention researchers, prevention specialists and policy-makers from around the world. In addition, we provide information about registries of evidence-based programmes, which can be used to find and select appropriate evidence-based interventions for your situation, in accordance with the recommendations of the UNODC standards.

The second source is the EDPQS published by the EMCDDA. This provides a European framework for conducting high-quality substance use prevention. In contrast to the International Standards, which focus on the content, structure and most appropriate instructional strategy of the interventions, the EDPQS focus on how to plan for, select and implement prevention interventions to assure quality (EMCDDA, 2013a).

⁽⁹⁾ The second edition was published in March 2018.

The International Standards on Drug Use Prevention

The International Standards were designed to pull together the findings of prevention research and identify the key characteristics of evidence-based prevention interventions and policies that have been found to reduce substance use.

The aim of the International Standards document is to help decision-makers support interventions or policies that have been shown to be effective through rigorous research. Furthermore, the standards offer an opportunity for opinion- and decision-makers, prevention researchers and others who understand the importance of effective prevention to plan effective prevention programming for their society.

The UNODC review group systematically reviewed the articles and studies on substance use, selecting those that were most relevant to substance use prevention interventions. Then, these articles and studies were categorised by the methods that were used to assess the outcomes of substance use prevention interventions. A 'quality of evidence' assessment was developed and used to classify the evidence as 'excellent' (five stars), 'very good' (four stars), 'good' (three stars), 'adequate' (two stars) or 'limited' (one star).

Once the analyses were completed, the articles and studies were categorised using three dimensions, which describe the reviewed substance use prevention interventions and policies:

- age-related developmental periods — infancy and early childhood, middle childhood, adolescence, and late adolescence and adulthood;
- the setting in which the intervention or policy is implemented — family, school, workplace or community;
- target population — universal, selective or indicated.

A brief description of the findings is presented below by each age-related developmental period. Using a human developmental framework, the Standards recognise that individuals at various stages of development (infancy and early childhood, middle childhood, adolescence, and late adolescence and adulthood) have different needs and respond to different types of instructional strategies. Furthermore, the document recognises that interventions and policies can be delivered in different settings, such as within the family, at school, in the workplace or in the community, and can target either those who influence the lives of individuals (parents, teachers, work supervisors)

or the individuals themselves. It also recognises that the risk status of different populations (universal, selective or indicated) is important to the appropriate delivery of the interventions.

Infancy and early childhood includes children up to 6 years old.

As can be seen in Table 3, three types of intervention were found to have some effect on this age group, although the quality of evidence differed between them.

Interventions targeting pregnant women with substance use disorders had limited evidence of efficacy. The studies that had good outcomes concerned interventions that were delivered by trained health workers. The content of the effective interventions included:

- pharmacological and/or psychosocial therapy tailored to the needs of the patient;
- treatment of any evident comorbid physical and/or mental health disorders;
- provision of parenting skills to enhance warm attachment;

TABLE 3
Evidence-based prevention interventions during infancy and early childhood

Intervention	Level of risk targeted	Indication of efficacy
Intervention targeting pregnant women with substance abuse disorders	Selective Groups at risk	* Limited
Prenatal and infancy visitation	Selective Groups at risk	** Adequate
Early childhood education	Selective Groups at risk	**** Very good
Community-based multi-component		

- services that were provided within an integrated treatment setting.

Interventions involving health visits for new mothers who have substance use or related problems were assessed as having adequate evidence of efficacy:

- when delivered by health workers trained to provide these services within the recommended structure — this includes regular visits to the baby up to the age of 2 years, initially providing services and support every 2 weeks and then on a monthly basis;
- when they provided basic parenting skills;
- when they provided support for the mothers in terms of their physical and mental health, housing, food and employment when needed.

These are the types of intervention that can be integrated into other existing programmes for new mothers or even wellness programmes for newborns or infants.

Early childhood education selective interventions that target children aged between 2 and 5 years old who live in deprived environments have been found to have good

evidence of effectiveness. Such interventions not only have an impact on the use of cannabis in adolescence, but also prevent other risky behaviours and support academic achievement, social inclusion and mental health. There were several key aspects of these interventions.

- Training is required for teachers and counsellors before they can deliver the interventions.
- They emphasise appropriate cognitive, social and language skills for children and prepare them for the school setting and their roles as students, as well as for academic challenges.
- They consist of daily sessions over extended periods of time.

Middle childhood includes children aged between 6 and 10 years.

For this age group, the interventions shown in Table 4 were found to have 'adequate' to 'very good' evidence of efficacy. Three interventions targeted universal groups and one targeted selective or at-risk groups, although the approaches to keeping children in school focused primarily on at-risk children.

TABLE 4
Evidence-based prevention interventions during middle childhood

Intervention	Level of risk targeted	Indication of efficacy
Parenting skills programmes	Universal and selective General population and groups at risk	**** Very good
Personal and social skills education	Universal General population	*** Good
Classroom environment improvement programmes	Universal General population	*** Good
Policies to keep children in school	Selective Groups at risk	** Adequate
Community-based multi-component		

Parenting skills interventions provide support to parents and improve their parenting styles and skills. They have been found to be effective for the general population of children, as well as children at risk. There was strong evidence for the importance of interventions that develop parenting skills for this developmental period. The content of interventions that were found to be linked to positive outcomes focused on enhancing family bonding and providing parents/caregivers with the skills for:

- warm child-rearing;
- setting rules for acceptable behaviour;
- monitoring free time and friendship patterns;
- enforcing positive and developmentally appropriate discipline;
- involving themselves in children’s learning and education;
- becoming role models.

Parenting skills interventions with positive outcomes included multiple interactive sessions that involved both parents and children. Again, all practitioners had received specialised training.

Those parenting skills interventions that had no impact or generated negative outcomes were those that focused only on the child or in which the primary form of delivery was lectures. It was also found that parenting skills interventions that just provided information to parents or caregivers about drugs, or that undermined parents’ authority, led to either no positive outcomes or negative outcomes.

Personal and social skills development interventions are generally delivered within school settings. The evidence for their effectiveness is good. These interventions provide opportunities for children to learn skills that will help them cope with a variety of situations that arise in their daily lives. They support the development of general social

competencies and address normative beliefs and attitudes towards substances and substance-related behaviours.

These are largely interventions that:

- are delivered by trained teachers, who use interactive methods to deliver the content;
- have a primary focus on skills development, specifically coping skills and personal and social skills;
- are generally taught in the first years of school and actively engage students;
- consist of a series of sessions;
- strengthen classroom management competencies of teachers and support the socialisation of children, so they can successfully assume their roles as students.

Strategies that improve the school experience and enhance positive feelings about school and education are also important. These interventions improve both academic and socio-emotional learning. School-based prevention will be discussed in more detail later on in this curriculum.

Adolescence covers the ages of 11 to 18 and is a period of many challenges, as the brain continues to develop in the context of hormonal and other normal biological processes. However, many brain functions continue to develop past adolescence, which highlights the importance of interventions after the age of 18.

There are many evaluation studies of interventions that target adolescence (Table 5). Parenting skills interventions were discussed earlier and are relevant to this age group, as are personal and social skills curricula and positive school policies addressing universal populations. For the more at-risk population, interventions that provide individual attention, such as those that address psychological vulnerabilities and mentoring, have adequate evidence of effectiveness.

TABLE 5
Evidence-based prevention interventions during adolescence

Intervention	Level of risk targeted	Indication of efficacy
Prevention education based on personal and social skills and social influence	Universal and selective General population and groups at risk	*** Good
School policy and culture	Universal General population	** Adequate
Addressing individual psychological vulnerabilities	Indicated Individual at risk	** Adequate

Parenting skills interventions for this group focus on effective parenting skills programmes for adolescents and include:

- interventions that enhance family bonding and parenting skills, particularly in setting rules, monitoring free time and friendship patterns, and continuing to be involved in the child's educational experience;
- interventions that present material, situations and issues that are relevant to older children, including multiple group sessions that are highly interactive.

Such interventions require trained instructors and should be organised to facilitate full participation.

Personal and social skills education interventions are also very relevant to this age group.

- They foster substance and peer refusal competencies to counter social pressures regarding the use of substances and to cope with challenging life situations in healthy ways.
- The additional components address perceptions of risk or harm associated with substance use, with a focus on consequences that are particularly relevant to adolescence.

- These interventions address misconceptions generally held by adolescents regarding the normative nature of substance use, with many overestimating the number of their peers who they think smoke, drink or use other substances.
- These interventions provide accurate information to help adolescents weigh up perceived consequences of substance use against their perceptions of the expectations associated with substance use.
- The active engagement in prevention activities requires trained teachers or practitioners to function more as facilitators and coaches than as lecturers.

School policies offer other opportunities for evidence-based prevention interventions within the school environment, particularly those that relate to the use of substances and address how to handle violations of such policies. Well-designed policies can also create a more positive environment in which students feel safe, comfortable and successful. They have been found to be effective, with adequate evidence that they produced a positive impact on substance use among all students as well as school staff.

Individual psychological counselling or brief intervention is appropriate during this period for children with psychological vulnerabilities, such as sensation-seeking,

impulsivity, anxiety sensitivity or hopelessness, which have been found to be associated with substance use if not addressed. Young people in this group may also have problems in school, with their parents or with their peers. In general, those who identify with these types of problems:

- are screened by professionals using validated instruments;
- receive interventions that provide them with the skills to cope positively with their emotions and psychological vulnerabilities;
- receive interventions that are delivered by trained professionals and consist of two to five short sessions.

Mentoring programmes, particularly for young people at risk of engagement in risky behaviours, do not provide strong evidence of effectiveness. However, the research literature indicates that trained mentors delivering a very structured programme of activities can result in positive outcomes. In general, these types of programmes match a young person with an adult who is committed to supporting the young person on a regular basis and over an extended period of time.

Later adolescence and adulthood includes young adults from the age of 18 onwards.

Alcohol and tobacco policies have excellent scientific support for effectiveness (Table 6). As tobacco and alcohol use is more prevalent than illicit drug use and the associated population health burden is greater, delaying the use of these substances among young people can have a significant societal impact.

- Evidence-based tobacco and alcohol policies are those that reduce access to underage children and adolescents and reduce the availability of tobacco and alcohol products.
- Successful policies are those that increase the minimum age for the sale of these products and also increase prices through taxation.
- Banning the advertising of tobacco and restricting the advertising of alcohol products targeting young people have also been shown to reduce use.
- Active and consistent enforcement of these policies and the involvement of retailers through educational programmes are part of the effective approaches to tobacco and alcohol use.

The levels of efficacy of other interventions that are going to be discussed in this handbook are listed in Table 7.

TABLE 6
Evidence-based prevention interventions during later adolescence and adulthood

Intervention	Level of risk targeted	Indication of efficacy
Prevention education based on personal and social skills and social influence		
School policy and culture		
Addressing individual psychological vulnerabilities		
Mentoring		
Alcohol and tobacco policies	Universal General population	***** Excellent

TABLE 7
Evidence-based prevention interventions in different settings

Intervention	Level of risk targeted	Indication of efficacy
Community-based multi-component	Universal and selective General population and groups at risk	*** Good
Media campaigns	Universal General population	* Limited
Workplace prevention	Universal, selective and indicated All components	*** Good
Entertainment venues	Universal General population	* Limited
Brief intervention	Indicated Individual at risk	**** Very good

The European Drug Prevention Quality Standards

The EDPQS are designed to improve the development and delivery of prevention interventions and policies, reduce the implementation of approaches that have been found to be ineffective and ensure that prevention activities are delivered by competent organisations and professionals and are suitable for a given context or target group. These standards aim to stimulate a change in the professional culture of prevention towards a more systematic and evidence-based approach to prevention work.

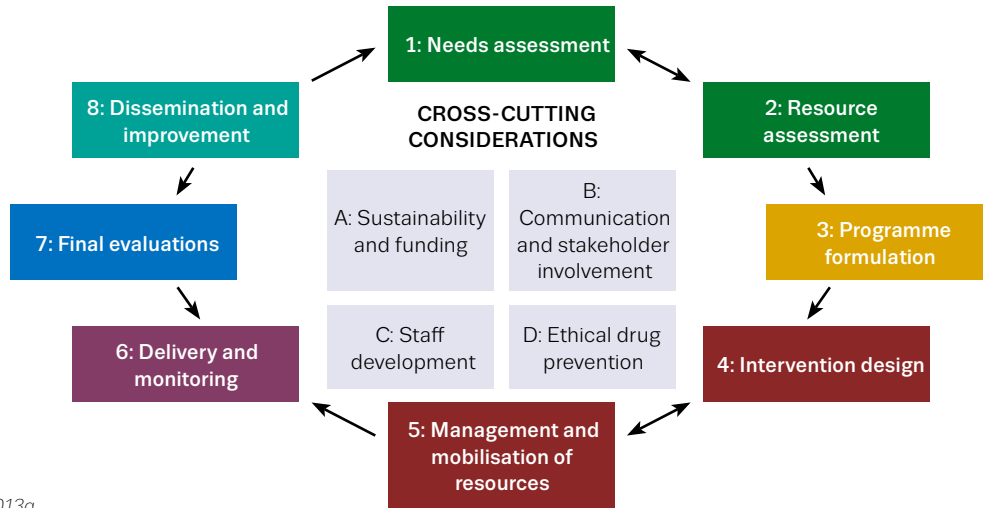
The EDPQS describe a project cycle with eight stages (see Figure 11). Although the project cycle suggests a designated sequence of activities, in practice some stages may be completed in a different order and not all stages may be relevant to all types of prevention activity. In addition, the EDPQS provide some cross-cutting considerations that should be considered at each stage of the project. The following description of the project cycle is based on the quick guide to the EDPQS (EMCDDA, 2013a).

The cross-cutting considerations are recurring themes that concern the entire project cycle, not just one project stage. There are four such themes, which are described below: sustainability and funding, communication and stakeholder involvement, staff development and ethical substance use prevention.

A: Sustainability and funding

Interventions should be embedded in a wider framework of substance use prevention activities. The long-term viability of prevention work should be ensured as far as possible. Ideally, where appropriate, interventions should continue beyond their initial implementation and/or after external funding has stopped. However, sustainability depends not only on the continued availability of funding, but also on the lasting commitment of staff and other relevant stakeholders to the organisation and/or the field of substance use prevention. While some individual interventions may be time limited, others may be part of a long-term prevention strategy where longevity is important.

FIGURE 11
The substance use prevention project cycle



Source: EMCDDA, 2013a

B: Communication and stakeholder involvement

Stakeholders are individuals, groups and organisations that have a vested interest in the activities and outcomes of the interventions and/or are directly or indirectly affected by it, such as the target population, the community, funders and other organisations working in the field of substance use prevention. They should be contacted and involved in the planning and design of interventions and/or policies, to coordinate efforts, share lessons learnt and establish joint planning and budgeting.

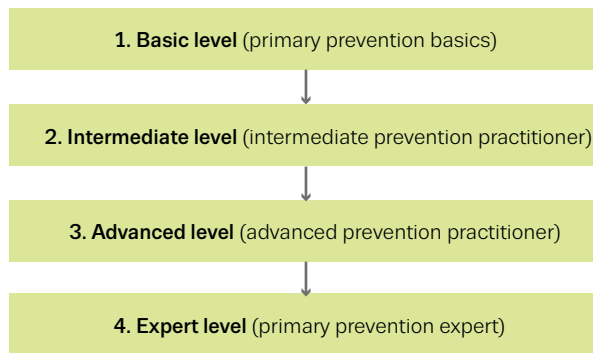
C: Staff development

This component consists of three pillars: staff training, continuous staff development, and professional and emotional support. Staff training needs should be

assessed before implementation, and staff members should be trained to ensure that the intervention/policy is delivered to a high standard. Continuous staff development is a means of rewarding and retaining staff members and ensuring that their knowledge and skills are up to date. During the implementation of the interventions and/or policies, it is important to give staff members the opportunity to reflect on and improve their work.

The quality of staff is an important influence on the quality of interventions and is closely linked to the training or education received. Unfortunately, there is no unified training system for prevention workers in many European countries. Charvat and colleagues (2012) have proposed a qualification system for prevention practitioners in the school system (Figure 12) in an attempt to standardise different levels of training and education, which in turn reflects the specified knowledge and skills required of staff.

FIGURE 12
Levels of training and education



Source: Adapted from Charvat et al., 2012

So, for example, a school teacher delivering a simple education programme or drug awareness session would be required to achieve only the basic level of competency, while an education specialist responsible for screening students and delivering an indicated prevention programme would be expected to demonstrate advanced competencies. The EUPC, and the UPC-Adapt project in general, is another attempt to improve and standardise training across Europe.

| D: Ethical substance use prevention

Substance use prevention activities have an impact on people's lives and are typically targeted at young people; in the case of selective and indicated prevention, these young people can be among the most vulnerable in society. Professionals should not assume that substance prevention activities are, by definition, ethical and beneficial for participants. While it may not always be possible to adhere to all principles of ethical substance

use prevention, an ethical approach must be clearly evident at every project stage. Consequently, protocols should be developed to protect participants' rights, and potential risks should be assessed and mitigated.

We now move on to each stage of the project cycle.

| Step 1: Needs assessment

Before the intervention can be planned in detail, it is important to explore the nature and extent of substance-use-related needs, as well as possible causes of and contributing factors to those needs. Such assessment ensures that the intervention is required and that it will address the correct needs and target population(s). Four types of needs are distinguished: policy needs, (general) community needs, needs defined by gaps in the provision of prevention and (specific) target population needs.

1.1 Knowing substance-use-related policy and legislation: substance-related policy and legislation should guide all substance prevention activities. The team must be aware of and work in correspondence with substance-related policy and legislation at local, regional, national and/or international levels. Where interventions address needs that are not current policy priorities, they should still support the wider substance use prevention agenda, as defined by national or international strategies. Other guidance, such as binding standards and guidelines, should also be considered where appropriate.

1.2 Assessing substance use and community needs: the second component of this project stage specifies the requirement to assess the substance use situation in the general population or specific subpopulations. It is not sufficient to rely on assumptions or ideology when planning prevention work. Instead, prevention

interventions or policies must be informed by an empirical assessment of people’s needs. Other relevant issues, such as deprivation and inequalities, should also be assessed to take account of the relationship between substance use and other needs.

1.3 Describing the need — justifying the intervention: the findings from the community needs assessment are documented and contextualised to justify the need for intervention. The justification should take into account the views of the community to ensure that the intervention is relevant to them. A focus on ‘needs’ rather than ‘problems’ can help engage stakeholders who may otherwise feel stigmatised. Existing prevention interventions or policies are also analysed at this point to gain an understanding of how the intervention can complement the current structure of provision.

1.4 Understanding the target population: the needs assessment is then taken further through the collection of detailed data on the prospective target population, such as information about risk and protective factors, and the target population’s culture and everyday life. A good understanding of the target population and its realities is a prerequisite for effective, cost-effective and ethical substance use prevention. Where appropriate, an intermediate target population, which may receive the intervention although it is not at risk of substance use (e.g. parents, teachers), may need to be considered in addition to the ultimate target population (e.g. young people at risk of substance use).

| Step 2: Resource assessment

An intervention is defined not only by the target population’s needs, but also by available resources. Whereas the needs assessment (see ‘Step 1: Needs

assessment’) indicates what the intervention or policy should aim to achieve, the resource assessment provides important information on if and how these aims can be achieved.

2.1 Assessing target population and community resources: prevention interventions or policies can be successful only if the target population, community and other relevant stakeholders are ‘ready’ to engage (i.e. if they are able and willing to take part or support the implementation). They may also have resources that can be utilised as part of the intervention (e.g. networks, skills). The standards in this component describe the requirement to assess and consider potential sources of opposition to and support for the intervention, as well as the available resources of relevant stakeholders.

2.2 Assessing internal capacities: the analysis of internal resources and capacities is important, as the intervention will be feasible only if it is in line with staff availability, financial resources and other resources. This step is carried out before intervention or policy formulation, to gain an understanding of what types of interventions or policies might be feasible. As the purpose of the assessment is to inform planning, it does not have to be a ‘formal’ assessment carried out by an external organisation, but could, for example, consist of an informal discussion between staff members, to identify organisational strengths and weaknesses in terms of resources.

| Step 3: Programme formulation

The intervention or policy formulation outlines the content and structure and provides the necessary foundation to allow targeted, detailed, coherent and realistic planning. Based on the assessment of the target population’s

needs and available resources, the core elements of the intervention or policy should be clearly defined.

3.1 Defining the target population: a good definition of the target population ensures that the intervention targets the right people. The target population may consist of individuals, groups, households, organisations, communities, settings and/or other units, as long as they are identifiable and clearly defined. The definition should be specific and appropriate to the scope of the interventions or policies. For example, an important consideration is whether or not the target population can be reached with the intended approach.

3.2 Using a theoretical model: as discussed above, using a theoretical model that is suitable for the particular context of the intervention increases the likelihood that the intervention will successfully achieve its objectives. It helps identify relevant mediators of substance-use-related behaviours (e.g. intentions and beliefs that influence substance use) and determine feasible goals and objectives. All interventions should be based on sound theoretical models, particularly if they are newly developed.

3.3 Defining aims, goals and objectives: without clear aims, goals and objectives, there is a serious risk of conducting prevention work for its own sake, instead of for the benefit of the target population. The EDPQS use a three-level structure of interconnected aims, goals and objectives. Aims describe the intervention's long-term direction, general idea, purpose or intention. They may or may not be achievable within the specific intervention, but they provide a strategic direction for activities. Goals are clear statements on the intervention's outcome for participants (in terms of behaviour change) at the completion of the intervention. Objectives describe the immediate or intermediate behaviour change in participants that is necessary to achieve a final goal. Finally, operational

objectives describe the activities that are required to achieve the goals and objectives.

3.4 Defining the setting: the setting is the social and/or physical environment in which the intervention takes place, such as the family, school, the workplace, nightclubs or the community. The needs assessment may show that one or more settings are relevant; however, practical considerations (e.g. ease of access, necessary collaborations) must also be taken into account when deciding on the setting. A clear definition of the setting is essential so that others can understand where and how the intervention was delivered.

3.5 Referring to evidence of effectiveness: when planning substance use prevention work, it is important to be aware and make use of existing knowledge on 'what works'. The existing scientific evidence base on effective prevention should be consulted and the findings relevant to the planned intervention or policy should be highlighted. As discussed previously, good references for evidence-based interventions or policies are the UNODC International Standards and the EMCDDA best practice portal⁽¹⁰⁾. Scientific evidence must be integrated with the professional experience of practitioners to design an intervention that is relevant to the specific intervention context. Where scientific evidence of effectiveness is not available, professional experiences and stakeholder expertise may be consulted instead. However, the limitations of these forms of knowledge (e.g. their possible lack of generalisability) compared with robust research evidence should be carefully considered.

3.6 Determining the timeline: a realistic timeline is essential in the planning and implementation of the intervention or policy so that staff members can target and

⁽¹⁰⁾ <http://www.emcdda.europa.eu/best-practice>

coordinate their efforts. It illustrates the planned schedule of activities and applicable deadlines. The timeline may be updated during the implementation of the intervention to reflect its actual development.

| Step 4: Intervention design

These standards assist in the development of a new intervention, as well as in the selection and adaptation of an existing intervention, and also encourage the consideration of evaluation requirements as part of the intervention design.

4.1 Designing for quality and effectiveness: after the cornerstones of the intervention have been outlined, its details are specified. Planning evidence-based activities that participants will find engaging, interesting and meaningful is an important aspect of achieving the set goals and objectives. Where possible, the intervention should be designed as a logical progression of activities that reflects participants' development throughout the intervention. Consulting a variety of sources on previously implemented interventions or policies can help avoid pursuing activities that have already been shown to be ineffective or have iatrogenic effects. Good references for evidence-based interventions or policies are the UNODC International Standards and the EMCDDA best practice portal.

4.2 If selecting an existing intervention: before developing a new intervention, it should be considered if an appropriate intervention might already exist, either in practice or in manualised form. Consider, for example, if an existing programme is relevant to the particular circumstances of the intervention and (in the case of programmes that are not free of charge) if it is affordable.

4.3 Tailoring and adapting the intervention to the target population: regardless of whether a new intervention is developed or an existing intervention adapted, the intervention must be tailored to the target population, in line with the findings of the needs assessment. An essential staff competency in this regard is cultural sensitivity, i.e. the willingness and ability of staff members to understand the importance of (different types of) culture, to appreciate cultural diversity, to respond effectively to culturally defined needs and to incorporate cultural considerations into all aspects of prevention work.

4.4 If planning final evaluations: monitoring and final process and outcome evaluations should also be planned at this stage. Outcome evaluation is a means of assessing if goals and objectives were achieved, whereas process evaluation is a means of understanding how they were achieved or why they were not. The evaluation team should decide on the appropriate type of evaluation for the intervention or policy, and define evaluation indicators in line with goals and objectives. Considering evaluation at this stage ensures that the data required for monitoring and final evaluations will be available in a satisfactory form when needed.

| Step 5: Management and mobilisation of resources

A prevention intervention or policy not only consists of the actual intervention, but also requires good project management and detailed planning to ensure that it is feasible. Managerial, organisational and practical aspects need to be considered alongside the intervention design. To begin implementation, available resources must be activated and new resources accessed as necessary.

5.1 Planning the programme — drawing up the project plan: a dedicated procedure ensures that planning and

implementation are conducted systematically. A written project plan documents all tasks and procedures that are required for the successful implementation of the intervention. The project plan guides implementation by providing a common framework that all staff members can work towards. In later project stages, the project plan should be consulted to assess if the intervention or policy is implemented as intended and if any adjustments are required.

5.2 Planning financial requirements: the financial requirements (costs) and capacities (budget) of the intervention must be determined to put necessary and available resources into context. If more resources are required than are available, the financial plan clarifies what additional funding may be required or how the project plan may need to be altered.

5.3 Setting up the team: the team consists of the people working on the intervention (e.g. managing, delivering, evaluating). Staff members (including volunteers) should be chosen in accordance with legal requirements and the needs of the intervention. Roles and responsibilities should be distributed accordingly, guaranteeing that all necessary tasks have been assigned and are carried out by the most suitable persons (i.e. those with appropriate qualifications and/or experience). This component should be seen in conjunction with the cross-cutting consideration of staff development.

5.4 Recruiting and retaining participants: recruitment refers to the process of choosing eligible individuals from the target population, informing them about the intervention, inviting them to take part, enrolling them and ensuring that they begin the intervention (e.g. attend the first session). Participants should be recruited from the defined target population in a methodologically correct and ethical way. Retention refers to the process of ensuring

that all participants remain in the intervention until it has finished and/or until the goals have been achieved (whichever is more appropriate). This is particularly relevant to interventions that need to engage participants over long periods of time. Barriers to participation should be identified and removed to ensure that participants can take part in the intervention and complete it.

5.5 Preparing programme materials: the materials that are required for implementation of a manualised intervention should be considered, including intervention materials (where appropriate), instruments for monitoring and evaluation, technical equipment and the physical environment (e.g. facilities). This allows the team to finalise the financial plan and take action to secure the necessary materials.

5.6 Providing an intervention or policy description: a written description provides a clear overview of the intervention or policy. It is produced so that interested stakeholders (e.g. target population, funders, other interested professionals) may obtain information before it starts and/or while it is ongoing. If the description is used in participant recruitment, particular emphasis must be put on the potential risks and benefits for participants. The intervention or policy description differs from the project plan (which is an internal tool to guide intervention implementation) and from the final report (which summarises the intervention or policy once it has finished).

| Step 6: Delivery and monitoring

At this stage, the plans developed earlier in the project cycle are put into practice. A particular issue at this point is the need to maintain a balance between fidelity (i.e. adhering to the project plan) and flexibility (i.e. responding to emerging new developments). The components outline

how this balance can be achieved by questioning the quality and progress of the implementation and making controlled modifications to improve the intervention.

6.1 If conducting a pilot intervention: in certain cases, for example if an intervention is newly developed or is to be scaled up from local to national implementation, it should be tested first by implementing it on a smaller scale. This helps identify potential practical issues and other weaknesses that did not emerge during the planning stage and that may be very costly to address once implementation is fully under way. A pilot intervention (or pilot study) is a small-scale trial of the intervention prior to the full implementation (e.g. with fewer participants and in only one or two locations). During the pilot intervention, process and (limited) outcome data are collected and used to perform a small-scale evaluation. Using the findings from the pilot, intervention developers can make final and inexpensive adjustments to the intervention before the actual implementation.

6.2 Implementing the intervention: once there is sufficient evidence to suggest that the intended substance prevention intervention will be effective, feasible and ethical, the intervention is implemented as outlined in the project plan. However, this does not mean that the project plan must be strictly adhered to if there is an obvious need for modifications. To facilitate later evaluations and reporting on the intervention, the implementation is documented in detail, including unexpected events, deviations and failures.

6.3 Monitoring the implementation: while the intervention is carried out, outcome and process data are collected and analysed periodically, for example with regard to the relevance of the intervention to participants, fidelity to the project plan and effectiveness. Actual implementation of the intervention and other aspects are compared with

the details set out in the project plan. Monitoring, i.e. incorporating regular reviews of the progress, also helps identify if there is a need to modify the original plan.

6.4 Adjusting the implementation: implementation needs to remain flexible so that it can respond to emerging problems, changed priorities, etc. Where necessary and possible, implementation of the intervention should be adjusted in line with the findings of the monitoring reviews. However, modifications must be well justified and their potential negative impact on the intervention or policy must be considered. Consequently, if adjustments are made, they must be documented and evaluated to understand what effect they had on participants and the final outcomes.

| Step 7: Final evaluations

After the intervention has been completed, final evaluations assess outcomes and/or the process of delivering and implementing the intervention or policy. In short, outcome evaluations focus on the behaviour change in participants (e.g. reduced substance use), whereas process evaluations focus on the inputs and outputs, i.e. whether or not the intervention was implemented as planned (e.g. the number of sessions delivered, the number of participants contacted and retained).

7.1 If conducting an outcome evaluation: as part of the outcome evaluation, outcome data are systematically collected and analysed to assess how effective the intervention was. All outcomes should be reported as defined in the planning phase (i.e. in line with the defined evaluation indicators). Depending on the scale of the intervention and the research design that was employed, statistical analyses should be performed to determine the effectiveness of the intervention in achieving the

defined goals. Where possible, a causal statement on the intervention's effectiveness should summarise the findings of the outcome evaluation.

7.2 If conducting a process evaluation: the process evaluation documents what happened during the implementation of the intervention. Moreover, it analyses the quality and usefulness of the intervention by considering its reach and coverage, the acceptance of the intervention by participants, the implementation fidelity and the use of resources. The findings of the process evaluation help to explain the findings of the outcome evaluation and highlight how the intervention can be improved in the future or why it fell short of expectations.

The findings of the outcome evaluation and the process evaluation must be interpreted together to gain a thorough understanding of the success of the intervention. This knowledge will inform the final stage of the project (Step 8).

| Step 8: Dissemination and improvement

In the final project stage, the future of the intervention or policy is a major concern: should it continue and, if so, how? Disseminating information about the intervention or policy can help to promote its continuation, but it also enables others to learn from the experience of implementing the intervention or policy.

8.1 Determining whether or not the intervention or policy should be sustained: ideally, a high-quality prevention intervention or policy can continue beyond its initial implementation and/or after external funding has stopped. Using the empirical evidence produced through monitoring and final evaluations (depending on what data are available), it is possible to decide if the programme

is worthy of continuation. If it is determined that the intervention should be sustained, appropriate steps and follow-up actions should be specified and carried out.

8.2 Disseminating information about the programme: dissemination can benefit the intervention in many ways, for example by gaining support from relevant stakeholders for its continuation or by improving the intervention through feedback. It also adds to the evidence base for substance use prevention, thus contributing to future substance use policy, practice and research. In order to give other providers the opportunity to replicate the intervention, intervention materials and other relevant information (e.g. costing information) should also be made available in as much detail as possible (depending on copyright requirements, etc.).

8.3 If producing a final report: the final report is an example of a dissemination product. It may be produced as a record of the implementation, as part of a funding agreement or simply to inform others about the intervention. The final report will often summarise the documentation produced during earlier project stages. It describes the scope and activities of the intervention and, where available, the findings of the final evaluations. As a final report is not always required and other means of dissemination may be more appropriate (e.g. oral presentations), this component is relevant only if a final report is produced.

| Tailored evidence-based programmes

As mentioned previously, the EDPQS focus on the 'how' of prevention work (i.e. meaningful implementation), while the UNODC International Standards on Drug Use Prevention focus on the 'what' (i.e. the content

of successful interventions or policies). In Europe, 'evidence-based' programmes may sometimes be viewed with suspicion, and prevention professionals can be wary of them, believing them to be too prescriptive and dismissive of professional experience. They may also prefer to work 'bottom-up', from the needs of their target population, instead of what they see as 'top-down' interventions.

Such locally grown and developed services or interventions are based on an understanding and the involvement of the local situation, resources, actors and mentalities. They tend to be less complex than manual-based interventions, in the sense that they tend to rely more on information provision, rather than on skills training or regulating, incentivising or limiting behaviour directly. They also require a very motivated and well-trained prevention workforce that is aware that prevention is something other than just educating individuals about risks, informing them about dangers, giving advice, using fear tactics or

organising substance awareness days or external lectures given by police officers and ex-users. In short, they require professionals to use techniques other than cognitive strategies to change behaviours. It can be a challenge to resolve these tensions and this is why the EUPC is needed.

There are many reasons for implementing an evidence-based intervention or policy, but there can also be ideological and contextual barriers that inhibit their use. These are presented in Table 8.

However, the two concepts of manualised evidence-based interventions and locally relevant experience are not mutually exclusive and can be combined, as the experience with Communities That Care (CTC) in some European countries has shown ⁽¹¹⁾. This system allows communities to first analyse their specific needs and problem profile objectively and then choose the most suitable intervention(s) that address their particular situation.

TABLE 8

Barriers and advantages to implementing evidence-based interventions

Barriers to implementing evidence-based interventions	Advantages to implementing evidence-based interventions
Often appears to go against conventional wisdom	Gives target groups and populations the best interventions, techniques and policies that are available
Challenges cultural and religious beliefs with regard to parenting, family structure, gender roles, etc.	Offers the possibility of delivering services in a more effective and efficient way
Requires new skills and specialised training	Provides a more rational basis to make policy decisions
Delivery challenge to maintain fidelity of implementation while adapting to the specific needs of the target group and population	Provides a common language
Limited availability of resources	Gives the opportunity to develop a common concept for the evaluation of scientific research
Requires monitoring and assessments	Forms a new basis for education and training, offers the possibility of achieving continuity and more uniformity of service delivery, and provides more clarification on missing links and shortcomings in our current scientific knowledge

⁽¹¹⁾ <http://www.ctc-network.eu/>

In this curriculum, we discuss both bottom-up approaches and existing evidence-based programmes, because we strongly believe that these two approaches do not necessarily have to contradict each other. The combination of both approaches can be a win-win situation. The EDPQS, which allow for a bottom-up approach, assure that the implementation process is of high quality, while the UNODC International Standards, in which evidence-based interventions are listed, help you to select a high-quality prevention intervention to implement.

| Balance between adaptation and fidelity

As we build the intervention, we need to consider tailoring intervention messages to match the participants' needs and characteristics. Such tailoring increases the likelihood that the participants will view the intervention as relevant, become engaged with it and achieve the desired outcomes. Tailoring includes addressing cultural beliefs, values, language, social context and visual images, but does not mean altering the theoretical foundation of the intervention.

As most of the evidence-based prevention interventions or policies have been developed in different western countries, there may be a need to adjust the intervention or policy to the national, regional or local context. However, it is important to remember, particularly for evidence-based interventions, to maintain the intent of the programme by maintaining the core intervention principles. This represents a balance between fidelity — the delivery of a prevention intervention as prescribed or designed by those who developed the intervention — and adaptation — the modification of the intervention content to accommodate the needs of a specific consumer or target group.

Why is it important to be concerned about the balance between fidelity and adaptation? Some reasons are obvious. For example, if the intervention is in English and delivered in English but the target group does not contain native English speakers, the content will not be understood. Other reasons are not so obvious, such as if the programme is evaluated among a white or western population and the target group is neither white nor western, there may be conflicts in beliefs, values and perhaps norms (Castro et al., 2004; Castro et al., 2010). Examples of some of the issues that need to be considered when adapting programmes are illustrated in Table 9.

The EMCDDA published a thematic paper that examined if North American prevention programmes can be implemented in European cultures and contexts (EMCDDA, 2013b). It describes specifics for the GBG, Strengthening Families programme and CTC.

Some pointers are outlined in the EDPQS Toolkit 4 (Brotherhood et al., 2015) and described in an article by Van der Kreeft and colleagues (2014).

- Change capacity before changing the intervention. It may be easier to change the programme, but changing local capacity to deliver it as it was designed is a safer choice.
- Consult with the intervention developer to determine what experience and/or advice they have about adapting the intervention to a particular setting or circumstance.
- Retain core components. There is a greater likelihood of effectiveness when an intervention retains the core component(s) of the original intervention. Core components are features of the intervention that are identified as prompting a behavioural change mechanism and are thus the reason why an

TABLE 9

Examples of issues that may have a negative impact on the adaptation of prevention programmes

	Programme assessment characteristics	New target group	Consequences
Language	English	Other	Inability to understand programme content
Ethnicity	White	Other	Conflicts in beliefs, values and/or norms
Urban/rural	Urban	Rural	Logistical and environmental barriers affecting participation
Risk factor number and severity	Few factors/moderate severity	Several factors/high severity	Insufficient effect on multiple or most severe risk factors
Family stability	Stable family systems	Unstable family systems	Limited compliance
Community consultation	Consulted with community on programme design and/or administration	Not consulted	No community 'buy-in', resistance, low participation rates
Community readiness	Moderate	Low	Absence of infrastructure and organisations to address substance abuse problems and to implement programmes

Source: Castro et. al., 2004

intervention works. A core component of the European Drug Addiction Prevention (EU-Dap) Unplugged programme ⁽¹²⁾ was 'reacting to peer pressure'. This core component could not be left out in the adaptation process.

- Be consistent with evidence-based principles. There is a greater likelihood of success if an adaptation does not violate an established evidence-based prevention principle.
- Add rather than subtract. It is safer to add to an intervention than to modify or subtract from it.

⁽¹²⁾ The term 'programme' is used when we speak about specific manual-based interventions. The term 'intervention' is more general.

Your role as a prevention professional is to discuss how to adapt an evidence-based intervention without losing its impact (see Table 10). Discussions with your colleagues during training or at your workplace will help to clarify how best to make necessary adaptations for your society.

TABLE 10

Adaptation versus adaptation with fidelity

Adaptation	Adaptation with fidelity
To be acceptable to the target audience, evidence-based interventions must be culturally appropriate addressing language, customs, expectations and norms	Core elements of the evidence-based intervention must be maintained to ensure the effectiveness of the intervention, while addressing the community's needs

4

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CHAPTER 4

Monitoring and evaluation

Evaluation is a type of research that provides a systematic way of assessing the short- and long-term outcomes of a prevention intervention and the factors that are related to these outcomes. Evaluations can be conducted over the course of the intervention development, from the planning stages and early development to implementation and follow-up after the intervention is complete. In reality, all prevention intervention stages should be evaluated, because you can obtain valuable information that will improve your work and help you to decide whether or not to continue the intervention.

In this chapter, you will learn about the primary purposes of an evaluation: to measure the impact and outcomes, to see which populations and population segments responded and which did not, to compare costs with benefits and to compare the effectiveness of one intervention with another. Monitoring and evaluation are important steps in the EDPQS project cycle, as will be discussed in this chapter.

It is not the aim of this chapter to provide you with the skills required to conduct your own evaluation or research project. Instead it will introduce you to some of the key relevant concepts. This will improve your understanding of prevention research articles and reports, and thus you can begin to think about how you might approach an evaluation of your own work or what kind of things to keep in mind if you decide to approach external teams of researchers to conduct an evaluation on your behalf.

There are several strong research designs that are used in evaluations. We will look at the definitions, as well as the advantages and disadvantages, of some of the most popular of these approaches: the randomised controlled trial (RCT), the interrupted time series design and the one-group pre-post test design (see 'Examples of common evaluation designs' below).

We will look briefly at other components of evaluation, e.g. sampling and outcome measurements, to see how the population is defined and selected and the measures developed to assess their attitudes, beliefs, intentions and behaviours related to substance use. Furthermore, both quantitative and qualitative measures are likely to be needed in any evaluation. The quantitative measures primarily deal with objective numbers of things, such as levels of use, while qualitative measures deal with the subjective aspects and address the 'why?' and 'what does it mean?' types of questions. Lastly, we will look at data collection methods and data analysis, to give you a better appreciation of their importance in evaluation reporting.

Although we do not expect recipients of this training curriculum to undertake evaluation, this chapter also includes a short description of *ex ante* evaluations, which considers what outcomes are likely to be achieved before a programme starts. This will help trainees to better understand what resources are needed to implement a prevention programme and what types of analyses are

needed to generate the information to determine whether a programme has been successful or not.

For the interested reader, a number of additional evaluation resources are recommended. The EMCDDA has published the Prevention and Evaluation Resources Kit (PERK) ⁽¹³⁾ and *Guidelines for the evaluation of drug prevention: a manual for programme planners and evaluators* ⁽¹⁴⁾. In addition, the UNODC has produced a guide to evaluating targeted youth substance abuse prevention programmes ⁽¹⁵⁾. For more advanced reading, the Society for Prevention Research has published its *Standards of efficacy, effectiveness, and scale-up research in prevention science* ⁽¹⁶⁾. Finally, the RE-AIM (reach, effectiveness, adoption, implementation and maintenance) framework provides an approach to evaluation that expands assessment of interventions beyond efficacy to multiple criteria that may better identify the translatability and impact of interventions ⁽¹⁷⁾. However, this is recommended only for advanced learners with a high level of familiarity with evaluation research and close links to researchers.

Evaluation and research

Studies of human behaviour include a range of research questions and approaches that include aetiological research involving genetics and neuroscience as well

as the associated attitudes, beliefs and behaviours that contribute to the disease. Research is defined as ‘a systematic investigation ... designed to develop or contribute to generalisable knowledge’. As discussed at the beginning of this chapter, evaluation is a type of research, which is defined as a systematic or structured way of assessing the short- and long-term desired outcomes of a prevention intervention and the factors that are related to those outcomes.

There are a number of reasons for conducting an evaluation. These include understanding the following.

- Impact or outcomes. Did the intervention achieve the intended outcomes and were they significantly greater than if no intervention had been delivered at all?
- Unintended consequences of the intervention. Ensuring that prevention interventions do not harm recipients is a key ethical priority.
- Reach. Did the intervention differentially engage everyone who participated or only certain groups? Did the intervention produce the same outcomes for everyone who participated or only certain groups? Were the outcomes for boys similar to those for girls, for example?
- Costs. To what extent did the benefits accrued because of the intervention outweigh the costs of the intervention itself?
- Comparison. Was the intervention more effective than others, in terms of outcomes, taking into account the costs involved?

Evaluations can be conducted over the course of an intervention lifecycle, from the planning stages and early development to delivery, reflection and assessment of impact (Figure 13). They are useful techniques for better understanding not only new prevention interventions but

⁽¹³⁾ http://www.emcdda.europa.eu/publications/perk_en

⁽¹⁴⁾ http://www.emcdda.europa.eu/publications/manuals/prevention_update_en

⁽¹⁵⁾ <http://www.unodc.org/unodc/en/prevention/monitoring-and-evaluation.html>

⁽¹⁶⁾ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4579256/>

⁽¹⁷⁾ <http://www.re-aim.org/>

also those with longer histories of implementation, such as interventions being delivered by mainstream services, which may be considered stable and mature. Evaluations can also be valuable even when the intervention is no longer being delivered, as they can assess some of the long-term impacts of the intervention. So, ideally, all prevention intervention stages should be evaluated.

For example, the evaluation of a new prevention intervention would require first making sure that the components of the intervention — content, structure and delivery — are associated with their intended effect. For example, do lessons on decision-making actually improve participants' decision-making skills? Is it possible to deliver the lesson on decision-making within a school class period of 40 minutes? Are the delivery formats, such as interactive techniques used to deliver the lesson on decision-making, effective or are other ways more appropriate? These types of evaluations, called efficacy evaluations, efficacy studies or efficacy trials, ask the question: is the intervention achieving its objectives under controlled conditions? Evaluating the intervention at this stage will contribute to revisions and improvements that can be made to further develop the intervention before full-scale implementation (Figure 14).

An evaluation of a stable and mature prevention intervention that is delivered close to or in 'real-world'

FIGURE 13
Points in time for evaluation

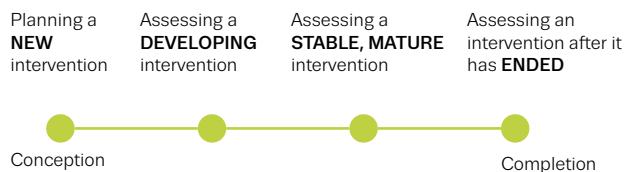
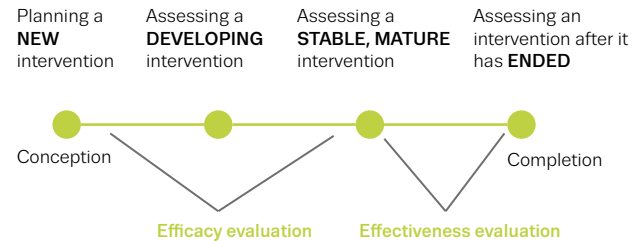


FIGURE 14
Different types of evaluation



conditions is called an effectiveness evaluation or effectiveness trial. The evaluation findings from these types of studies can be used to monitor the intervention and provide feedback on short-term outcomes immediately or within a few months after the implementation. Evaluation can help highlight successful delivery and areas warranting improvement. Longer-term outcomes can also be assessed, with follow-up periods lasting anything from 6 months to several years after the intervention. For substance use, a follow-up would generally extend into mid- to late adolescence.

At the end of the prevention intervention, evaluation helps to assess the value of the intervention, as well as document lessons learned for the future. In this phase, an evaluation can assess the adoption and sustainability of the intervention. This is a time when unexpected outcomes can also be assessed.

For prevention professionals, effectiveness studies of interventions in 'real-world' conditions are of primary interest. They provide data on the outcomes of the intervention and also address the questions: for whom was the intervention most effective and under what delivery conditions?

Evaluation system and research designs

The overall intent of an evaluation is not only to understand what was done during the intervention, but also to determine if the intervention did what it was supposed to do. These evaluations address various questions.

- Did the prevention intervention/policy achieve its short-term outcome? For example, are children's perceptions of risk moving in the right direction? Are parents utilising appropriate monitoring skills? Are new mothers responsive to the needs of their newborns?
- Did the intervention/policy achieve its intended effect(s) for the target population that received the intervention? Were there differential responses from each subgroup — gender, ethnic group, substance use or socioeconomic status? Did the intervention reduce or produce inequalities in the outcomes of some groups compared with others?
- What intervention/policy characteristics were associated with the outcomes that were achieved? Were they due to changed attitudes and beliefs? Were they a combination of changed attitudes and competency skills?
- To what extent was fidelity of delivery associated with positive/negative outcomes?

Therefore, before conducting an evaluation, it is important to clarify certain factors.

- What are the research questions? What is the purpose of the evaluation? Is it to see why a programme is effective? Is it to determine whether or not to sustain the evaluation? Is it to satisfy a funder?
- What is going to be evaluated? What are the outcomes?

- Who would be interested in the evaluation outcomes and why? Is this something that a local government would want to know? Is there interest in replicating the programme across the rest of the region or even the country?
- What is your timeline? Is it realistic and do you have the funds and other resources to meet this? If you are interested in substance use as an outcome of a school-based intervention delivered to 12-year-olds, but you also know that the usual age of initiation for most participants is 16 years of age, an evaluation would have to follow these children over 4 to 5 years to see if the desired outcome (preventing or reducing initiation) is achieved. You would also need to consider if you can easily track participants for such a long period of time. If your participant group has left statutory education by the time you want to follow them up, how are you going to recontact them to undertake the assessment?
- How will the results be summarised and reported? Who will have access to these results? What kind of information and what level of detail will be fed back to participants and other stakeholders? How will you ensure that evaluation results are not used to disadvantage any of your participants?
- What resources are available for the evaluation? What level of experience and expertise is available? How much will it cost? How much time will the evaluation take?

An evaluation should be seen as an integrated system that includes two major components: process evaluation (monitoring) and outcome evaluation.

The purpose of a process evaluation is to characterise the processes through which an intervention or policy is implemented. It focuses on inputs and outputs of the intervention, quantifying the dosage of the intervention, the implementation fidelity and its ability to affect change.

Importantly, it is a way of monitoring what is happening, to be sure the intervention or policy is implemented as intended, not only according to a manual or guidelines but also according to the strategic prevention plan. As a monitoring approach, this is a very important administrative tool for any service provider to use.

A process evaluation or monitoring asks several questions.

- What did we do?
- How much did we do?
- Who participated?
- Who implemented the intervention/policy components?
- Was the intervention/policy implemented as intended and, if so, why?

As prevention professionals, you will need to play a major role in emphasising the importance of evaluation. It is wise to collaborate with a research institution on framing and developing the evaluation design, as it can advise on a good research set-up and guide you through the statistics. The primary components of the design include research questions, the type of research design needed, the target population, selection criteria for the population, measures that relate to the evaluation questions, data collection methods and analysis.

The purpose of an outcome evaluation is to characterise the extent to which knowledge, attitudes, behaviours and practices (often thought of as short- and intermediate-term outcomes) have changed for those individuals or entities who received the intervention or who were targeted by the policy compared with those who did not receive the intervention or were not policy targets. Long-term outcomes relate to the desired end product of the intervention, such as the reduction or elimination of substance use.

A full monitoring and evaluation system should include both process and outcome evaluation components to document both implementation or intervention inputs and outputs, as well as short-, intermediate- and long-term outcomes. Please note that process evaluation or monitoring is very important, even when an outcome evaluation is not planned, as it documents the delivery of the prevention intervention. Any new prevention intervention should be monitored to determine what is going on during the intervention, who is being reached and how much of the prevention intervention was received.

Research or evaluation design components

What do we mean by a research design? In general, a research design is a roadmap, guide or plan for investigating a research question or hypothesis. The design of a study is defined by the research questions or hypotheses being addressed. The study type, the type of population being studied, sampling, etc., are all dependent on very clear research questions or hypotheses.

- Research questions. Probably the most important step in developing a research design is developing clear research questions. As a prevention professional, you may be concerned with knowing and documenting if the prevention intervention that your organisation is delivering is actually reaching the target group and having the intended effects. In addition, you may want to determine if the intervention can be delivered to different target groups and generate the same effects. The questions of reach and outcome effects will guide the planning of an evaluation.

- Study type. Once there is agreement on the research questions, the next component of the design is to decide on the study type, for example whether it will be descriptive, experimental or quasi-experimental, and whether it will be cross-sectional, longitudinal or a case study.
- Study population. Who will be included in the study population? Which age groups will be included? Which gender? Will these be only people living in households or will people who do not have stable housing or are in a secure setting or hospital also be included? These guidelines are called inclusion criteria. But we also need to consider who will not be included in the study. Sometimes the study is limited to people with a high standard of literacy or people who can comprehend the research questions that are being asked. These requirements are called exclusion criteria.
- Selection criteria and sampling. Once a study population is decided upon, how will people be selected for the study? Will all of the people meeting the inclusion and exclusion criteria be included in the study or will it be necessary to take a smaller subset of the larger group? The subset is called a sample. However, it is important that this sample be representative of the larger group. There are several methods of sampling that have been developed to ensure representativeness.
- Measures. It is important to translate research questions into variables, constructs or words, also termed 'attributes', that can be measured. As an example of turning attributes into measures, we can break down marital status simply into married or not married, or we might prefer a more detailed classification. Issues such as validity must be considered when deciding on the measures: do these measures really represent what we want to know?
- Data collection. Once the measures are determined, it needs to be decided how these measures or data will

be collected. Sometimes these measures or data have already been collected in written form. Examples of this are forms we all complete to get our driving licence or those that may be completed by others, such as hospital staff in an emergency department, or by police officers. There are a number of methods of collecting data from the study population directly. We can ask individuals for data using a standard format, such as a questionnaire or survey. These data collection forms can be completed in person, over the phone, by post or on the internet, increasingly through smartphone and tablet apps. Careful consideration must be given to issues of anonymity and confidentiality, as well as truthfulness and reliability of responses.

- Data analysis. Finally, the research design includes a plan for analysing the collected data. How can we pull all of the data together to begin answering the original research questions?

| Types of research design

There are many types of research designs reported in the literature, but only a few of these are used most frequently in evaluations of prevention interventions. None are perfect, not even the 'gold standard' classical experimental design (e.g. RCTs). All have advantages and disadvantages. Some are more applicable in certain situations than others.

| Quality issues to consider when assessing evaluation findings

When considering the findings of an evaluation and the types of conclusions that can be drawn from them, there are a number of factors that need to be considered,

irrespective of the research design. They also need to be considered when designing an evaluation.

Validity

In all evaluations, the major concerns are related to the validity of the results. What does validity mean? In the case of an evaluation, validity means that the effects that were found were the result of the intervention. But there are two types of validity that need to be taken into account.

- Internal validity: are the findings really the result of participation or exposure to the intervention or are they the result of something else?
- External validity: are the findings of the evaluation of the prevention intervention applicable to other situations and to other populations? In other words, if the prevention intervention was found to be effective with North American children, is it also applicable to children from Europe?

You can see how important these issues are. It is one thing to find that the intervention was effective for middle-class adolescents but that does not mean that it will be effective for adolescents living in poverty.

Internal validity

There are a number of threats to the internal validity of a research evaluation.

- Maturation: the impact of the passage of time.
- History: another aspect of the passage of time; what has happened before or in the meantime.
- Sample selection: if the evaluation researcher cannot deliver the intervention to everyone in a group, they need to select a smaller group, or a study sample, that represents the larger group. This means that the smaller group has to reflect the primary characteristics of the

larger group so that the findings can be applied to them.

- Attrition (or dropout): the term refers to study participants who leave the study or may be lost to follow-up.
- Measurement instruments: there is some evidence that subjects can learn from just answering the evaluation questions.

External validity

External validity means that the findings from the evaluation of the prevention intervention can be generalised (or applied) to other situations and populations.

- Generalisability: are the findings applicable to the larger population that the evaluation sample was taken from?
- Transferability: are the findings likely to be replicated by other people who are interested in delivering the intervention?
- Intervention setting or delivery: these can include the intervention conditions, as well as the time of day or year, location, lighting and noise associated with the intervention.
- Pre-/post-test effects: there is a learning effect that occurs just by experiencing the pre- or post-test.
- Another threat to validity is what is termed 'reactivity to the research' or 'reactivity to the intervention'. This is when a participant's awareness that they are taking part in an intervention as part of a research study affects how they respond to the intervention (e.g. deliberately trying to 'succeed' or 'fail') or how they answer research instruments such as questionnaires. Related terms include placebo effect (when an intervention has a positive effect on outcomes only because the recipients believe it does); novelty effects (when people tend to respond better to the initial introduction of an intervention because it is novel and

different from what is usually delivered, not because it is more effective); and Hawthorne effects (when people modify their usual behaviour because they know they are part of a research study or are being monitored by intervention staff).

Control or comparison group.

What we want to see in any evaluation is that the intervention was found to have a strong association between participation in the intervention and the outcome of interest: in our case, substance use. To make sure that it is the intervention that is the ‘cause’ of the outcome, it is important to make sure that other factors did not play a role. Such factors include those mentioned above, such as maturity, history, etc. How do we achieve that? By including a group of individuals that does not receive the intervention but is similar to the group that participated in the intervention. This group is called the control or comparison group.

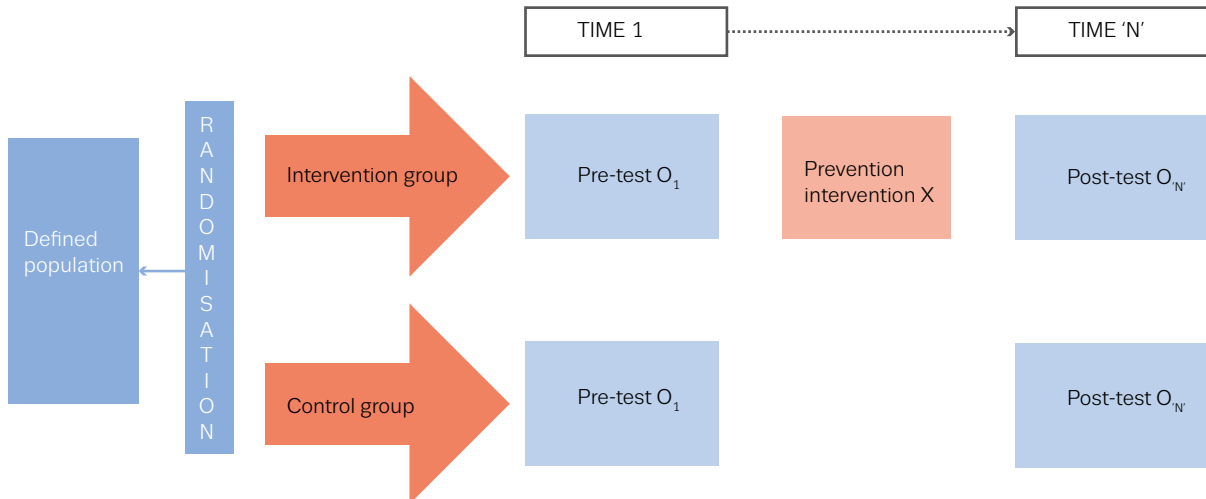
The control group is also called ‘treatment as usual’ or ‘conditions as usual’. In other words, the control group represents what would happen to the intervention group if it did not receive the intervention. ‘Treatment as usual’ can refer to receiving no intervention at all or to usual practice. An example of this is when a new school-based prevention curriculum is compared with the general health and social lessons that students usually receive. This is the essence of a strong research design.

Examples of common evaluation designs

There are several good research designs that are used to evaluate the effectiveness of prevention interventions. Each has its own advantages and disadvantages.

The classical experimental design is more commonly known as the RCT (Figure 15). These are considered the

FIGURE 15
The classical experimental design or RCT



most rigorous of research designs and are frequently used in clinical research, as well as in high-quality prevention research. The key elements of this design are:

- appropriate outcome measures;
- selection of a non-exposure/participant group (control group) that has the same characteristics as those participating in the intervention;
- random allocation of participants to the intervention and control groups;
- data collected before intervention participation and at several points after intervention participation for those receiving the intervention and at similar time periods for those not receiving the intervention;
- clear understanding of exposure/participation in the intervention;
- sufficient and appropriate time after participation in the intervention for outcome measures (e.g. for the onset of substance use at age 16).

An RCT has strengths and weaknesses.

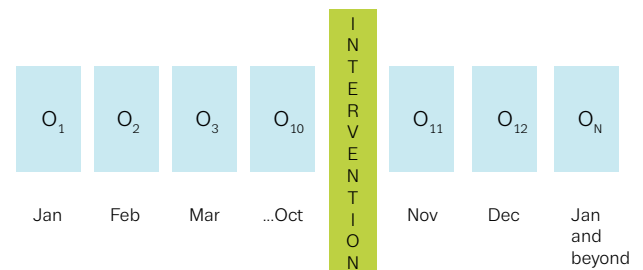
- It helps to demonstrate cause and effect relationships between delivery of a prevention programme and outcomes.
- The research team can assign or withhold an intervention in a precise way.
- It reduces some types of biases through random allocation of participants to the intervention and control groups.
- It often requires a large sample studied over a long period of time, so it can be very expensive and take a long time to generate results.
- Results may not mimic the 'real-world' conditions of delivery in routine practice.
- There may still be some hidden differences between the groups studied that are not accounted for by the randomisation process.

- It does not always answer important questions, such as 'what works?', 'for whom?' and 'under what circumstances?'. You will need other types of study design (e.g. qualitative studies) to obtain this type of understanding.

Interrupted time series design

An alternative design used when it is difficult to develop a comparison or control group is the interrupted time series design (Figure 16). In this design, up to 100 measurements are made prior to and after the intervention for the target population. This type of design has been used successfully for examining the introduction of environmental prevention interventions. For example, a government might decide to introduce a new tax on alcohol. It is not possible in this case to allocate a target group (i.e. members of the public) to receive the intervention or not, as would be the case with an RCT, as all alcohol products are affected. However, the interrupted time series design allows the researcher to study what happened to trends in the outcomes of interest before and after the introduction of the new tax.

FIGURE 16
Interrupted time series



Interrupted time series have strengths and weaknesses.

- They are relatively easy to conduct where data are already being routinely collected (e.g. crime reports, hospital admissions).
- Good analyses can rule out pre-existing and seasonal trends that existed before the introduction of the intervention (e.g. increased alcohol use during school holidays) or changes in the wider population (e.g. a long-term trend regarding decreased alcohol intake among the general population).
- They cannot account for, but cannot completely rule out, the possibility that other factors that occurred at the same time as the intervention were responsible for the findings.
- It can take a long time to obtain enough data to conduct the analysis.
- Results are sometimes difficult to interpret when the outcome of interest rarely occurs before an intervention is implemented.

One-group pre-post test design

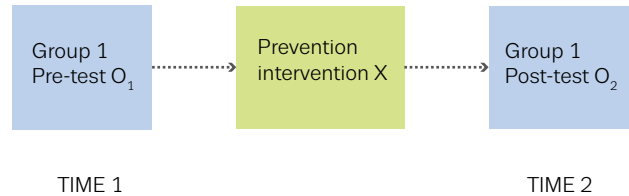
The one-group pre-post test design (sometimes called the 'within groups' design) is the most commonly found design in evaluation research (Figure 17). Prior to the prevention intervention, data are collected from the target group, the target group receives the intervention and then data similar to those collected prior to the intervention are collected. The data collection after the intervention can span from immediately after the intervention to up to 1 year after the intervention.

A one-group pre-post test design has strengths and weaknesses.

- It is quick and convenient to complete, costs little and can be incorporated into routine monitoring activities of a prevention organisation.

FIGURE 17

One-group pre-post test design



- Simple tools such as surveys can be used to collect all the data.
- It can be used to describe what happens to a particular group when they receive an intervention.
- It cannot be used to demonstrate cause and effect relationships.
- It can show only short-term changes.
- It does not rule out any alternative explanations for any changes observed.

Sampling and measurement

Sampling is a common procedure used in research and helps to extend information collected from a smaller subgroup to the larger population of which it is a part. Researchers adopt the method of sampling when resources are constrained in terms of time, money or staff.

The sampling process includes several steps.

- Population definition and description. What are the population's characteristics? What is the gender breakdown? How many are male? How many are female? We may also want to know whether they live in cities, suburbs or rural areas.

- Accessing the population. The reality is that you may not be able to reach everyone, so the next question is: what population can I have access to? Generally, if you are conducting a national survey, it may be limited to people living in households or those who have computers with access to the internet.
- Inclusion/exclusion criteria. Define who will be in your study and sample and who will not be included in the sample within the same population.

When we talk about measurement, we are concerned about the reliability and validity of the measurement. How stable are the measurements when repeated over time? That represents consistency or reliability. Are we measuring what we want to measure? That represents validity. Fortunately, the field of substance use prevention has developed instruments for assessing the effectiveness of prevention interventions that have been used in many different situations and for many different populations. The EMCDDA has published details of many of these in its Evaluation Instruments Bank ⁽¹⁸⁾.

As mentioned earlier, there are two types of data that you will want to collect: quantitative and qualitative. There are many definitions of these types of data. Some examples are provided below.

Quantitative data generally:

- provide measures of quantity, e.g. 'how many persons aged 12 to 17 used cannabis/marijuana/hashish in the past 30 days?' or, for those that have used cannabis in the past 30 days, 'on average, how many times in the past 30 days did they use cannabis?';
- measure levels of behaviour and trends over time;

- are objective, standardised and analysed through specialised statistical techniques and, as they are standardised, they can be collected across communities and groups.

Qualitative measures generally:

- are subjective and address the 'why?' and 'what does it mean?' types of questions;
- provide insights into behaviour, trends and perceptions;
- are more explanatory and help to interpret quantitative data.

| Data collection, analysis and statistics

Once the measures are collected, they need to be transformed into data and into a form that allows further examination or analysis. Data analysis allows the evaluator to systematically describe the study population and to begin to answer the research questions that formed the basis of the evaluation. This process of description and further analysis is assisted by the use of statistical methods.

Descriptive statistics are used to describe, show and summarise data you have collected in a meaningful way, such as the average (mean) age or gender distribution. Data are often presented using a combination of tables, graphical descriptions (e.g. bar charts) and statistical commentary (e.g. a discussion of the results explaining what they might mean). Descriptive statistics are also used to summarise substance use in populations of interest. The ESPAD report is a good example of informative and meaningful descriptive statistics ⁽¹⁹⁾.

⁽¹⁸⁾ <http://www.emcdda.europa.eu/eib>

⁽¹⁹⁾ www.espad.org

Inferential statistics are more complex than descriptive statistics and use data gathered from a small sample to make conclusions about the larger population from which the sample was drawn. Inferential statistics are valuable when examining all members of an entire population is not convenient or possible. These types of statistics allow you to do things such as predict the likelihood of observed outcomes or determine whether differences found within and across populations occurred by chance or not. Inferential statistical approaches are very important in any prevention evaluation study. However, because of the complexity of the work, we would advise that you work with a statistician from a research institution, such as a university, when undertaking these analyses. Below is some advice on how to collaborate with them.

Working with an evaluation researcher — the collaborative model

In the traditional approach, the external evaluator is independent of the intervention (e.g. a specialised university department) and makes decisions regarding all aspects of the evaluation, apart from those regarding the intervention staff. Interaction between intervention staff and the evaluation team is generally kept to the essential and minimal to avoid bias.

In contrast, collaborative evaluation is developed with input from the intervention staff, and the evaluator works with the intervention staff throughout the evaluation.

A collaborative approach involves the intervention staff and the evaluation staff forming a team. Other members of the team under a collaborative model may include stakeholders with an interest in the outcomes of the prevention intervention. However, it is important that the team's roles, activities, responsibilities and interactions are well defined, or there will inevitably be expectations that are not fulfilled. In particular, it is critical to establish regular meetings with key stakeholders to review progress and address problems as they arise, otherwise the evaluator and intervention staff will drift apart. Table 11 shows how roles can be taken up by both parties, utilising their expertise in doing so.

The external evaluator needs to provide services that are good value for money and must have relevant experience and the skills needed to conduct an evaluation. In addition, the evaluator should have an understanding of development and organisational issues, experience in evaluating projects, interventions or organisations, a good track record with previous clients and a history of publications of evaluation results.

An external evaluator should also be committed to high standards of research and practice and be able to work to strict deadlines. They also need to communicate well with intervention staff and stakeholders and embrace the delivery organisation's values and ethical standards.

TABLE 11
Roles for the programme staff and the external evaluator

Evaluation step	Programme staff	External evaluator
1. Engage stakeholders	Lead role Know your stakeholders well and who should be engaged in the evaluation	Support role Demonstrate an interest in engaging stakeholders and engage them effectively
2. Describe prevention intervention	Shared role Share knowledge of the prevention intervention	Shared role Engage programme staff to describe the prevention intervention. Take a lead role in describing the intervention
3. Focus the evaluation	Shared role Identify the most important evaluation questions	Shared role Focus the evaluation and help develop good evaluation questions and develop the evaluation design
4. Gather credible evidence	Support role Help to gain access to existing data or in soliciting participation in new data collection activities	Lead role Take a lead role in all data collection activities but do so alongside programme staff
5. Justify conclusions	Shared role Help the evaluator interpret evidence and develop recommendations	Shared role Take a lead role in all data analysis activities working with programme staff
6. Ensure use and share lessons learned	Lead role Ensure that the results are used to inform the programme	Support role Present evaluation results that promote use

Source: Centers for Disease Control and Prevention, 2010

Using registries of prevention programmes

Most of the time, we do not need to invent a new prevention programme; instead, we try to work with existing effective programmes. So how do you find substance use prevention interventions that do work? Fortunately, there are several registries that have collected evidence-based interventions in the substance use prevention field. These registries identify interventions with a strong empirical or evidentiary base, and the best of them have a searchable

database, so you can enter key terms related to both the interventions and the searcher's interest.

However, registries do have problems, so care should be taken when sifting through the interventions they present. The criteria used for including an intervention under a registry may not meet the quality of the UNODC International Standards. Registries may rely on whatever evidence of effectiveness is submitted by the individual or organisation that has asked for the review. As a result, the evidence reviewed may not include the results of evaluations that have not yielded evidence of

effectiveness, and the published assessments may also not incorporate new evidence that becomes available. Registries also vary in how they present evidence. Despite this, they remain a major source of information, listing many evaluated prevention interventions with descriptions of content and delivery.

There are registries that you may want to consult as you try to find the right prevention intervention for your target population and the problems they face with regard to substance use. For Europe, these include Xchange⁽²⁰⁾, the 'Green List' in Germany⁽²¹⁾, the Spanish registry⁽²²⁾ and the registry by Mentor UK⁽²³⁾. For the US, these include Blueprints for Healthy Child Development⁽²⁴⁾ and *Preventing Drug Use among Children and Adolescents*⁽²⁵⁾.

Xchange is a new European online registry of evidence-based prevention programmes. All prevention programmes that are included address substance-use-related problems. The Xchange registry takes into account both European evaluation studies that show beneficial outcomes relating to substance use and the Blueprint ratings, for programmes of US origin. This registry provides information on the effectiveness of prevention programmes in Europe and more details on local adaptations in national languages. All this information together contributes to informed decision-making by its users.

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

⁽²¹⁾ <http://www.gruene-liste-praevention.de/nano.cms/datenbank/information>

⁽²²⁾ <http://prevencionbasadaenlaevidencia.net>

⁽²³⁾ <http://cayt.mentor-adepis.org/cayt-database/>

⁽²⁴⁾ <https://www.blueprintsprograms.org>

⁽²⁵⁾ https://www.drugabuse.gov/sites/default/files/preventingdruguse_2.pdf

The criteria for a programme to be included in this registry are:

- it must be active (currently used in at least one EU country);
- it must be judged beneficial in Europe by at least one European evaluation study.

Another way to consult research on prevention work is to consult scientific journals, e.g. *Prevention Science*⁽²⁶⁾. Publishing research is a key aspect of modern prevention. Scientific journals can help you find more recent publications, as it can take some time for registries to incorporate information from new studies.

| Ex ante evaluations

In contrast with research-based interventions, which take place during and after the delivery of a prevention intervention, an *ex ante* evaluation is a project management tool performed prior to implementation and designed to help project planning and evaluation planning. The results of *ex ante* evaluations are often used to optimise the project plan and to determine the relevance of the intended actions in meeting substance-related needs compared with other approaches that may be taken. The *ex ante* evaluation also provides important information that serves as a basis for monitoring and evaluation and that helps define objectives and identify which outcomes are important, the impact that might be expected from programme delivery and the type of information that is needed to assess whether or not the project was successful. Decision-makers and funders sometimes use

⁽²⁶⁾ <http://www.preventionresearch.org/prevention-science-journal/>

Key information requirements for *ex ante* evaluation

- Problem analysis and needs assessment
 - What is the problem to be solved, what are the main factors and who are the stakeholders involved?
 - What is the target group and what are its substance-related needs?
- Objective setting
 - Have the general, specific and operational objectives of the prevention intervention been defined in terms of expected results?
 - What evaluation indicators are planned for measuring inputs, outputs, results and impacts?
- Alternative delivery mechanisms and risk assessment
 - What alternative preventive actions were considered (including doing nothing) and why was the proposed one chosen?
 - What risks (e.g. opportunity costs, potential adverse outcomes) are involved in the implementation of the intervention and what countermeasures have been taken?
- Added value of the intervention
 - Is the proposed intervention complementary to and coherent with other associated actions?
- Does it produce synergies with them?
- Lessons from the past
 - What evidence and information from previous evaluations, audits or study results/experiences of similar actions are available?
 - How can these be applied to improve the design of the intervention?
- Planning future monitoring and evaluation
 - Are the proposed methods for collecting, storing and analysing the monitoring system/evaluation data robust?
 - Is the monitoring system/evaluation fully operational from the outset of intervention implementation?
 - What types of evaluations are needed, when should they be carried out and who should do this?
- Helping to achieve cost-effectiveness
 - What are the different cost implications of the proposed intervention option?
 - Could the same results be achieved at a lower cost or could better results be achieved with the same cost by doing something else?

the findings of *ex ante* evaluations to judge the value of proposals that they have received from external prevention providers.

The work may be undertaken internally or, as with other types of evaluation, additional expertise may be sought from an external evaluator. The European Commission has provided

general principles and helpful guidance for understanding and undertaking this type of work, although the guide does not directly concern *ex ante* evaluations of prevention programmes⁽²⁷⁾. The key information requirements of this type of evaluation approach are summarised in the box below.

⁽²⁷⁾ http://ec.europa.eu/smart-regulation/evaluation/docs/ex_ante_guide_2001_en.pdf



PART II

Prevention approaches in different settings

CHAPTER 5

Family-based prevention

CHAPTER 6

School-based and workplace-based prevention

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CHAPTER 8

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CHAPTER 5

Family-based prevention

The family is just one of the (micro-level) settings for prevention. The focus here is on the types of family-based interventions that exist, together with the general content and specifics of these interventions.

Different evidence-based programmes for family-based prevention are presented as examples in this chapter, such as EFFEKT, the Functional Family Therapy programme and Triple P — Positive Parenting Program. We conclude with a discussion of the challenges of working with families and how to overcome these.

Definitions

'Family' means different things to different people and can therefore be defined in different ways. Different groups of scholars, such as anthropologists, sociologists, psychologists and economists, may define and study families differently. People from different countries or cultures may also define family differently. For example, in the US, Canada and many European countries, 'family' is most commonly defined as the 'nuclear family', meaning two partners and their children, single-parent families or coexisting parenthood ('blended' families). In other parts of the world, 'family' is often defined as extended family

that includes grandparents, aunts, uncles, cousins and extended kin. The high rates of divorce and remarriage in Europe over recent decades have contributed to an increase in the number of 'blended' families and single-parent families.

Families as systems

One way in which scholars think about family structures is by thinking of families as systems, meaning that a family is something different from just a group of people who may live together. Families are unique groups of individuals in many ways and are different from peer groups or other social groups. Unlike most social groups, families usually contain members that are related by blood lineage and strong social bonds. Because of the closeness of the relations and the specific tasks of families, they create distinct patterns of interactions, which define them.

There are some common ways in which most families interact, but there are also many ways in which families are different from each other. Just as no two individuals are exactly alike, so no two families have the same way of relating to each other. Families will develop their own identity and their own way of behaving with each other and with people who are not part of their family. Family members will often say things to each other and do things

with each other that they would never say to or do with people outside their family.

Families can provide social support to their members and a sense of belonging. This feeling of belonging is important to our human development and helps us to become resilient people, with less chance of developing behavioural problems. The ways in which families structure themselves — the attitudes, beliefs and values they support — will define their identity and influence how family members interact with others and how they expect others to interact with them.

Socialisation of the child is a very important family function. The family is generally the context in which children learn their group's norms, values, attitudes and behaviours. Family generally provides the primary context for socialisation, as it is within the family that children learn important things such as how to talk, appropriate ways to interact with others and how to share and manage frustrations. Parents instil these rules through various forms of teaching, nurturing and discipline.

| Types of family-based interventions

Family-based interventions, like other preventive interventions, can be defined as universal, selective or indicated.

Family-based prevention interventions have also been characterised based on who in the family attends and which parts of the family the intervention is designed to change.

Parenting interventions focus only on changing specific parenting practices, such as discipline and effective communication, and may involve only parents. Children in the family may or may not attend the intervention.

Family skills interventions are generally broader in scope and involve training parents to improve and strengthen their parenting skills and training children in personal or social skills; they also involve direct training and skills practice for the family as a whole. The emphasis here extends beyond parenting to how the parents and children in the family influence each other and function together as a family.

Family skills interventions are sometimes delivered in combination with other interventions (e.g. a school-based intervention in the same community) as part of a wider, more comprehensive prevention strategy. This strategy is often implemented at a societal level because of the many different macro- and micro-factors that influence youth substance use. Some evidence suggests that a combination of approaches can be effective in reducing substance use in the population.

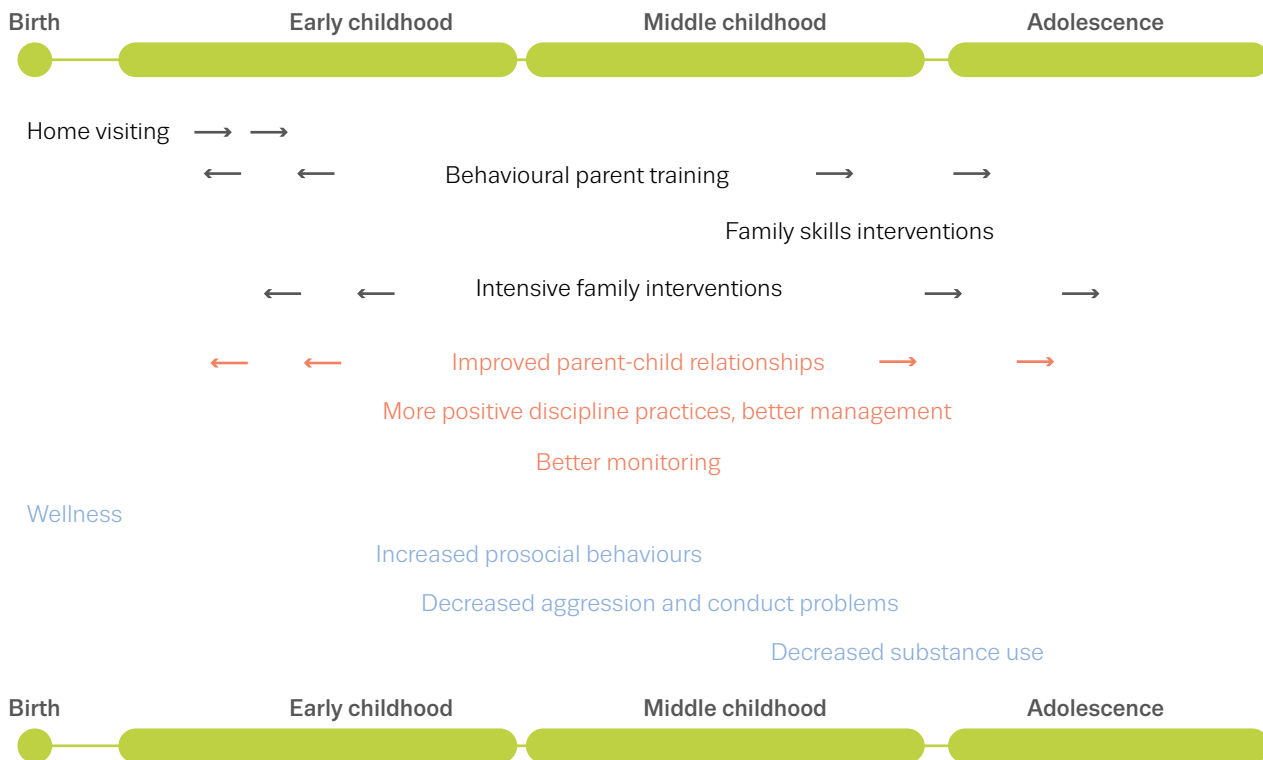
Some interventions are designed to be intensive family therapy interventions that will change early problem behaviours so that problems do not escalate to substance use and more serious problem behaviours. There may be different signs that a family may benefit from intervention. Sometimes these are reflected in aspects of family life, such as violence, or sometimes they are reflected in youth behaviour outside the family setting, such as at school or in the community. Intensive family interventions, such as family therapy interventions for young people who have already started to show signs of some problems, can also have significant effects in childhood and adolescence.

Parenting strategies and patterns of family interactions will be different as children in the family reach different ages. Therefore, interventions for families with children at different ages have to include teaching about different parenting and family processes. The outcomes of family programmes are also related to the period of development. Outcomes early in the life course will be related to health, well-being and prosocial behaviours. In late childhood and adolescence, additional effects include the reduction or prevention of problem behaviours, such as substance use.

Figure 18 shows effective strategies (black), targets of change (red) and positive outcomes (blue) for interventions delivered from birth to adolescence.

The theory underpinning family-based interventions is that, by influencing family processes such as parenting, the interventions will promote healthy youth behaviour and prevent the development of problem behaviour. The family is one of the most important micro-level influences on an individual's personal characteristics that can ultimately

FIGURE 18
Family-based prevention interventions according to developmental stages



lead them to substance use. The family is an important context for development and, when a family is functioning poorly, children are more likely to have problems. When families are functioning well, however, they can decrease the likelihood of problems. Family-focused intervention strategies can start prior to birth, for example home visiting programmes for poor, first-time pregnant mothers. These kinds of intervention focus on changing parenting behaviours, improving the well-being of mothers, improving the mother-child relationship and improving long-term developmental outcomes for young people.

Some of the most important family factors that influence child and youth development are the following.

- Good parent-child relationships. The quality of parent-child relationships starts in infancy, when caregivers and infants create a strong attachment bond, and remains an important influence on development through adolescence. Although some qualities of the relationship change over time, when the relationship is characterised by warmth and positive emotional support, it tends to protect young people from problem behaviours. Parents who share time and are actively and positively involved in their child's life help build these kinds of relationships. Behavioural parent-training interventions can yield better parenting practices, healthier parent-child relationships, more positive and less negative behaviour from children or adolescents, and longer-term outcomes such as decreased substance use in adolescence and young adulthood.
- Effective behavioural management strategies. Socialising positive youth behaviour and responding appropriately to risky youth behaviours are important parts of a parent's job. The purpose of using effective strategies is so that parents can help young people follow and internalise appropriate standards of

behaviour. There are lots of parenting strategies that are used to assist with this process, but employing effective discipline — discipline that is clear and firm but not harsh (an 'authoritative' but not 'authoritarian' or harsh approach) — communicating clear rules and expectations, and using techniques to monitor where and with whom the child spends time can also protect young people from negative macro-level influences.

- Communicating pro-family values. Families that hold pro-family values and try to communicate these clearly to their children help promote positive behaviour and reduce risky behaviours. This can counteract strong negative values that may be evident in some social environments.
- Staying involved in a child's life. Parents who are actively involved in their children's lives, by spending time with them in positive and fun activities, help build a positive parent-child relationship. These kinds of activities communicate to the child that the parent cares about the child's social, emotional and personal well-being and that their relationship is not entirely about behaviour management, such as following rules.
- Parents who are emotionally, cognitively and financially supportive provide a multitude of resources for healthy child development.

If we can strengthen some of these critical family factors by implementing an intervention, then we might be able to reduce behaviours such as substance use.

One of the challenges with some family-focused interventions is that they intervene at an age when very few families are doing the kinds of things that the intervention is actually trying to prevent. That is to say, an intervention may aim to change parenting in the short term but prevent substance use in the long term. Again, the

rationale is that changing family and parenting processes will change youth development.

The question being asked is 'What are the core features of an intervention that works?'. One study identified several important characteristics of effective parental skills training interventions for parents of children aged 0 to 7 years that were related to better outcomes. They found that interventions had better outcomes when they:

- focused on positive interactions between parents and children — i.e. when they taught parents about spending time with their children in non-disciplinary situations, like playtime, showing them how to show enthusiasm and provide positive attention, and focusing on activities that are creative and free-flowing;
- taught parents about emotions and communicating with regard to emotions, such as how to use active listening skills to reflect back what the child is saying, helping parents to teach children how to recognise, label and appropriately express emotions and teaching parents to reduce negative communication such as sarcasm;
- taught effective discipline in the form of using 'time out' and responding consistently;
- were structured so that parents could practise the above-mentioned skills with their own children in the sessions and at home. These were not role plays but real interactions between parents and their children.

General content of family-based interventions

Family-based prevention interventions entail more than what is described above. We will see in depth how you

can shape the content of your intervention specifically for parents, children and the family in general.

Parent content

Different family skills interventions have different kinds of activities, but the UNODC review panel found that the most effective family skills interventions include a number of specific things.

Effective interventions teach parents to be responsive and how to respond appropriately to their children's needs and requests.

Parents should be taught to display affection and empathy for each other, their children and other people. They should:

- use positive attention and let children know when they are behaving well — not just when they are breaking the rules;
- talk about both their own emotions and their children's emotions to help children recognise and express emotions;
- be taught the importance of modelling appropriate behaviour — if parents do not want children and adolescents to use drugs, then they should model that behaviour;
- learn new coping and anger management skills to deal with the inevitability of stress and change in the family and their broader social environment;
- learn to play responsively — that is, let their children have some control and direct the play while they follow along;
- have expectations that are appropriate to the age and developmental level of their children (see Annex 2).

Additional content and activities should teach parents to provide structure. Structure means a lot of things, but may include:

- teaching parents to use age-appropriate discipline strategies, especially helping them to teach their children about the consequences of their behaviour;
- establishing and communicating clear rules for the home and helping their children to understand the rules and values of society;
- recognising how to protect children from possible problem situations within the family and in society (which may be the neighbourhood or also the media);
- trying to reach agreement on core child-rearing issues in families where there is more than one parent and putting those into practice;
- parents knowing how to effectively monitor where their children are, who they are with and what they are doing;
- managing conflicts, solving arguments and practising forgiveness — this will create a warm and open emotional atmosphere for the family and help keep children out of arguments between parents;
- specific routines, such as eating meals together and bedtime routines, which can be made fun and create opportunities to talk with your children, without lecturing them, about important topics you value.

Good interventions may also teach parents to be involved in their child's school life. Next to the family, school is one of the most important socialising structures for a child. Some parents are reluctant to interact with school, but research shows that, when parents help their children form strong bonds at school, the children have better school experiences. Ways to achieve this include:

- parents monitoring and helping their children with school work when possible;
- parents staying connected with school and knowing what is happening at their child's school.

| Child content

There are many important life skills that children and young people need to learn, and parents can be taught to teach those skills to their children.

One set of skills that interventions can help children develop is emotional capabilities. Interventions also help parents reinforce these skills by:

- recognising their own emotions and those of others;
- expressing their emotions appropriately;
- managing difficult emotions;
- feeling and showing empathy for others when they are suffering;
- being able to receive feedback about themselves without being defensive — this is a good way for them to learn about themselves and their relationships.

Another useful skill for young people to develop is an orientation towards the future. Children, particularly adolescents, who are able to think about the future have a positive view of it and are able to set realistic goals and understand how some kinds of behaviours, such as substance use, may prevent them from reaching their goals.

Children and young people can develop effective problem-solving skills that will help them when they get into challenging social situations with peers and need to find the best solution to the problem.

Children and young people can also learn about how to take care of themselves in a healthy way — including nutrition, physical health and how using substances will affect their brains, physical development, behaviour, emotions, cognitive development, social life with friends and family, school performance and future opportunities.

Effective interventions should teach young people how to interact positively with other people, such as taking turns and working together. This can help them begin to understand how they fit into the larger picture of the world, how relationships can be good for them and how to stay away from bad relationships.

Interventions can also reinforce values, such as respect — respect for individual differences and respect for groups that are important in society, such as elders and authority.

Young people can learn to communicate effectively through active listening and by clearly expressing their own needs. Using these skills effectively can help diffuse conflict situations.

Many effective interventions focus on teaching young people peer pressure resistance skills so that they can deflect the overtures of some of their peers who will try to influence their decisions and engage them in substance use.

| Family content

In family skills interventions, it is important that families are able to practise skills together that will help them learn to respond, attend to and encourage each other in a positive and sensitive way using praise and rewards.

To communicate effectively, families can learn to listen carefully, communicate clearly about roles and responsibilities and calmly discuss topics that are often hard for parents and their children to discuss together, such as substance use and sexuality.

Families can also organise and structure their family life together, being clear, consistent and fair about discipline, solving the inevitable conflicts that come with family life through open discussion and other methods recommended by the intervention.

| Evidence-based programmes

The following interventions are found to have promising results, according to several evaluations in different European countries. The selection of these programmes is based on the ratings in the EMCDDA's Xchange registry. We include these as examples that might guide your own search for a suitable intervention for your context. Here we discuss EFFEKT, Functional Family Therapy and Triple.

EFFEKT is an intervention that has been rated as 'beneficial' in the Xchange registry. It is a universal prevention intervention for young people between 13 and 16 years old, which tries to prevent alcohol use among teenagers by changing the attitudes of their parents. Parents are encouraged to communicate zero-tolerance policies about alcohol use to their children. Information is disseminated to parents at school meetings at the beginning of each semester and through regular letters sent home throughout the middle-school year. Parents are also sent catalogues detailing organised activities

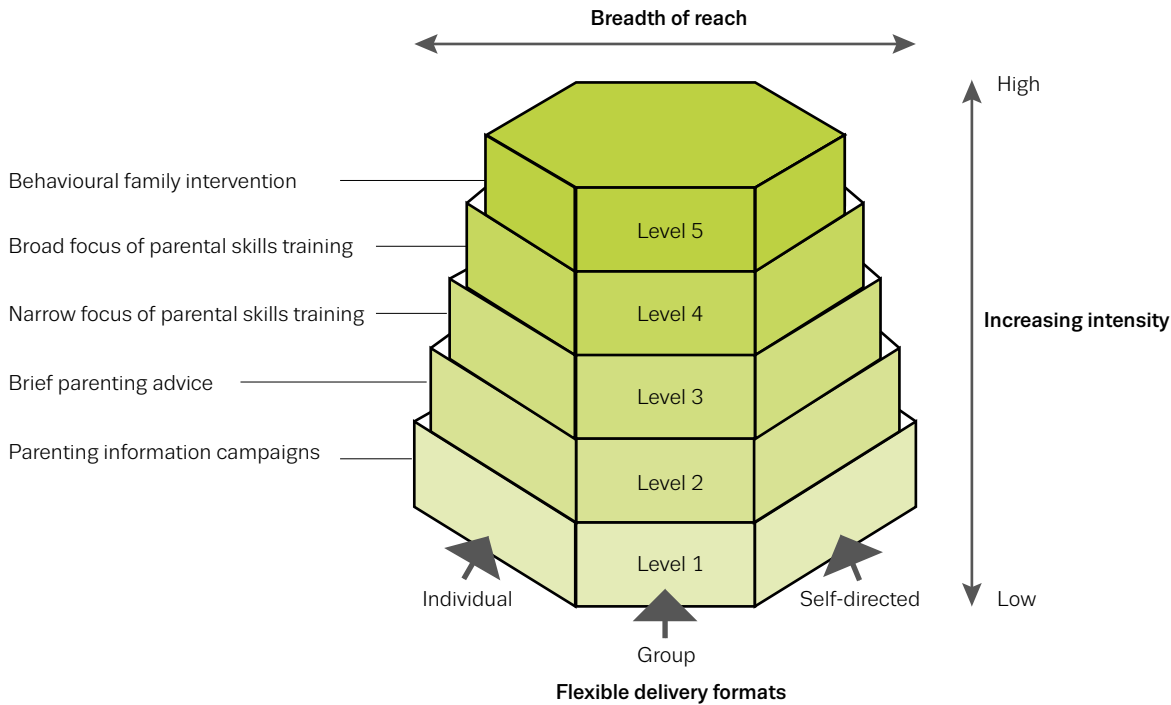
taking place in the community so that children have a constructive way to use their time.

The Functional Family Therapy programme is an indicated prevention intervention for at-risk young people between the ages of 11 and 18. It is rated as 'likely to be beneficial' in the Xchange registry. The programme aims to reduce involvement in crime or delinquency, to prevent use of substances and to maintain good relations between participants and parents. Parenting skills, youth compliance and the complete range of cognitive, emotional and behavioural domains are targeted for

change based on the specific risk and protective factor profile of each family.

The Triple P — Positive Parenting Program ⁽²⁸⁾ is a prevention-oriented parenting and family support strategy designed to prevent severe behavioural, emotional and developmental problems in children by enhancing the knowledge, skills and confidence of parents (Figure 19). Triple P is not yet included in Xchange, but another registry, Blueprints, rates it as 'promising'. Although there are multiple versions of the programme, five core positive parenting principles form the basis of the programme

FIGURE 19
Triple P



⁽²⁸⁾ For more information, see: <http://www.triplep.net/glo-en/home/>

and address specific risk and protective factors known to predict positive developmental and mental health outcomes in children. These core principles consist of (1) ensuring a safe and engaging environment, (2) creating a positive learning environment, (3) using assertive discipline, (4) having realistic expectations and (5) taking care of oneself as a parent.

Another programme commonly used is the Strengthening Families Programme 10-14. This programme has very good evidence of effectiveness in the US, with Blueprints rating it as 'promising', but as yet there is not good evidence for effective implementation in Europe so Xchange does not currently rate it as an effective programme.

Challenges

There are many challenges and barriers to organisations and families taking up these types of interventions. Some of these challenges are in simply implementing the intervention, but many of the challenges are in implementing it widely enough to have a significant effect. We will describe some of the challenges and give some advice on how to overcome them.

The biggest barriers to effective implementation of family-focused prevention interventions, especially universal and selective family interventions, are recruiting and retaining families. Research shows that family-based interventions typically have low rates of participation. When recruiting for universal interventions, rates are often between 10 % and 30 % of eligible families. Interventions that are targeted, such as indicated interventions for families of young people already showing some problem behaviours, can achieve higher rates: between 40 % and

60 %. However, we also know that participation rates can be lower among disadvantaged families. Low rates may mean that the intervention does not have sufficient reach to influence public health.

Research has identified some of the most common barriers to participating in the kinds of typical group-format family interventions.

- Parents do not know about the intervention. Information about the intervention may not be getting to families who may need such an intervention.
- How families think and feel about the programme will also influence whether or not they come to the intervention.
- Families are very busy and have lots of demands on their time. Being able to come to an intervention that might be 2 or 3 hours one night a week may be hard for some families to manage with their busy schedules.
- Sometimes interventions are delivered in locations that make it hard for families to get to the intervention. They may not have transport or may have to travel a long way.

Strategies can be developed to overcome these challenges (see Figures 20-22).

Strategies will be different for each community because of the resources they have available, but, generally, there are good ways to communicate information about the intervention.

One very good way is to get the media involved. When possible, organisations can work to get stories about the intervention into the newspaper or on the radio. Social media sites have also been effective in getting the word out in some communities. Triple P has used this very effectively to increase awareness that the programme is being implemented. One study found that, when these

FIGURE 20
Barriers for families 1

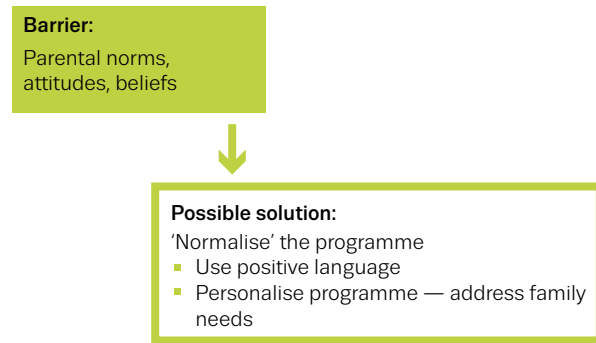


kinds of media strategies were used, up to 80 % of parents in the community had heard of the intervention.

Using your personal and professional network to help get the word out is also a great strategy. Building on your connections to other organisations that serve young people and families to help inform families is also useful. Families feel more comfortable if a referral comes from a source they trust.

Sometimes parents share the view that the intervention is just for 'bad' parents, or they have a perception that their family would not benefit from intervention because it is not needed, or they may have had negative prior experiences with service providers, making it less likely that they want to come to another intervention. It is important to make sure that you use positive language and 'normalise' what the intervention does in your communication with families. The way you describe the intervention in the brochures and in the media can help shape families' views on whether the intervention will be right for them or not.

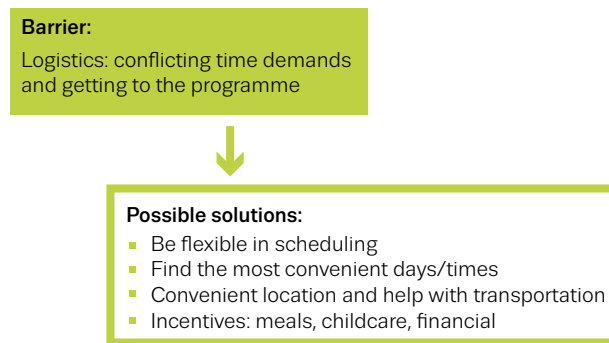
FIGURE 21
Barriers for families 2



Sometimes parents may not see the need for an intervention and think that it will not be very beneficial for them. Being able to communicate to families how the intervention addresses their specific needs can increase the acceptability of the intervention. Sometimes this is done with well-written advertisements that highlight specific points of the intervention. But sometimes it can be more helpful to discuss the intervention with families directly, by either visiting them in their homes or providing group formats where they can learn more about what the intervention provides.

Some of the most common barriers expressed by families are simply the logistical challenges of fitting a 2-hour family intervention session into a busy family schedule. Scheduling the sessions to suit the highest number of families possible will help keep attendance up. It is important to be flexible when planning a time to hold the sessions so that parents can work the sessions into their family schedule. Using natural meeting times, such as around school events such as parents evenings, as is done in the EFFEKT programme described above, can help

FIGURE 22
Barriers for families 3



accommodate busy schedules. But it is important to be respectful of positive family time, which is, after all, one of the things these interventions are trying to promote.

Finding a convenient location and helping with transport will facilitate better attendance. Strategically selecting a site that people already visit frequently would be ideal. Ideally, it should be close to family homes but, in large cities or more rural areas, this may not be possible, and transport can be a problem. Some interventions will help pay for transport to the intervention.

Incentives for participation can be helpful in motivating families to come and can also help overcome other logistical barriers. For example, providing an evening meal and childcare for families can make it easier for parents to organise their families and get to sessions that are held at night. It is useful to consult with local experts to find out what kind of incentives might be most useful.

Recruiting families is not a simple task of announcing the intervention and then waiting for families to come. Thinking

carefully about what the families are like, what they need and how they are connected to each other and to other social environments, such as schools, neighbourhoods and services, can help you create a clear plan for recruiting and retaining families. For example, if families are of a low socioeconomic status, then maybe financial incentives will be useful. Creating strong, respectful relationships with families who might be interested in the intervention, sustaining contact with families even if they do not come at first and keeping promises can build trust with families and improve the intervention's reputation within society to help recruit families. Using several different strategies, rather than relying on only one, will also prove to be more effective. Use multiple messages, delivered in multiple ways at multiple times. Interventions often recommend that you get the message out to families in at least three different ways, because it may take that many times to catch their attention.

6

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CHAPTER 6

School-based and workplace-based prevention

Other settings for prevention work include school and the workplace, both micro-level settings. We begin with looking at the characteristics of school-based prevention interventions and their objectives, and also how to apply theory to practice. For school-based prevention, we emphasise the use of student data when working on an intervention. Unplugged, the GBG and KiVa are evidence-based programmes presented here as effective interventions for school-based prevention.

Unfortunately, there are not many existing workplace prevention interventions in Europe, and even fewer are evidence based. Hopefully, this chapter can provide some inspiration for people engaging in workplace-based prevention. We outline the characteristics of workplace-based prevention work and discuss the barriers that you might encounter.

School-based prevention

For children and adolescents, the two prime sites for substance use prevention are the family and school. Indeed, many children are likely to spend more time at school than with both parents, or even one parent. An advantage of schools (Table 12) is that interventions can be delivered to all children (a universal population) and not just to those who are in a high-risk group (a selective population) or who are vulnerable individuals (an indicated population). All children can potentially benefit from universal interventions in schools, since all of them face some degree of risk. Furthermore, messages delivered to all children within schools can be delivered without stigmatising recipients, as the intervention does not rely on identifying and potentially isolating young people who have already begun to use substances. Indeed, placing such high-risk children together in a group has been shown to increase their risky behaviour (Poulin and Dishion, 2001).

TABLE 12

Types and efficacy of school-based prevention interventions

Intervention	Level of risk targeted	Indication of efficacy
Prevention education based on personal and social skills and social influence	Universal and selective General population and groups at risk	*** Good
School policy and culture	Universal General population	** Adequate
Addressing individual psychological vulnerabilities	Indicated Individual at risk	** Adequate

Schools come in all shapes, sizes and configurations, but, in almost every country, schools help to prepare young people to become fully integrated members of their families, of workplaces and of society as a whole. However, schools and education accomplish much more than this. A 2007 World Bank policy report (Hanushek and Wößmann, 2007) found through analyses of educational data and national economies that 'There is strong evidence that the cognitive skills of the population — rather than mere school attainment — are powerfully related to individual earnings, to the distribution of income, and to economic growth'. Cognitive skills address students' ability to:

- think for themselves and address problems in a reasoned and carefully considered fashion, both alone and in collaboration with others;
- reason, conceptualise and solve problems using unfamiliar information or new procedures;
- draw conclusions and come up with solutions by analysing the relationships among given problems, issues or conditions.

School, like the family, is one of the micro-level environments that serves as a key institution in shaping children's development and their prosocial attitudes and behaviour. There are many complex interactions among the biological, personal, social and environmental characteristics that affect human behaviour. These interactions shape the values, beliefs, attitudes and behaviours of children and young people and are particularly important to the physical, emotional and social development from childhood to adolescence and from adolescence to adulthood. The school can influence how children and young people perceive the acceptability and unacceptability of various positive and negative behaviours. Consequently, school interventions can

affect an individual's vulnerability to and risk of specific behaviours and substance use in particular.

School-based prevention can be of interest to a university or other further and higher education settings. These students are often particularly at risk of using substances. This is because they have moved from the family home to an environment where they have greater independence and are expected to have control over a range of social and health-related behaviours. In addition, in the school environment, certain substances may become available for use, and a substance-using culture can be present in student organisations and events.

While it is particularly important to create and maintain a positive school climate, schools also play an important role in substance use prevention in at least three additional areas:

- behavioural approaches — preventing or at least delaying young people's substance use by attempting to instil values, norms, beliefs and attitudes against substance use and by giving them the skills to cope effectively with peers who may invite them to use substances;
- environmental prevention — developing reasonable, clear and consistently enforced policies targeting the use and sale of all substances, including alcohol and tobacco, on and near school grounds and at all school-sponsored events;
- reducing the adverse consequences associated with use — treating substance-using students sensitively and compassionately by referring them to appropriate counselling and support services (including treatment if necessary) and by helping them reduce or stop the use of substances.

Prevention science researching school-based prevention interventions has also shown success in producing academic achievement and preventing educational dropout (Gasper, 2011), two major academic goals. Therefore, prevention coordinators have to be able to make the case that it is in the best interests of schools as well as their students to make time for substance use prevention.

| School readiness

To begin with, school readiness to adopt and implement substance use prevention programmes and strategies should be assessed (Greenberg et al., 2005). Here are some key questions to consider. All of these factors should be assessed prior to selecting a prevention approach.

- Is there administrative support to make room for substance use prevention programming during the school timetable?
- Is there human capital with the required skills available to implement the programmes?
- What about resources to pay for materials related to programming, teacher training, substitute teachers to cover classrooms during the training and follow-up technical assistance?
- Is there high-quality training and technical assistance available to guide school personnel in implementing prevention programmes successfully and in responding to challenges as they arise?

It is important that the administration of the school and the appropriate educational authorities provide both support for a particular programme and the leadership necessary to ensure its effective adoption and implementation (Sloboda et al., 2014; Wandersman et al., 2008). However, many other factors should also be in place. The school should have articulated a vision of what kind of

environment it seeks in order to support the educational and social development of its students. This vision should be accompanied by related goals, one of which should be to ensure that the school environment is free of alcohol, tobacco products and other substances.

Plans are needed to clarify the roles and responsibilities for implementing prevention policies and interventions, how performance will be evaluated and how the evaluation will be linked to professional advancement. The plan should include an assessment of the school's ability to implement the intervention.

| School prevention objectives

Effective substance use prevention strategies are designed to address the different development stages of children, adolescents and other students (Ginsburg, 1982; UNODC, 2013). As outlined in the UNODC International Standards, not all school-based prevention activities and programmes will be effective for the whole school-age population, so interventions must be implemented with only those age groups for which there is evidence of effectiveness.

For example, for children in middle childhood, substance use prevention strategies should be relatively simple and focus on the delivery of simple, straightforward instructions — e.g. doctors give you medicine when you are sick to make you well; medicine can be bad for you if you take it without a doctor telling you to; giving medicine to others is dangerous, even if they ask for it. Teachers can also implement strategies designed to reward prosocial behaviour and punish impulsive or otherwise inappropriate behaviour.

With guidance, early adolescents can develop positive values and attitudes that do not support substance use

and on which they can base their decisions on whether or not to use substances. Students can familiarise themselves with their school's policies concerning psychoactive substances and the consequences of infractions. They can understand how advertising attempts to influence them to use alcohol and other substances, and they can learn about the adverse consequences of alcohol, tobacco and other substance use on feelings, perceptions and behavioural health and their developing brains. They should also continue to develop and practise a range of age-related personal and social skills.

For later adolescence, students should be able to use their values, decision-making skills and various life skills — particularly their assertiveness or 'resistance' skills — in situations where substances are used or where they may be invited to use substances. They should also learn about social sanctions related to illicit substance use. Finally, they can be taught a variety of strategies to reduce the adverse effects of substance use (Marlatt et al., 2011). As we have seen, these may stress the dangers of drinking and driving or riding with a driver who has been drinking.

Clearly, evidence-based prevention interventions must be carefully matched to the development stage of the children if they are to be effective. Prevention science is thus built on child development and how best to reach children at each stage of development.

| Student substance use data

Student substance use data are helpful to understand the extent of substance use and the nature of use, including the types of psychoactive substances used by students. Earlier chapters in this curriculum have discussed conducting needs assessments, which involve collecting

and/or analysing existing data to describe the substance use problem. Needs assessments to describe student substance use include data on the types of substances being used, the frequency of their use and the mode of administration; sources of substances being used; characteristics of those using substances, including gender, age, ethnicity, neighbourhood, truancy, and physical and emotional health; and the age of first use, as well as the first substance used.

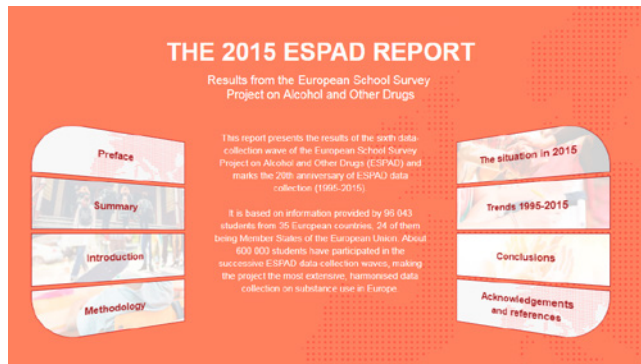
Student surveys conducted in the school setting are generally considered to be the best overall method for collecting data on student substance use. These data form the core of data collection efforts that may include other types of qualitative and quantitative data. Although conducting surveys with students is relatively inexpensive and provides the best information on current patterns of substance use and on related perceptions, these surveys can be challenging to develop, administer and score, and the data may be difficult to analyse and interpret.

Schools may also choose to use the results of surveys that have been conducted by other organisations. In this regard, we particularly recommend the ESPAD ⁽²⁹⁾ (see Figure 23) and the WHO's collaborative cross-national survey on Health Behaviour in School-aged Children ⁽³⁰⁾. Some countries can rely on national surveys as well. Even though some of these surveys (and thus their results) may be dated, they can still provide useful benchmarks against which to compare the results of a locally conducted survey. They can also be used, with great care, as a proxy for a school's own survey, particularly if the findings are broken down by region or (perhaps) population density (i.e. urban versus suburban versus rural). However, local data are almost always more useful to local policy-makers and decision-makers than data

⁽²⁹⁾ <http://www.espad.org/>

⁽³⁰⁾ <http://www.hbsc.org/>

FIGURE 23
ESPAD report 2015



Source: <http://www.espad.org/>

from regional or national surveys. It is very easy for people to discount troubling results of a substance use survey conducted at national or regional level by saying it does not represent the children in 'our' community.

| Applying theory

Theories of cognition and learning and the TPB can be applied to school-based substance use prevention interventions. A school is not only a place of learning; it includes people — students and school staff — who interact throughout much of the day. So, like the home, where parents interact with their children in family prevention interventions, in school settings staff interact with students to deliver effective substance use prevention interventions. These interventions include classroom curricula, school policies and the school environment. School curricula have been found to be the most effective in producing long-term prevention outcomes and are discussed in this chapter. School policies and the school environment are discussed later, in Chapter 7.

A substance use prevention curriculum refers to a classroom-based intervention with a manual-based set of activities to meet specific learning objectives. Substance use prevention school policies refer to a set of written rules or regulations regarding substance use in the school and on school grounds. These rules include the definition of any infraction (what happens when someone breaks the rules) and the consequences of infractions. Finally, school climate is defined as the quality and character of school life. School climate is based on patterns of students', parents' and school personnel's experience of school life and reflects norms, goals, values, interpersonal relationships, teaching and learning practices and organisational structures.

Two decades of research and evaluation in schools demonstrate which interventions work and which are not supported by evidence (Table 13).

Furthermore, many prevention interventions show positive effects immediately after their conclusion, while fewer show effects, if assessed, at longer-term follow-ups, such as after 1 year. To what extent is this a problem? Clearly, it is desirable for effects to last years, rather than months (or even weeks), and, all other things being equal, it is always best to select interventions that have demonstrated long-term effects. However, even interventions that are limited to short-term effects can be considered successful if they delay the uptake or initiation of substances at key stages of development. Target groups may also benefit from repeated exposure to different types of prevention activities at different stages of development.

In addition, it has also been argued that it may be inappropriate to expect prevention programmes to have long-lasting effects when students are regularly exposed to enticements to use substances in their social environments (e.g. through representations in popular

TABLE 13

What works and does not work in school-based prevention

What works	What does not work
Delivery and structure	
Interactive methods Highly structured lessons and group work Follows a curriculum	Didactic methods such as lecturing Unstructured, spontaneous discussions Reliance on teachers' judgement and intuition
Delivered by a trained facilitator/teacher	Evidence for peer-led versus adult-led prevention programming is weak
Implemented via 10-15 weekly sessions	Any stand-alone, single event activities
Multi-component programmes	Evidence for the value of 'booster' sessions in successive years is weak Posters and pamphlets
Content	
Decision-making, communication and problem-solving skills	Increasing students' knowledge by providing facts concerning specific substances, which may simply make students more informed consumers
Peer relationships and personal and social skills	Ex-drug users providing testimonials can end up glamorising or sensationalising drug use
Self-efficacy and assertiveness	Focusing on building self-esteem only
Drug resistance skills and strengthening personal commitments against drug abuse	Random drug testing
Reinforcement of antidrug attitudes and norms	Scare tactics and frightening stories that exaggerate and misrepresent the dangers of substance use and often contradict students' own experiences and those of their peers
Support for study habits and academic achievement	

culture, advertising and other marketing practices) and see adults using and enjoying substances, such as alcohol and tobacco products, without obvious adverse effects. It may therefore be unreasonable to expect that a single intervention addressing substance use will be sufficient. Advocates for prevention should try to make the case that, in accordance with the EDPQS (Chapter 3), prevention activities should be part of a longer-term strategy, and they may be more likely to be successful where environmental prevention policies have also been implemented (see Chapter 7) to promote a healthier behavioural context.

Age- and developmentally appropriate substance use prevention interventions need to be integrated into the entire school context, from nursery to the end of secondary school, both within and outside the classroom.

Evidence-based programmes

The following interventions are found to have promising results according to several evaluations in different European countries. The selection of these programmes

is based on the ratings in the Xchange registry of the EMCDDA. We include these as inspiration for your own search for a suitable intervention in your context.

Unplugged is a school-based programme that incorporates components focusing on critical thinking, decision-making, problem-solving, creative thinking, effective communication, interpersonal relationship skills, self-awareness, empathy, coping with emotions and stress, normative beliefs and knowledge about the harmful health effects of substances. The curriculum consists of 12 one-hour units taught once a week by class teachers who previously attended a 2.5-day training course. The Xchange registry rates Unplugged as 'beneficial', meaning that it is likely to be effective across different contexts.

The GBG is a classroom-based behaviour management strategy for primary schools that teachers use along with a school's standard instructional curricula. The GBG is rated as 'likely to be beneficial' in Xchange, meaning that, although research has found it to be effective, more work needs to be undertaken in Europe to be sure. The GBG uses a classroom-wide game format with teams and rewards to socialise children to the role of student and reduce aggressive, disruptive classroom behaviour, which is a risk factor for adolescent and adult substance use, antisocial personality disorder, and violent and criminal behaviour. In GBG classrooms, the teacher assigns all children to teams, which are balanced with regard to gender, aggressive, disruptive behaviour and shy, socially isolated behaviour. Basic classroom rules of student behaviour are posted and reviewed. When the GBG is played, each team is rewarded if team members commit a total of four or fewer infractions of the classroom rules during game periods.

During the first weeks of the intervention, the GBG is played three times a week, for 10 minutes each time, during periods of the day when the classroom environment is less structured and the students work independently of the teacher. Game periods are increased in length and frequency at regular intervals; by mid-year the game may be played every day. Initially, the teacher announces the start of a game period and gives rewards at the conclusion of the game. Later, the teacher defers rewards until the end of the school day or week. Over time, GBG is played at different times of the day, during different activities and in different locations, so the game evolves from being highly predictable in timing and occurrence, with immediate reinforcement, to being unpredictable, with delayed reinforcement, so that children learn that good behaviour is expected at all times and in all places.

KiVa is an anti-bullying programme, which has had promising reviews in Finland and has been adopted in Estonia as well. This programme targets school children between the ages of 5 and 11 and uses universal and indicated strategies. It tries to enhance prosocial behaviour and emotional well-being. KiVa is not yet in the Xchange registry, but it is rated as 'promising' in the Blueprints registry, meaning that high-quality research has found it to be effective.

Workplace and prevention

In society, the 'workplace', or work setting, is the physical location where people work; that is, homes, farms, schools, government and non-government organisations, manufacturing plants and factories, shops and stores, healthcare organisations, the military, large companies,

etc. For some people, such as those working in the trade industries, transport or haulage, there may be no single physical workplace. In the experience of many industrialised nations, the workplace is one of the key institutions in society, as a significant percentage of adults are employed and participate in some type of work setting. In addition, work and work settings drive the economy and fuel economic growth. Substance use problems are highly relevant in industries where safety issues exist or where individual performance failings can have a significant impact. This includes, but is not limited to, the construction, farming, transport, power, information and communication technology, and financial services sectors (EMCDDA, 2017b, p. 143).

Work settings can also provide additional training and education to workers, continuing into adulthood what families and schools provide to children and young adults. Furthermore, work settings provide a venue for new experiences, new norms and new behaviours that may be different from those learned in the family or at school.

Because the workplace is typically where adults spend a significant amount of their time, the extent to which the work experience is rewarding and satisfying versus stressful or debilitating can have a tremendous impact on the health and well-being of the worker and, in turn, their susceptibility to substance use problems.

Frone (2013) also makes a distinction between workplace and workforce substance use and impairment.

- Workplace substance use and impairment refer to substance use and impairment that occur on the job or during work hours. This can mean the use of substances in the work setting or just before work, with impairment occurring during work hours and/or when the worker is on the job even if not in the work setting.

- Workforce substance use and impairment refer to substance use and impairment that occur outside the work setting and not during work hours.

Workplace factors may promote a climate that is more supportive of substance use at work. These include three main factors:

- the (perceived) availability of substances at work, including the ease of availability (e.g. alcohol available in a work canteen, alcohol regularly provided as part of workplace celebrations, employees who facilitate access to illicit substances);
- descriptive norms whereby a high proportion of an individual's workplace social network use, or work while impaired by, substances; and
- injunctive norms or normative approval or disapproval of workplace substance use and impairment by members of one's workplace social network.

This last factor also includes workplace cultures that promote the use of substances to enhance performance and manage busy workloads and schedules, or where substances are considered integral to relationship-building with colleagues and (potential) clients.

In addition to general risk factors for substance use that affect the whole population, employment-related stressors, such as a high level of work demands, lack of job control and job insecurity, may also increase the probability that an employee will use substances. According to this perspective, substances are used as tension and stress reduction techniques to help the employee cope with their employment situation. More frequent exposure to, and anticipation of, work stressors is thought to lead to more frequent and heavier use of substances, often just before, during or immediately following a workday. However, the majority of substance use problems are

related to workforce substance use, meaning that most substance use is off the job, although such behaviour can still negatively affect work performance. Negative effects of workforce substance use can include absenteeism, lateness, job loss, illness and higher medical costs. Workplace substance use can also lead to lower levels of perceived workplace safety, high work-related stress and lower morale among employees who do not use substances at work.

There are no EU-wide estimates for the impact of substance use on the workforce and no country-level estimates using consistent methodologies. Furthermore, the EMCDDA does not collect data on the extent of the provision of workplace-based prevention in the EU. However, illustrative studies from Member States are useful. For example, in the United Kingdom, it has been estimated that alcohol use results in 11-17 million working days lost, costing GBP 1.8 billion annually (Plant Work, 2006).

Workforce substance use is a particular concern in safety-critical roles, where employees have responsibilities for the health and well-being of others (e.g. pilots, doctors, safety technicians) and where impairments caused by substances or for other reasons can have serious consequences. In France, 15-20 % of work-related accidents in the French rail system have been directly linked to the harmful use of alcohol or other substances (Ricordel and Wenzek, 2008).

Organisational readiness

An element of the needs assessment is understanding where the workplace stands with respect to its own path to organisational change or willingness to adopt a particular health promotion practice — in this case, substance use prevention. There are a number of theories that have been developed to understand organisational change. For example, stage theory makes the point that it is important to know where an organisation is along the path of organisational change before implementing prevention policies and interventions.

Stage theory (Kaluzny and Hernandez, 1988) describes four stages that organisations go through before a change or innovation is adopted and institutionalised.

1. The first stage is awareness that there is a problem and that there are possible solutions to address the problem. Clearly, the goal of activities in this stage is to make the organisation aware that there is a problem to be addressed.
2. The second stage is adoption, during which an organisation begins planning for and adopting the policies and interventions designed to address the problem recognised in stage 1. It may involve the identification of resources and adaptations to interventions that may be implemented.
3. The third stage is implementation, which involves all the practical aspects of policy and intervention delivery.
4. Finally, the fourth stage is institutionalisation, during which a new policy or practice becomes a standard part of the workplace's activities.

Workplace prevention characteristics in relation to prevention forms

There are four aspects to consider as regards workplace-based prevention (Figure 24), which we will discuss in further detail here.

Universal prevention

- Workplace policies. Workplace policies are a universal prevention strategy because they generally address substance use issues for all employees.
- Substance use prevention education. Substance use prevention education is provided to all employees and management. This information should include information about psychoactive substances and how their use can negatively affect workers' health and well-being.
- Strengthening social support. By promoting workgroup cohesion and support among workers, you can increase workplace social norms against substance use.

Selective prevention

- Confidential screening. Confidential screening typically includes the screening of workers who are at risk of substance use and who may be exhibiting problem workplace behaviours.
- Employee assistance programmes. Employee assistance programmes are designed to help identify and resolve productivity problems affecting workers who are impaired by personal concerns.

Indicated prevention

- Confidential substance use assessments. The goal is to identify workers who require referral to

brief interventions or longer-term treatment. These assessments are conducted by trained mental health or addiction specialists.

- Brief interventions. Brief interventions are systematic, focused processes that aim to investigate potential substance use problems and motivate individuals to change their behaviour.

It is important when talking about workplace prevention to include policies and interventions that focus on workers who need treatment, complete treatment, return to work and are reintegrated into the workforce. While not technically prevention, this curriculum includes treatment, return to work and relapse prevention as a key part of a comprehensive workplace approach to substance use. The goal is not to be punitive but to prevent the onset and escalation of substance use and, when necessary, to

FIGURE 24

Types of workplace-based prevention

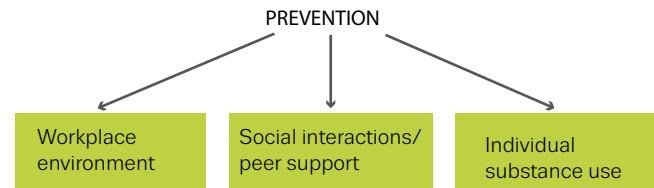


identify substance-using workers and provide a clear path to treatment and reintegration into the workforce. Once reintegrated into the workplaces, these workers will require ongoing support to prevent a relapse into substance use. The EMCDDA best practice portal includes a section on workplace prevention, which provides an overview of recommended approaches⁽³¹⁾. The EMCDDA has also published a guide to social reintegration approaches to improve employment outcomes in people receiving drug treatment, which includes sections on workplace activities⁽³²⁾. Although it has been developed in response to national legislation, the US has published a drug-free workplace toolkit, which includes guidance on developing workplace policies, employee education, management training, employee assistance programmes for those experiencing more serious problems, and drug testing (see 'Drug testing' below for important EU discussions on this topic)⁽³³⁾.

Comprehensive workplace prevention policies typically focus on three primary targets: (1) the workplace environment, (2) social interaction and peer support and (3) individual substance use (Figure 25). That is to say, policies and interventions in the workplace may focus on changing personal, social and environmental factors that affect the likelihood of substance use. The components of a comprehensive prevention approach should address all three targets as noted below.

FIGURE 25

Comprehensive workplace prevention



Workplace environment:

- Establish written policies about substance use in the workplace.
- Change the work environment to address the quality of work life and access to alcohol and other substances.
- Implement supervisory and management training.
- Target the entire workplace environment.
- Be consistent with the organisational culture.

Social interactions/peer support:

- Develop peer support programmes.
- Create clear social control policies regarding use at work and establishing workplace norms regarding alcohol use.

Individual substance use:

- Make employee assistance programmes available.
- Address substance use as a health and safety issue.
- Incorporate substance use into general wellness.
- Carry out confidential screening and identification of substance users, which also provides for referral to treatment and re-entry into the workforce.
- Include confidential drug testing only as part of a comprehensive, multi-component intervention.

⁽³¹⁾ http://www.emcdda.europa.eu/best-practice/briefings/workplace_en

⁽³²⁾ http://www.emcdda.europa.eu/publications/insights/social-reintegration_en

⁽³³⁾ <https://www.samhsa.gov/workplace/toolkit>

Barriers

Despite the compelling reasons for workplaces to implement substance use prevention policies and interventions, many organisations continue to be reluctant to implement such interventions. While the prevention of other health and safety issues is actively embraced, substance use continues to be ignored. The primary reason for this reluctance and the number one barrier to implementation is the stigma attached to the issue.

Workplaces are equally reluctant to consider the need to investigate the extent of substance use among their workforce and institute interventions to address or prevent the problem. In many cultures, alcohol and substance use are considered moral failings or primarily legal issues, not health and safety issues.

Other barriers to implementation include:

- an unstated tolerance among supervisors and others regarding some substance use behaviours;
- the costs associated with implementing a prevention intervention;
- the fact that substance use is often considered to be a personal rather than a work-related issue and workplaces are reluctant to tell people what they can and cannot do in their personal lives.

Drug testing

Although drug testing has been around for decades, it is still considered controversial in many places. In Europe, a proportionate response is often adopted, so drug testing may be supported in safety-critical roles (see above) but not in roles where the physical or mental standards that drug testing assumes (i.e. being drug free) are not relevant. For many organisations and, indeed, countries, a primary issue is trying to balance worker safety against privacy and discrimination concerns. Another significant issue is that, because substance metabolites can stay in a biological sample long after the substance has been used (indeed, in the case of hair, the drug can stay in the sample for many months), drug testing really provides little evidence of impairment. Before deciding to implement a drug-testing programme, organisations should also consider relevant national legislation, as this varies by country.

Regardless of the approach taken by employers, drug testing alone is not prevention. While research has shown some positive effects of drug testing on employee substance use, it is not in and of itself a prevention intervention, as it fails to address behavioural aetiology and additional needs related to substance use. Drug testing should therefore be implemented only as part of a comprehensive substance prevention policy and approach.



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CHAPTER 7

Environmental prevention

This chapter provides a definition of environmental prevention, describes relevant approaches and presents guidelines on how to develop environmental prevention policies for schools and workplaces. Characteristics and evidence for the effectiveness of both tobacco and alcohol policies are discussed to explore best practices in policy-making. Nightlife is an important, although often overlooked, environmental setting in which to deliver prevention work. Nightlife prevention interventions and their characteristics are also discussed.

The EMCDDA has published a report on environmental approaches in prevention, which can be found on its website ⁽³⁴⁾.

The environment and its influences

What influence does the social environment have on individual beliefs, attitudes and behaviours? It shapes social norms and influences beliefs about the risks and consequences of behaviours, such as substance use and how to deal with stressful situations. Observed behaviour, such as substance use among peers and/or other

influential cohorts, is perceived as a norm. Furthermore, how a community enforces laws or regulations has an impact on how its residents assess the tolerance or approval of behaviours such as substance use.

Environmental prevention interventions aim to limit exposure to unhealthy and risky behavioural opportunities and promote the availability of healthier opportunities. This is particularly important in those environments that contain triggers for risky behaviour. In simple terms, this is achieved by modifying the context where the behaviour, such as substance use, takes place in society or in specific places, such as alcohol retailers, public spaces or entertainment venues. Unlike the approaches that aim to develop skills and cognitions in individuals or groups, environmental interventions target familiar habits and behaviour so that we do not have to rely on target groups making deliberate and conscious (healthier) choices. The aim is to make the healthy choice the easiest option. For example, a society may raise its taxes on tobacco to make it more expensive to buy cigarettes, prevent underage people from purchasing substances by establishing age-restriction laws and identification-checking requirements, lower the price of non-alcohol beverages in nightlife venues or simply prevent retail stores that sell alcohol from being located near schools.

⁽³⁴⁾ http://www.emcdda.europa.eu/publications/technical-reports/environmental-substance-use-prevention-interventions-in-europe_en

These types of intervention use the environment to indirectly target a specific population. They do not have direct contact with that population, as would be the case with a school-based curriculum or family interventions. The advantage of environmental interventions is that, if implemented correctly, they can have a greater reach than behavioural interventions alone. However, to have the greatest positive effects on substance use in society, both behavioural and environmental interventions should be delivered in a coordinated and complementary manner. An examination of the examples provided in the definitions section below suggests that a 'joined up' approach is needed for the successful delivery of environmental prevention interventions. Professionals from different sectors, many of whom would not consider substance use prevention to fall under their remit, must be persuaded that they play an important role in prevention and that the decisions that they make can change an environment in a positive and healthy way.

Definitions

Environmental interventions can be divided into three main categories — regulatory, physical and economic — although there is a close relationship between them (EMCDDA, 2018b).

Regulatory approaches concern changes to the legal environment that defines what behaviours are allowed. These can include laws that control access to substances, such as age restrictions, medicine regulations and illicit drug controls, and actions that control behaviour after consumption of substances, such as drink driving laws or prohibiting the serving of alcohol to visibly intoxicated

people. Regulatory approaches also cover practices such as the manufacturing and retail of potentially harmful goods or the marketing of goods so that (vulnerable) consumers are not exposed to misleading or pro-consumption advertising. Age restrictions, licensing hours, standardised plain packaging of tobacco products and the banning of alcohol sponsorship in sports are good examples of this. Some countries intervene such as by requiring establishments to provide free drinking water as a condition of providing an entertainment or alcohol retail licence. However, there is no regulation of the manufacture, distribution or sales of most illegal substances. The only control is through those laws that aim to deter availability and strong messages that underline the societal norms against their use. As the manufacture of these substances is not controlled, these substances may also be mixed with other dangerous substances that are themselves health hazards. Natural products that form the basis for some of these substances, such as cannabis, opium poppies and coca plants, can be eradicated when found, or farmers raising these 'crops' may be given money not to grow them (crop substitution policies).

Physical approaches aim to change the physical environment in which choices are made and behaviours occur. This can include both the micro-environment, such as the design of bars and nightclubs (e.g. to discourage excessive and rapid alcohol drinking), and the macro-environment, such as city planning and landscape design (e.g. provision of free transport at night-time, a comprehensive public transport policy, neighbourhood renewal in deprived areas). Physical interventions might also be relevant to items and structures within the environment. There is currently a lot of interest, for example, in the way in which beverage glasses can be designed so that people consume less alcohol than they

think they have (e.g. by making them tall and thin but with a lower total volume).

Economic approaches focus on both consumers and potential consumers through taxes, pricing policies and subsidies to encourage healthy choices. For example, most European countries have introduced large taxes on tobacco products, and some have introduced a minimum alcohol unit price to reduce the affordability of harmful products. Similarly, healthier choices can be incentivised by lowering the price of non-alcoholic drinks, including water in recreational venues such as pubs and bars.

One of the background papers of the *Health and social responses to drug problems: a European guide* (EMCDDA, 2017b) provides an overview of the behavioural insights⁽³⁵⁾ that are the foundation of environmental prevention.

| Socialisation and environmental interventions

Prevention professionals promote the positive socialisation of children in society. First modelled and reinforced by the family, the process of socialisation is continued by schools and then by other environments that help to guide appropriate behaviours through norms, laws and regulations, which are enforced to promote adherence. These behavioural interventions combine a socialisation and prevention approach and are designed to help individuals interpret information or cues, within their social and emotional context, about what is expected of them and what is appropriate. They help them to make decisions about the outcomes or consequences of the performance of behaviours within these settings and to learn and

practise new skills or behaviours, such as supportive parenting skills or resistance skills.

So how does this work for environmental interventions? Identifying threats and opportunities in the environment and addressing them with interventions that can affect all those exposed to such threats is the nature of environmental prevention interventions. Healthy environments are positive places that maximise the strengths of a society and minimise negative influences that might exist. These interventions are designed to change the context in which people make decisions:

- physical environment — limiting access to and availability of alcohol, tobacco products and other substances;
- social environment — reinforcing non-use norms and attitudes.

Beyond some of the physical constraints, there are laws and policies that have been made to control access to alcohol. Internationally, most countries have a minimum alcohol purchase age of 18 or 19 years. Some have no age limit, and some have banned purchases entirely, primarily for religious reasons.

Of course, people may seek alcohol outside regulated environments and controls, and a small number may make alcoholic beverages themselves. For this reason, it is important that substance use behavioural prevention interventions are also put into place so that people are more likely to control their drinking.

To affect behaviour in the social environment, it is often necessary to promote policy initiatives, campaigns and other outreach efforts that focus on reinforcing non-substance use norms. These campaigns and policy

⁽³⁵⁾ http://www.emcdda.europa.eu/document-library/applying-behavioural-insights-drug-policy-and-practice-opportunities-and-challenges_en

initiatives are designed to affect public awareness and attitudes in regard to substance use and promote actions and laws that prevent use or the consequences of use. Often these efforts result in changing the norms of behaviour for affected groups. For example, prevention campaigns that promote parental monitoring create a 'new norm' for the target audience of the campaign. The 'second-hand' smoke public health efforts, which were often implemented by regulations, were also enforced by new social norms that reinforced the message 'you can't smoke here'.

Environmental prevention approaches in schools and the workplace

In this section, we look at environmental interventions that involve policies in micro-level environments — principally in schools and the workplace — to see how they help to ensure safe, healthy and productive settings for learning and working. As micro-level settings, they are more amenable for measuring the impact of policy, and there is therefore more research underlying their approaches to preventing substance use than is generally available at the level of society and for other macro-environments.

As we saw earlier, these two environmental levels are not independent of each other but rather interact to influence values, beliefs, attitudes and behaviours, including substance use. Lastly, environmental interventions offer the opportunity to create consistent policies across settings so that policies against substance use are present in the home, at school, in the workplace and in society and

thus reinforce a societal norm against substance use in young people.

School policies

School policies related to substance use are an integral and vital part of a comprehensive approach to prevention interventions. Unfortunately, they are often developed in a casual and unsystematic manner, viewed as a 'box ticking' exercise and so forgotten about among the school's manual of policies. School policies should therefore include actions that can be implemented across the school with relative ease and that demonstrate a coordinated and comprehensive response to substance use within the context of promoting health and well-being.

Comprehensive policies are important for a number of reasons and should include key actions and priorities that not only focus on substance use but also cover approaches that serve to create a healthy and supportive school environment.

- Policies restricting the use of substances help establish the social norm that substance use will not be tolerated. If students see that smoking or drinking is not tolerated on school grounds, or at school-sponsored events, their exposure to potential role models who exhibit the behaviour will decrease. Their normative beliefs that substance use is inappropriate should strengthen as a result.
- Policy actions can also provide environmental constraints, insofar as they can reduce access to substances.
- In the broader context, policies should be developed that help students perceive that the school cares about their well-being and that a whole school approach is

taken to support emotional development and positive social development with peers and school-based adults. Policies may also include actions that facilitate student input into the organisation and running of the school, helping to foster a sense of community and greater connectedness between staff and students.

- Censure and punishments in relation to substance use incidents may have a role in school substance use policies, but they must be proportionate and implemented consistently and should not predominate over other aspects. Substance use incidents present an opportunity to provide individualised support for students or to introduce or reinforce classroom prevention efforts.

The structure of substance use school policies often includes a statement of purpose, which may include language referencing the need to establish and maintain a safe, healthy and substance-use-free environment to support the healthy development of all students and to ensure that they achieve their academic potential. Many policies also commit the school to implementing interventions and policies that represent known principles of effectiveness and, where possible, are supported by evidence. One of the most important objectives in school policy is to ensure that the policy is communicated to everyone in the school community who would be affected. Who is covered by the policies — students, staff, visitors? Does it apply only to campus life? What about school-sanctioned activities? All of these questions need to be considered and communicated widely to everyone.

Policies should specify the range and types of substances they include. For example, how will the school respond to the growing popularity of e-nicotine delivery devices? They should also cover substance use and possession not only at school but also at school-sponsored events. In addition,

the policy should include the use of substances on school grounds and at events by teachers and staff as well as students.

The policy should also make clear the types of substance-related incidents that will be punished, for example the possession or sale of various types of substances or a reasonable suspicion that a student has come to school impaired, and how these will be responded to in a supportive manner.

Policies should also be clear about who — families and law enforcement authorities — will be notified concerning an event related to use, possession or sale, and at what point in the process. These policies should also specify clear, and consistently enforced, consequences for violations by students. These policies should not be punitive in nature but, instead, aim to keep students in school even if they use substances.

Students may need counselling or treatment. If a student is involved in risky behaviour, screening and brief intervention may be needed. Most schools will not have the internal expertise to conduct these sorts of activities, so high-quality external providers, who work in an evidence-based manner and share the ethos and values of the school, may be best placed to deliver this work. Generally speaking, students using substances should be given the opportunity to stop using them in a supportive environment in which their behaviours — including timely attendance, the completion of homework assignments and academic performance — are closely monitored.

A school policy document might include (but should not necessarily be limited to) the following content.

- **Statement of purpose.** The typical structure of a school policy sets out the objectives and elements. They often begin with a statement of purpose, usually relating to the need for a safe, healthy and substance-use-free environment.
- **To whom it applies.** Policies specify the target group or groups that are affected by the policies.
- **Support for evidence-based prevention approaches.** Many policies also commit the school to implementing programmes and policies that are evidence based. This is clearly consistent with our focus in this curriculum, which looks to the International Standards for guidance.
- **What substances are covered.** Policies should specify the range and types of substances they include, special circumstances, such as athletic events and school trips, and staff behaviours.
- **Sanctions specified.** The policy should also specify the types of substance-related incidents that will be punished and under what circumstances.
- **Communications.** The policy must be communicated to all who are affected.

Communicating with a student's parents, informing them that their son or daughter is involved with substances, can be particularly challenging. One way to help reduce potential misunderstanding and negative response from parents is to point to a policy that lays out precisely what steps, and in what order, the school will take in response.

Such policies regarding infractions are critical to preserving a school culture in which students feel safe and secure and are supported in getting help when they need it.

| Workplace policies

There are many similarities between policies in the workplace setting and in the school setting. The purpose of these policies is the same — creating a healthy, safe and substance-use-free environment — but the target audience is adults, not children and people who work with children.

First, as noted before, environment-based interventions are universal in that they focus on the broadest possible audience, which includes a mix of substance users and non-users, although most will be non-users. Consequently, workplace policies address substance use for all employees. Such policies should be comprehensive and address education and prevention, as well as the identification, treatment, rehabilitation and reintegration of workers with substance use problems. In addition, the development of these policies should involve all key stakeholders in the organisation.

As the name implies, interventions targeting the workplace environment can focus on specific characteristics of the workplace that can affect the likelihood that employees may engage in substance use. Workplace characteristics include availability and access to alcohol or other substances, poor working conditions and a workplace culture that reinforces substance use.

Effective workplace interventions address substance use as a health and safety issue. In this way, it can encourage the availability of intervention services for the individual and family while promoting a safe and productive setting. It also reduces the stigma associated with seeking help.

A comprehensive approach to the prevention of substance use in a workplace setting begins with a written substance

use prevention policy. A substance use prevention policy is a written description of a company's position on the use of substances. It is designed not to be punitive but to recognise that substance use is a health problem that often requires treatment to help substance users recover and prevent additional negative consequences. Policies should be directed at all workers regardless of status in the company.

As is the case in every environment, it is essential that the policy is disseminated widely to all workers and other stakeholders. It is equally important that there is clear communication about the sanctions for violations of the policy. A focus on how the new policy will promote the general health and safety of all workers is an important component of the dissemination strategy.

Environment/population policies on tobacco and alcohol

The International Standards reviewed tobacco and alcohol policy research and determined that there were several types of initiatives that were effective in reducing initiation and the use of substances, primarily in young people. These were focused on preventing youth access and other efforts to discourage initiation and on preventing progress to regular use. With this guidance, we begin to identify the components that can be used to create environmental interventions that work.

According to the International Standards, raising the price of alcohol and tobacco reduces their consumption in the general population. Therefore, increasing the price

of tobacco and alcohol through taxation is an important evidence-based intervention for substance use. Other strategies that have been shown to reduce use include increasing the minimum purchase age for tobacco and alcohol products and enforcing this rule. Restricting and banning advertising and other forms of marketing of tobacco and alcohol to young people have also been shown to be effective.

As with many prevention interventions, combining environmental interventions can have a more powerful impact than single interventions. Accordingly, comprehensive prevention interventions to keep underage young people from purchasing tobacco and alcohol involve:

- active and ongoing law enforcement;
- the education of retailers through a variety of strategies (personal contact, media and information materials);
- media- and school-based prevention interventions to reinforce these messages.

Specifically, the review of research on environment-based substance use interventions, conducted during the development of the International Standards, found that raising the price of alcohol had several positive outcomes. It had an impact on both moderate and heavy drinkers, including heavy drinking among college-age young people. Furthermore, it found that increasing the price of alcohol by only 10 % was associated with a 7.7 % decrease in alcohol consumption in the general population and that increased prices for alcohol were also associated with decreases in violence.

Finally, the evidence showed that multi-component interventions were effective when interventions included multiple strategies such as:

- restricting tobacco product distribution;
- regulating the mechanisms of sale;
- enforcing access-to-minors law;
- retailer education and training when conducted in conjunction with community mobilisation.

One analysis of attitudes towards alcohol policies, undertaken in Norway and Finland, has led to a better understanding of what needs to be in place to ensure support for environmental interventions that are designed to reduce alcohol consumption and resultant harms. In the first study, a research team examined the results of a series of national surveys that were conducted in Norway and Finland during 2005-2009.

The researchers found that, over the 4 years, there was increased support in Norway and Finland for restrictive alcohol policy measures. They compared their findings from similar surveys conducted in North America and Australia during the same time period. However, they found a different situation: the support for such measures decreased. The researchers looked to see what factors were related to the increased support for these policies in Norway and Finland (Stovall et al., 2014).

They found that the increased support for restrictive policies was mediated in part by changes in beliefs in both the effectiveness of such measures and the harm caused by drinking. In other words, what they found was that increased perceptions of the effectiveness of the more restrictive alcohol policy measures were associated with increased beliefs in the association of drinking with harmful outcomes. Consequently, the researchers suggested that strengthening people's belief in the effectiveness of restrictive measures and in the harm caused by drinking may increase public support for restrictive alcohol policy measures. This may be a critical

part of agenda-setting needed to build support for effective measures.

Another example of successful policy-making is the public smoking ban in France. The smoking ban was implemented in France in February 2007 for workplaces, shopping centres, airports, train stations, hospitals and schools. In January 2008, it was extended to meeting places (bars, restaurants, hotels, casinos, nightclubs). A cohort of 1 500 smokers and 500 non-smokers were followed just before the implementation of the ban — December 2006 to February 2007 — and twice after the ban was implemented in 2008 and 2012. The rates of smoking in these settings (bars, restaurants and workplaces) decreased considerably between the first and third waves:

- restaurants — 64.7 % (wave 1) to 2.3 % (wave 2) to 1.4 % (wave 3);
- workplaces — 42.6 % (wave 1) to 19.3 % (wave 2) to 12.8 % (wave 3);
- bars — 95.9 % (wave 1) to 3.7 % (wave 2) to 6.6 % (wave 3).

The findings show that smoke-free policies can lead to substantial and sustained reductions in tobacco smoking in public places while also leading to high levels of support from the public (Fong et al., 2013). Five years after its introduction, 88 % of non-smokers and 78 % of smokers supported the smoking ban.

Strategies in entertainment venues

Researchers have studied substance use prevention targeting entertainment venues such as bars, clubs, restaurants and outdoor or special settings where large-scale events take place. Although these venues provide opportunities for social gatherings and support for the local economy, they also provide opportunities for engagement in high-risk behaviours, such as harmful alcohol use, substance use, driving under the influence and aggression. For more information and resources on nightlife issues, see the EMCDDA (2017b, p. 136) responses guide.

Four key principles are provided for effective local action, namely sound knowledge of local nightlife issues, commitment to creating safe and healthy nightlife, partnership working between key local agencies, and evidence-based responses. If you are not familiar with specific evidence-based interventions in nightlife settings, you can always consult the Healthy Nightlife Toolbox (Figure 26) ⁽³⁶⁾. This toolbox provides three databases: one for interventions, one for literature on these interventions and one for general literature on nightlife prevention.

In general, most prevention interventions in these settings use multiple components, including the training of staff ⁽³⁷⁾ and the management of intoxicated clients, and changes in laws and policies related to serving alcohol to minors or intoxicated persons or related to drinking and driving, etc.

Miller and colleagues (2009) have proposed an environmental strategy to address substance use at electronic dance music events (where levels of use tend

⁽³⁶⁾ <http://www.hntinfo.eu/>

⁽³⁷⁾ See, for example, Mendes and Mendes (2011).

FIGURE 26
Healthy Nightlife Toolbox



Source: <http://www.hntinfo.eu/>

to be higher than at other types of events). These events attract young adults and are often associated with the use of alcohol and other substances. The strategy has three components and is based on similar interventions in alcohol prevention designed for use in bars:

- mobilisation;
- strategies for the exterior environment;
- strategies for the interior environment.

Mobilisation of key stakeholders — motivating participation and action from various sectors of the community, such as the club owners and managers themselves, the police or alcohol-licensing authorities, public health representatives and political leaders — is important, although often a challenge. However, there are some shared motivations that can help to foster a sense of shared purpose across the community:

- maintaining a safe and lawful environment for the clubs and non-substance-using customers;
- maintaining good business practices and adherence to alcohol-licensing laws;

- remembering that substance use reduces profits on food and non-alcoholic beverages.

The second component, focusing on the exterior physical environment of the club, including lighting and parking, refers to characteristics of safety and security. Interventions external to the club venue encompass the following aspects:

- security or door staff monitoring external space around the club, such as car park, to enforce compliance;
- entrance security to check customers as they enter;
- identification of drug- or alcohol-impaired individuals;
- written club policies that limit access to the club.

Strategies for the interior environment — the third component — also refers to characteristics of safety and security. This aspect of the intervention follows alcohol prevention interventions very closely. Responsible beverage service (RBS) training aims to provide servers with a range of skills to help reduce alcohol-related harm, including:

- checking identification to ensure compliance with alcohol age restrictions and other regulations;
- promoting server practices that reduce the likelihood of excessive consumption;
- identifying and responding to early signs of excessive consumption in patrons (e.g. rapid consumption);
- identifying intoxicated patrons and refusing them service;
- intervening to prevent intoxicated patrons from driving.

Other actions that are needed include the following.

- Written club policies. Clubs should be promoted as a fun and safe environment while establishing a no-

tolerance policy concerning illicit substance use and dealing. This approach should be expressed through written in-house policies that support the actions of staff to detect problems and intervene.

- Interior physical space monitoring. Bottlenecks and hidden areas should be avoided, as should excessive heat. Improving physical conditions enhances health conditions for visitors and staff.
- Management and staff action. Both staff and management should be capable of undertaking action in support of the club policies. This includes staff training on drug recognition and appropriate intervention strategies such as external environmental approaches, and both door staff and inside staff should receive this training.

A set of standards has been developed by Club Health for licensed premises, managers and promoters, but these also act as a reference guide for agencies responsible for the licensing and policing of nightlife venues. They identify key priorities of the night-time economy to end irresponsible alcohol marketing and sales promotion, to ensure the safety of both consumers and staff, and to reduce the amount of nuisance caused to host communities.

Despite the scientific foundation that supports the effectiveness of environmental interventions (Figure 27), barriers to their implementation remain; however, there are also factors that enhance the appeal of environmental interventions (Table 14).

FIGURE 27

Nightlife, festivals and other recreational settings

Policy and practice briefings
Nightlife, festivals and other recreational settings

Overview
Issues, main options and European picture

Evidence
What does the available evidence say?

Implications
Implications for policy and practice

Issues

Drug and alcohol use in nightlife settings, such as bars, nightclubs and other recreational venues, is linked to health and social problems, including acute health harms, aggressive behaviour and violence, and driving under the influence of alcohol and drugs. There are also longer-term health effects and addiction. Adverse social consequences may include drug dealing and public nuisance. Because many of these harms are associated with excessive use on a particular occasion, many responses aim to reduce the amounts of alcohol and drugs that are used.

Response options

- Most of the evidence on responses in recreational settings relates to alcohol. Few interventions targeting drug use in recreational settings have been robustly evaluated.
- Prevention or harm reduction information material can be provided to young people in recreational settings. Peer educators disseminating this type of information may be seen as more credible. These activities can be supported by websites and apps providing more detailed information on drugs, alcohol and related harms, and tips on avoiding them. However, the evidence for behavioural change effects from these interventions is scarce.
- Environmental strategies have a better evidence base. This approach includes measures that target factors that promote excessive consumption (e.g. discounted drinks, food pricing and

Source: Best practice portal, EMCDDA

TABLE 14

Barriers to and enhancers of implementing nightlife prevention strategies

Barriers	Enhancers
Industry and economic interests militate against prevention policies — e.g. tobacco farmers, service industry, pharmaceutical companies	Use data and research to build your 'case for prevention'
Advocates often ignore evidence-based interventions, e.g. tobacco taxation was recently called 'underutilised' by the WHO	Use evidence-based interventions and/or adapt successful models from tobacco or alcohol prevention to apply to your substance use problems
Getting laws and new policies passed involves political know-how and the ability to engage advocates for your side — extremely challenging!	Build support for evidence-based prevention by: <ul style="list-style-type: none"> ■ increasing beliefs in the effectiveness of your proposed strategy; ■ documenting harm and costs to others affected by substance use — e.g. second-hand smoke
Industry often frames the issue as an individual behaviour concern — if a person wants to drink, they have that right	Frame the issue as a public health problem and as population-based, which means that substance use affects more than the substance user alone

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CHAPTER 8

Media-based prevention

Implementing a media campaign is often the first thing people think of when faced with a new and challenging substance use crisis. That is often because campaigns are perceived as immediate solutions and, unlike prevention efforts in schools, the family or the workplace, are often highly visible and communicate the message to different stakeholders that ‘something is being done’. However, as we have learned in this curriculum, prevention professionals know that implementing effective campaigns can be challenging and difficult, and time and care must be taken in the development of prevention approaches.

In this chapter, we will look at what has been learned from research that can be applied to effective campaign planning: media characteristics that can support substance use prevention; useful evidence derived from effective strategies on what to do and what not to do; theories from communications research that guide the development of messaging; and how to apply some of these principles in prevention programming. Finally, we take a closer look at media literacy, which gives both prevention professionals and recipient groups the skills to access, critically analyse, evaluate and create media. We also provide some advice on how to engage with the media as a prevention worker, as this will help you leverage support for your work in the community and promote evidence-based prevention to different types of stakeholders.

Why use the media in substance use prevention?

The media serve many roles. They can help set the social and political agenda — e.g. why evidence-based prevention is important, the need for investment in prevention services and warnings about safety and threats to public health. They can also serve to coordinate substance use prevention efforts that operate in the multiple micro- and macro-level settings throughout a community. Such multi-component efforts can be more powerful than single-component prevention interventions.

Mass media have many characteristics that make them attractive for prevention.

- **Economy and reach:** a good media campaign can reach a large audience with relatively minimal expense — the cost per person reached in a campaign is often lower than in community or school-based approaches.
- **Ability to target:** a campaign can be timed and broadcast so that the group most in need of the prevention material (e.g. young adolescents, university students, nightlife patrons) can be reached most effectively.

- **Rapid response:** a prevention message can be created rapidly to respond to an emerging need — for example a new drug that is causing harm in the community.
- **Entertain:** if done properly, media can entertain while still conveying the core prevention message.
- **Influence opinion leaders:** media can also feed into political and public debate and play a role in educating and influencing opinion leaders about the most suitable and effective responses to substance use.
- **Influence the prevention agenda:** media can also help to positively frame substance-related issues to indirectly shape individual and community attitudes. This might be done to encourage community support for investment in evidence-based prevention. Media can help to reduce negative attitudes towards substance users so that they are viewed as deserving help and support as much as any other at-risk groups. This will also have the effect of encouraging substance users to engage in prevention or treatment services and of encouraging professionals to enter the prevention field.
- **Coordinating role:** media are most effective when combined with other prevention-oriented approaches, such as the approaches you have already learned about in this curriculum, and used to coordinate different groups (e.g. schools, employers, leaders) behind a coordinated campaign strategy. This is when media-based prevention campaigns can have their greatest impacts.
- **Cost-effective:** using media in substance use prevention campaigns need not be extremely expensive. Sometimes, when delivered as part of an overarching strategy, simple posters displayed in public places can start useful prevention-focused conversations and help in the substance prevention effort.

Theories of how media affect audiences

Successful campaigns and other interventions in school, for example, depend on the theories that guide individual attitudes, intentions and behaviours, specifically substance use. These theories set the stage for intervening with persuasive messages that can serve to reinforce non-use, discourage continued use for those who have started, or encourage and guide users to treatment services.

The TPB (Fishbein, 2011) and other theories from the communication and persuasion literature suggest that all attitudes are learned. Therefore, to change an attitude, the campaign developer needs to provide information to replace the knowledge on which the old attitude is based. This ‘message-learning theory’ specifies the factors that must be present if a communication is to persuade, and how these factors working together produce a change in attitude.

Carl Hovland’s message-learning theory of persuasion, like the TPB, has contributed greatly to the understanding of message development. As one of the theories that say that people learn their attitudes — they were not born with them — it suggests that, to change people’s attitudes, they need to learn an alternative belief to take the place of the one that is being changed (Hovland and Weiss, 1951; Hovland et al., 1953).

The reinforcement principle is simple and has been an important feature of psychology almost from its beginning. Reinforcement theory suggests that, if a neutral object comes to be associated with a pleasant mood, feeling or outcome, your feelings towards that neutral object will become a way to reinforce your behaviour. That is, the previously neutral object will become a source of pleasure for you, even in the absence of the reinforcer.

With regard to the use of psychoactive substances, in most cases, the 'audience' may be well - acquainted with the 'product'. They know about the substance and it would seem that the reinforcement model would predict a failure in this case. However, before we accept this interpretation, we must analyse it more closely. Often, in young audiences, substance use is associated with a highly desirable outcome (popularity) or group (the leaders or most popular members of the class). If the leadership uses a substance, and the leaders are valued positively, then it is likely that the substance will 'absorb' some of this positive feeling. The association between the leaders and the product (in this case, a substance such as cannabis, cocaine or alcohol) will be made.

Applying theory to practice is often challenging. However, prevention professionals are tasked with using evidence-based practices in their prevention work in communities, and these may include media interventions. Most evidence-based media interventions involve the application of persuasion theory and follow a series of guidelines and components that have been shown to be important in earlier empirical research on persuasion.

The classic 'formula' for persuasion (Lasswell, 1949) lists all the components to be considered when creating, or judging the goodness of, a persuasive communication.

- 'WHO' refers to the source of the communication (i.e. who is delivering the persuasive message). There are critical features of the message source that enhance persuasiveness — primarily the source's credibility, which consists of, at a minimum, expertise and trustworthiness. Source expertise has to do with the perception that the communicator possesses valid information and is capable of making valid assertions.
- 'WHAT' refers to the content of the communication, including the use of particular words and images to convey the message. The quality of the information is important. Is it evidence based? Is it relevant to the issue at hand (i.e. substance use) and is it relevant to a targeted receiver of the message? Also, is the language understandable to the target audience?
- 'TO WHOM' refers to the audience. Developers must be aware of audience variations and which parts of the audience are of particular interest. Of course, in some cases developers want to address everyone who is exposed to the message; at other times, however, specific subgroups of the larger audience, such as young adolescents, pregnant women or the elderly, are the target.
- 'HOW' concerns messaging, the context and subtle variations in message content used to address the audience or audiences and the particular medium through which the message will be transmitted. By the medium, we mean the way in which the message is delivered to the audience. Whereas some audiences may engage better with online platforms, such as social media (e.g. social networking sites, such as Facebook; online video media, such as YouTube), others may not, and more traditional media, such as radio, television, newspapers, posters and billboards, may be appropriate for them.
- 'EFFECT' relates to how to measure the success or failure of the substance use prevention messages. Without a good estimate of effect, there will not be a clear idea of the success or failure of these persuasive efforts.

The two-step flow of communication model suggests the ways media impart influence (Figure 28). This model specifies how media work, and also how media effects should be evaluated. In the case of adolescent substance

use, the model suggests that parents may be effective transmitters of media-supplied substance use prevention information. Media, in other words, work through the parents, who interpret the information for their children and transmit it to them.

People may often hold unrealistic expectations of what media-based substance use prevention can achieve. It is important to understand what media can do to prevent substance use and what they cannot do. The two-step flow model helps to provide this understanding.

The theory developed by Paul Lazarsfeld and colleagues (1944) suggests that mass media are not particularly effective at persuading individuals. However, face-to-face, interpersonal communication is much more effective. So how do the media persuade? They do this by persuading individual opinion leaders, the people to whom others listen. These opinion leaders, in turn, convey the message of the media to those who are responsive to them. Research suggests that face-to-face communication can

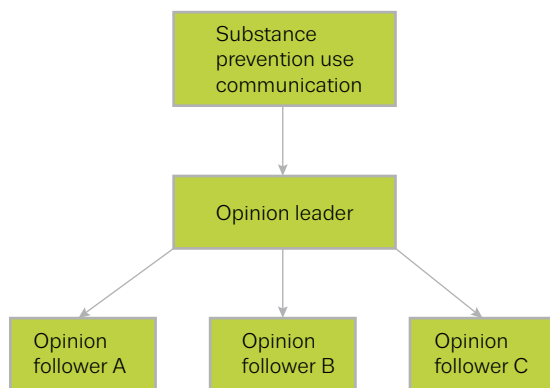
often be more effective than traditional mass media (TV, radio), and this may be especially true for adolescents.

Parents (or peers) can be the ideal opinion leaders for their children. However, it is advisable that they have some knowledge about substances and substance use and be confident enough to engage in a conversation with their children about these topics. The media must therefore motivate and inform parents to transmit the information to their children. This is an ideal context for persuasion, assuming that the media messages are clear and informative and also motivate the parent to take on this difficult task.

There is considerable evidence that suggests that parents can be ideal collaborators in our substance use prevention efforts. Some may think that adolescents grow apart from parents and rely on their peers; however, parental influence continues well into young adulthood (Elkins et al., 2014; Scull et al., 2014; Wang et al., 2013).

FIGURE 28

Two-step flow of communication model



Evidence

What is the available evidence in support of media campaigns? The developers of the UNODC International Standards found several reviews of research literature on the effectiveness of media campaigns. The strongest findings came from those studies that examined tobacco use; however, there were no similar findings for alcohol or other substances.

The reasons for this lack of evidence are mostly based on the challenges of conducting rigorous evaluations of media campaigns. An important fact to keep in mind is that

research on the issue of persuasion, and how it relates to influencing various types of behaviours, has been ongoing for the past 50 years. There is empirically based knowledge about the best ways to persuade and how to construct persuasive messages that can have an effective impact on attitudes and behaviours.

But, unfortunately, many media campaigns do not use this information on effective persuasive methods. Instead, they rely on ideas that may seem intuitively to be good ideas but have no basis in theory or evidence.

The International Standards provide the following list of characteristics of campaigns with positive outcomes.

- They precisely identify the target group of the campaign. Communication research has found that 'one size does not fit all'.
- The campaigns are based on a solid theoretical foundation.
- Messages are designed on the basis of strong formative research. This means testing messages, materials and media platforms before releasing the campaign.
- If possible, media campaigns connect to other existing substance use prevention interventions in the home, at school and in society. Multi-component prevention efforts can be more effective.
- Adequate exposure of the target group is achieved for an adequate period of time.
- Successful media campaigns are systematically evaluated.
- Prevention campaigns directed at children target parents.
- The campaigns aim to change cultural norms about substance use and/or educate their audiences about the consequences of substance use and/or suggest strategies to resist substance use.

There is also research and evidence about why certain media campaigns fail.

- The campaigns do not focus on the most relevant determinants of behaviour. Telling people to 'just say no', or trying to scare people, does not work well. Although substance use is a risky behaviour and all users face some possibility of harm, extreme outcomes such as death, disability and overdose are still very rare. So, if audience members know people who have used a psychoactive substance without the serious effects portrayed in media campaigns, the credibility of the campaign is lost, and the next persuasive attempt is less likely to succeed.
- They are 'over the top'. Most young people do not believe horrific pictures of people with serious substance use disorders, as these outcomes are rare. Such presentations usually prove too extreme, and their presentation can do more harm than good. Such messages generally focus on the negative without providing any advice about how one should behave to avoid the threatened consequences. This may lead target audiences to ignore more useful and relevant follow-up advice. Attempting to scare people must be handled with great care.
- Findings from communication research tell us that messages that cause too much fear in target groups lead them to prioritise addressing their feelings of fear rather than the behaviour that they are being warned about. This can lead to recipients ignoring the message and engaging in the behaviour that they are being warned about, to prove to themselves (and the communicator) that they have 'control' over the behaviour and that they will not suffer harm. It is still useful to try to increase feelings of fear and susceptibility to harm in target groups, but only to a level that motivates them to change their behaviour or

seek further support. Research tells us that successful messaging campaigns include 'efficacy messaging', which provides practical and relevant information that helps to improve self-efficacy (the belief that one can do a recommended action) and response efficacy (the belief that a recommended action will have a desired outcome).

If the ineffective campaign strategies described above do have any influence, it is usually a short-term effect in audience members who were already determined not to use substances. However, even these people may react in an unintended way to the messages, so even no campaign would be better than 'doing something' (Barden and Tormala, 2014; Clarkson et al., 2008; Clarkson et al., 2013; Green and Witte, 2006). This is why campaign and message design are so important in media prevention campaigns and why it is critical to pre-test all messaging with representatives of the larger target group to improve confidence that they will have the desired effect.

The rise of social media and on-demand television and film services has changed the way that people consume media. Audiences are no longer a passive party in a one-way viewing relationship and the 'responsibility and the ethical dimensions of [viewing and media] choice are shifted to the individual citizen and consumer, supported through media literacy' (O'Neill, 2008, p. 13). Bergsma and Carney (2008) add that 'Media literacy education has emerged in the last 20 years as a promising alternative to censorship (e.g. regulating "unhealthy" programming) or other methods of limiting media use' (p. 523). Within the debate on media influence over attitudes and behaviour, almost all sources seem to agree on the need for media literacy or media education. The only significant differences of opinion can be found on the form and content of media education.

Bergsma and Carney (2008) define media literacy as 'the ability to access, analyse, evaluate, and create media in a variety of forms' (p. 523). In the US, the National Association for Media Literacy Education (NAMLE, 2010) provides some core principles of media literacy education.

- Media literacy education requires active inquiry and critical thinking about the messages we receive and create.
- Media literacy education expands the concept of literacy (i.e. reading and writing) to include all forms of media.
- Media literacy education builds and reinforces skills for learners of all ages. Like print literacy, those skills necessitate integrated, interactive and repeated practice.
- Media literacy education develops informed, reflective and engaged participants essential for a democratic society.
- Media literacy education recognises that media are a part of culture and function as agents of socialisation.
- Media literacy education affirms that people use their individual skills, beliefs and experiences to construct their own meanings from media messages.

Best practices have been formulated concerning the content, concepts and skills taught. In the US, NAMLE has provided some useful concepts and skills for the development of media literacy intervention and education, and these are also relevant to Europe and other geographical areas.

- All media messages are 'constructed'. Interventions teach the target audience about how the media differ from reality, evaluating what is shown compared with real-life experiences, or assessing the background of the producer/production of media messages.

- Media messages are created using a creative language with its own rules. Interventions teach the target audience about recognising advertising/production techniques or creating/producing media messages.
- Different people experience the same message differently. Interventions have explored how media affect people, what people can do to avoid the negative effects of media and/or how people can take action to change the media.
- Media have embedded values and points of view. Interventions teach the target audience about how to identify stereotypes, myths, biases, values, lifestyles and/or points of view represented in or omitted from media messages.
- Most media messages are constructed to gain profit and/or power. Interventions teach the target audience about the purpose of advertising or marketing strategies and encourage scepticism towards advertising or creating counter-advertising.

As we have seen with the other prevention approaches discussed in this curriculum, media literacy education is relevant to all age groups and across different delivery settings. For example, young people may often know more about online media technologies than older generations, but they may not necessarily have developed media literacy skills to help them navigate, assess and understand the representation of substances that they encounter. Similarly, older generations may be able to make important contributions to help keep younger people safe online but feel excluded from youth-orientated technologies and platforms. Helping to develop digital connections between generations may be one means of sharing this expertise.

How to use media in prevention work

When we use media in our prevention work, we must keep some essential principles in mind. One example of this is the media guidelines on nightlife for public health workers, published by the Club Health network ⁽³⁸⁾. They describe important issues to consider when engaging in mass media and give advice on how to target nightlife patrons. The guidelines also provide interesting examples and references to help you further explore how to use media in prevention, and can be a source of inspiration for engaging with media in general.

When engaging in mass media, Club Health has a range of suggestions for prevention professionals.

- Establish clear priorities among your objectives, distinguishing between on-site media actions and wider public debate and publicity.
- Anticipate, or even include, other points of view in communications. These perspectives are at least as important for the establishment or rejection of a policy measure.
- Acknowledge that security and legal considerations in nightlife are important but that a public health perspective should always be presented and promoted.
- Make a good press release that you can easily summarise:
 - Write a press release that is short (one page) and to the point and contains one key message. If needed, release more than one press release.
 - Keep your press release simple — no excessive use of adjectives, jargon or specialised technical terms. Stick to a simple layout.

⁽³⁸⁾ http://newip.safernightlife.org/pdfs/digital_library/Media_influence_guidelines.pdf. For more information, visit the Club Health website: www.club-health.eu

- Answer at least three of the classic five Ws (who, what, when, where and why) in the headline.
- If possible, use quotes and statistics.
- Provide essential information on the issuing organisation and add contact information.
- Include links for additional tools and resources.
- Have an overview on your expertise to hand and maybe a short biography.
- Promote the release online and follow it up. Traditional media increasingly pick up online stories and disperse it on a wider scale.
- Appoint an institution spokesperson, credible in the eyes of young nightlife patrons, accessible for local and national media players.
- Keep any internet-distributed texts short and understandable.
- Keep up to date with nightlife trends so that your messages are current and do not appear outdated.
- Anticipate that journalists looking for a story might sensationalise any information that you publish, which could negatively affect nightlife partners.
- Respect journalistic integrity but, if possible, ask if you can review any article that results from your media activity before publication. You will want to make sure that you have not been misquoted or that your words or press release are not taken out of context.

Keeping this advice in mind, you might be able to effectively influence the public debate and/or opinion on prevention or the use of substances. In this case, you can still have a broad reach without setting up a full-scale substance use prevention media campaign.

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CHAPTER 9

Community-based prevention

To reach the public at large and have an impact on public health, interventions should be implemented with a significant portion of the population and, furthermore, they should target those in the difficult-to-reach and often vulnerable subpopulations. Such an approach warrants the implementation of multiple prevention interventions.

However, whether one prevention intervention is implemented or several, an implementation system or infrastructure needs to be put in place to gain population support and to sustain the prevention effort and quality of implementation over time to achieve optimal impact on the total population.

Having an impact also requires that key stakeholders, those invested in the community, value evidence-based approaches. Increasing the likelihood that evidence-based prevention interventions can benefit their intended audience is one fundamental reason for effective community implementation systems. The other reason is that they allow multiple, comprehensive and integrated prevention to be established, and even early treatment services that are available to a range of populations, vulnerable groups and individuals.

This chapter defines basic concepts that are key to understanding how to build prevention systems with evidence-based interventions and policies involving several actors, stakeholders and available resources.

Evidence-based interventions, such as the Stockholm against drugs (STAD) project, Project Northland, Promoting School-Community-University Partnerships to Enhance Resilience (PROSPER) and CTC, are presented as examples.

Definitions

In this curriculum, we look at 'community' as a place where effective prevention systems can be developed and implemented. Most prevention professionals work at various levels of the community. This can include the broader society, which involves the macro-level environment — for example regional selective interventions targeting people with a migration background — as well as many micro-level settings, such as youth organisations and sports clubs.

Small and Supple (1998) differentiate between a neighbourhood and a community. They consider a neighbourhood a physical place, which is often defined by socially shared boundaries. These boundaries could be related to socioeconomic status or physical proximity. Community, on the other hand, is defined not so much by physical boundaries but more based on a sense of connection, identity and trust.

Multi-component initiatives combine several evidence-based interventions and policies to affect community-wide populations (Figure 29). Some of the components might include prevention interventions and policies that are implemented at school and in nightlife settings and those that address the needs of parents and families. They might also include the media, which can be used to effectively deliver prevention communications either as prevention messages or to reinforce prevention implementation in a community. The important point here is to focus on those interventions and policies that have been shown to be effective. When they are combined to address various populations in multiple settings, they provide a powerful tool for prevention.

FIGURE 29
Multi-component initiatives for a community



As indicated by our approach, when prevention professionals plan interventions, they need to consider targeting people through all of their micro- and macro-environments. In most situations, only one or two prevention interventions or policies are implemented, at either the micro- or the macro-level. The power of these multiple interventions and policies, addressing family-/ school-/workplace-/society-related influences, could greatly influence the number of adolescents and adults who would initiate substance use or engage in other behaviours that affect their social and physical health. In general, interventions or strategies that address multiple domains (individual and peer, family, school and community) of risk and protective factors are more likely to be effective.

For example, the Unplugged programme, a school-based substance use prevention intervention, is designed to reduce substance use in adolescents aged 11-14. It is likely to have a positive impact when delivered with fidelity to young people at a time in their life when substance initiation is likely to occur. This evidence-based intervention is delivered at school, so it addresses two micro-level influences: school and peers. If combined with a well-timed family-focused evidence-based intervention that targets the same age group, such as EFFEKT, positive outcomes could be enhanced, since, together, the two programmes address a broader range of micro-level influences and socialisation agents (peers and family) at developmentally appropriate times.

Both could be further enhanced through the use of related community-wide policy changes and environmental strategies (see Chapter 7). Through the simultaneous implementation of these interventions at both micro- and macro-levels, a team could strengthen the effects of each on the outcomes targeted by both. For example, effects of peer influence-focused evidence-based interventions could

be enhanced through environmental strategies, such as school policies or local municipal strategies that increase norms averse to substance use or alter young people's beliefs and lessen their intentions to use substances.

Evidence-based programmes

The following example interventions have been found to have promising results, according to several evaluations in the US and different European countries. We include these as inspirations for your own searches for a suitable intervention for your context. Here, we discuss Project Northland, STAD, CTC and PROSPER.

Project Northland is a universal prevention programme for young people aged 12-18. It targets multiple settings and has been adapted and evaluated in Croatia. By intervening on multiple levels, Project Northland strives to teach students skills that will help them effectively negotiate social pressure to drink, while directly modifying the social environment of young people (i.e. peers, parents, school and community). Its main intervention components include classroom curricula, peer leadership, youth-driven extra-curricular activities, parent involvement programmes and community activism. Project Northland has been rated as 'likely to be partially beneficial' in Xchange, which means that, although there is good evidence that it is effective in the US, some caution is advised, as further research is needed to show that it is also effective in European contexts.

STAD is a multi-component community-based approach for nightlife environments. Originally implemented and evaluated in Sweden, it is now being adapted for an

additional six European countries⁽³⁹⁾ with their differing nightlife conditions, such as big festivals, often in southern Europe.

The original version of STAD consists of three key strategic actions, which are outlined below.

- Community mobilisation: creation of a committee to raise awareness and increase knowledge concerning alcohol-related harms in the community. The committee comprises important stakeholders from the community, such as local police, the local council, the licensing board, owners of licensed establishments, health authorities and trade unions for licensed premises and their staff. This committee acts as an advisory group, meeting regularly to discuss alcohol-related issues and seeking to improve and develop policy.
- RBS training: implementation of RBS programmes.
- Enforcement: joint collaboration between the licensing board and local police to meet and discuss methods to better regulate and enforce established laws and RBS training. As part of the STAD project, a licensing board distributes letters to licensed establishments informing them of any reported (primarily police-recorded) occurrences of over-serving alcohol to patrons within their establishment.

Another approach to creating entire prevention systems in a community is CTC, a local community-based prevention package, which is summarised below. While some general detail is provided here, you are advised to find out more on the CTC website⁽⁴⁰⁾, as each society, region and country context will differ in its implementation.

⁽³⁹⁾ <http://stadineurope.eu/for-who/european-level/>

⁽⁴⁰⁾ <http://www.communitiesthatcare.net/>

CTC is a data-driven framework that uses local survey and archival data to help communities identify and prioritise needs based on risk and protective factors. Once needs are prioritised and the audience is targeted, a community coalition set up for the purpose chooses and implements evidence-based interventions that have shown to be effective in addressing their particular needs. CTC is not yet included in Xchange, but the Blueprints registry rates it as ‘promising’, meaning that it has good evidence of effectiveness.

The initiative consists of five core components (Figure 30):

- getting started — conducting a community readiness assessment;
- getting organised — engaging key stakeholders and forming a coalition of community stakeholders to oversee CTC activities;
- developing a community profile — using epidemiological data to identify risk and protective factors;
- creating a plan — using data to review evidence-based interventions designed to reduce the community’s identified risk factors, bolster protective factors and select the best option from a menu of effective interventions for people, their families, schools and communities;
- implementing interventions with high fidelity and regularly evaluating implementation — using data to make improvements.

Researchers found that, when communities in the US worked their way through these steps, their efforts were followed by positive changes in youth outcomes, including significant reductions in the initiation of alcohol and tobacco use, delinquency and violence, and significant improvements in corresponding protective factors for young people in CTC communities compared with control communities. In the original study, these reductions were

FIGURE 30
Communities That Care



sustained for 4 years and the significant difference in the initiation of delinquent behaviour persisted to the age of 19.

This model suggests that, with strong training and technical assistance, CTC coalitions can develop and build the capacity for prevention science planning. This leads to system transformation.

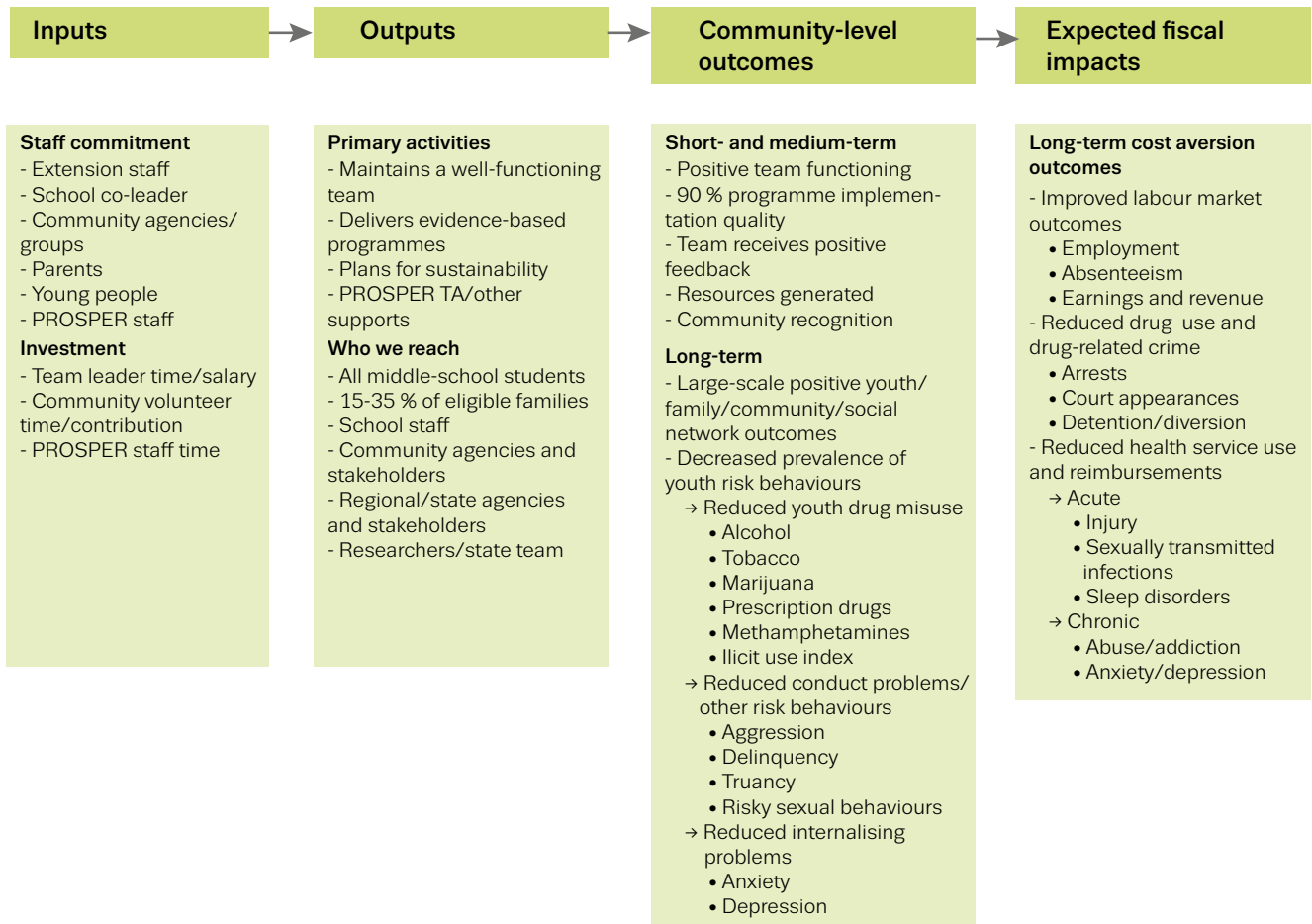
Typically, it takes communities about 1 year to 18 months to develop their plan. After planning is complete, communities are able to implement the effective prevention programmes and policies to address their prioritised risk and protective factors. This results in measurable reduction of risk factors and increase of protective factors within 2-4 years.

Finally, PROSPER is another community-based intervention that has been rated as ‘promising’ by Blueprints. The primary task of the delivery team is the sustained, high-quality implementation of evidence-based family and school interventions selected from

a menu of programmes that are vetted by the PROSPER scientists. Scientists lend their expertise to narrow the selection of evidence-based interventions for communities and recommend only the highest quality programmes. Scientists also continually review the literature to ensure

that subsequent research continues to support these programmes as the best options for targeted populations. The logic model below provides an example of how PROSPER might be planned and delivered, and the impacts that a community might expect (Figure 31).

FIGURE 31
PROSPER logic model



A sustainability model with eight strategies was designed to achieve the team's goals and meet objectives related to the goals. A general description of the eight strategies follows.

- Resource generation for programmes: the focus of this strategy is to generate financial, in-kind and voluntary support to maintain both the family- and school-based programmes and to increase the programme offerings as time goes on.
- Community/school positioning: this strategy ensures that the PROSPER team and programmes are viewed positively in the community and that the school and community as a whole recognise how the team contributes to the betterment of young people and families.
- Programme quality management/planning: this strategy includes all the steps required to monitor programmes for quality implementation, including securing observers, scheduling observations, collecting data, providing feedback and so on.
- Strengthening partnerships with schools/other organisations: this strategy includes team activities that create an interdependent relationship among the team, the school and community groups so that PROSPER activities and programmes serve to meet mutually beneficial goals.
- Strategic communication planning: this strategy focuses on the development of communication plans involving media and other awareness-building efforts to generate enhanced awareness of PROSPER activities, financial support for programmes and participation in the family-based programme.
- Planning for recognition and rewards: this is an important strategy for sustaining interest in and support for PROSPER team activities and programmes. Rewards and recognitions can include team members,

programme participants and supporters from the school and community.

- Monitoring team structure, roles and participation: to ensure that the team continues to perform effectively and that team members remain enthusiastic about PROSPER efforts, team leaders and prevention coordinators consider ways to improve the team's functioning. Together with the team, the team leader and prevention coordinator develop a continuous improvement plan that addresses all of the strategies in the sustainability model as appropriate.
- Conducting effective, regular meetings: because a well-functioning team is integral to the sustainability of programmes, PROSPER fosters regularly scheduled meetings. The effectiveness of these meetings is discussed as part of a continuous improvement plan.

Building an effective community team

This chapter has demonstrated the value of using community teams to support prevention efforts. Effective community teams help ensure success by bringing many individuals and their skills, experience, and personal and professional networks together to focus on the effort. Effective community teams also ensure sustainability because the effort is no longer 'person-dependent' but has the support of many.

The concept of teamwork is nothing new. However, developing an effective team and ensuring that members are engaged and working well as a whole is easier said than done. There are several factors that can hinder community team success, including a lack of goals/mission or a lack of focus, unclear expectations, poor leadership, irregular meetings with little or no feedback on

the success or failure of team efforts, under-representation on the team of the populations served and conflicts among members related to conflicting agendas.

In addition to barriers at the local or team level, community environments, policies and other factors create barriers to effective evidence-based intervention programming efforts. National and international groups and government organisations can support the use of evidence-based interventions; however, they are not widely used. Some of the reasons these interventions have not been used in communities have to do with the challenges faced by policy-makers and the environments within the communities themselves. Policies and funding decisions may be time limited (triggered by a tragic event, such as a high-profile drug-related death in the community) and short term.

Well-intentioned community teams may also be challenged by a lack of infrastructure or support systems. Priorities may shift before interventions become established, or resources may be short term or erratic. In addition, sustaining the intervention in the long term requires a fundraising strategy that includes marketing, promotion and the building of a diverse portfolio of resources (financial and non-financial) that continue from year to year. Most evidence-based interventions do not have this type of information built into their intervention training, and implementers may not already have this skill set.

Effective teams can mitigate or overcome such barriers if they address key components such as the roles, responsibilities and qualities of team leaders and members, the team structure and long-term team engagement.

When forming a team, it is important to think about the group collectively. Key organisations within the community should be represented, especially if these groups have access to most of the young people and families in the community who are potential intervention participants. It is also helpful to find people who can represent the audiences that the team tries to reach so that community needs are well understood. Effective teams include members with a diverse set of skills, knowledge and experiences so that all members are able and needed to contribute to the effort. The group should have a set of social and professional networks that is broad based and represents different perspectives in the community. Furthermore, keeping in mind that this group is a working team, a team that is representative of the community should be small enough so that all members can be actively engaged.

Effective teams have clearly identified roles for individual members that allow them to use their strengths and personal skill sets.

| Mobilising resources and increasing capacity

The EDPQS help to identify strengths and resources in the community. Once those are identified, making local connections with individuals and groups in the community will take time. The types of connections to be made will depend upon the goal of the outreach effort. Is the connection intended to link with existing provider plans to enhance local intervention efforts or recruit programme participants, or might the goal be to increase local awareness of the need for evidence-based interventions? Is the intent of the connection to build a partnership or engage people with skills and talents to conduct a fundraising effort?

The intent or goal of the collaboration will help determine the type of connection to be made. Regardless of this, these connections must be viewed as positive to maintain the favourable reputation of the team and their efforts. To make positive local connections with individuals and groups, the community team effort must achieve the following goals:

- Identify community 'hubs'. Hubs are those places in the community where people naturally gather, such as a community centre or the offices of a prevention organisation that are in an accessible location.
- Be creative in ways to involve people. Offer a variety of opportunities for individuals to be involved. These opportunities should be convenient to the individual and take into account their interests and skills.
- Support people who are the 'drivers' of community work. In every community, there are people who are leaders in gathering individuals around a cause and individuals who are the 'drivers'.
- Offer short-term or specific task opportunities. Some individuals will not be able or willing to commit to a long-term prevention effort. These people may be

limited by their availability, conflicting work schedules and/or personal commitments. Rather than not engaging this large pool of resources, it is important to consider what opportunities there may be for them that are very specific, focus on a task and could be completed within a designated time frame.

When resources are limited, it is important to consider how these resources can be most effectively and efficiently utilised. Firstly, a community team may link their effort to an existing effort. Every community entity, school, governmental organisation and civic group has plans that direct its work. Consider how these plans may link to the community team effort and identify mutually beneficial opportunities to work together.

Secondly, particular opportunities may emerge that reflect local concerns or issues, such as the expansion of local tourism, the redevelopment of the night-time economy or community crime prevention. These, sometimes pressing, issues can be a vehicle to motivate people and provide opportunities to leverage community skills and resources for broader benefit.

10

CHAPTER 10

Advocacy for prevention

It is not easy and straightforward to influence policy-making to prioritise prevention or to get people to support the implementation of your intervention. Most of the time, a lot of coordinated work is needed to precede this, and this is referred to as 'advocacy'. The Triangle Research Group (Silvestre et al., 2014), a research consortium on alcohol policy in Slovenia, describes advocacy as 'a political process by an individual or group, which aims to influence public policy and resource allocation decisions within political, and social systems and institutes' (p. 14). The European Centre for Disease Prevention and Control (ECDC, 2014) identifies advocacy as a 'key strategy for health promotion and public health' (p. 1).

Advocacy efforts using science-based information need to be part of any intervention. While efforts are often devoted to persuading decision-making bodies to introduce new health-promoting policies, laws and regulations, advocacy is also necessary to continue support for such actions after they have been implemented. Generally, a case can be presented that documents harms caused by substance

use (to the individual, others and society) and discusses how prevention programmes and policies might reduce some of these consequences (Table 15). Such efforts may contribute to changing beliefs, attitudes and norms about substance use and help decision-makers to better understand effective responses.

The ECDC (2014) describes how advocacy simultaneously occurs on several levels (regional, local, national), while VeneKlasen and Miller (2002) adds a multi-dimensional perspective whereby different strategies are used to accomplish the same goals. Advocacy strategies should also proceed in collaboration with representatives of affected groups, decision-makers and other stakeholders (Peloza, 2014). Relevant actions can be diverse and may include activities such as persuasion, protest marches or litigation (e.g. a well-publicised court case), but also public education and the use of the media to influence public opinion (see also Chapter 8). While advocacy can be a stand-alone activity, it can also be a component of a complex prevention intervention (ECDC, 2014).

TABLE 15

How to present a case

How you present the case
1. State the problem
2. Outline the impact on the substance user
3. Outline the impact on the rest of the public or non-users, especially young people
4. Include available evidence-based interventions and policies that have demonstrated effectiveness

For effective policy advocacy, Mercer and colleagues (2010) suggest the value of:

- clearly outlining the relationships between health problems, interventions and outcomes;
- systematically assessing and synthesising the evidence;
- using a credible group and rigorous process to assess the evidence;
- engaging key partners and stakeholders throughout the production and dissemination of the evidence and recommendations;
- undertaking personalised, targeted and compelling dissemination of the evidence and recommendations;
- involving multiple stakeholders in encouraging uptake and adherence to policy recommendations;
- addressing sustainability.

However, the findings from policy studies suggest there is not always a clear relationship between undertaking the types of activity described by Mercer and changes in policy or prioritisation of prevention programmes. It is important to be realistic about what might be achieved through advocacy alone and to draw lessons from insights into the policy-making process. Cairney (2016), for example, describes how the policy-making process can often appear irrational and complex to those on the outside. When

making decisions, policy-makers often take a different view of what constitutes relevant and useful evidence. While prevention professionals and advocates of evidence-based prevention may view evidence from rigorous research trials and evidence syntheses as a rational basis for decision-making, policy-makers will consider this alongside other sources of 'evidence' and considerations, such as feedback from public consultation, public opinion and values, advice from trusted colleagues, political manifestos and commitments, and their own professional histories and experiences. While some decision-makers might have a good understanding of prevention and the need to respond to substance use in an evidence-based manner, it is unusual for more senior figures to have the same level of awareness, or even interest, in such matters. Senior policy-makers also have to act through consensus, and often this means balancing the demands and expectations of multiple competing interests, particular in areas of activity that can be controversial, such as responses to substance use. This consensus also extends to the balance that has to be made within governing bodies, where there might be competition for limited resources or prominence and power in national strategies.

Discussion of these challenges is not intended to discourage advocacy activities but, by understanding the realities of the decision-making process, it is possible to optimise outcomes, identify key points of focus and reduce the frustration that decision-makers 'simply are not listening'. For example, Cairney suggests that rather than just presenting solutions to societal problems, such as the implementation of prevention programmes, advocates must work to shift awareness to these problems and present reasons for policy-makers to prioritise them. Advocates should also be able to present ready-made, evidence-based responses to these problems once attention is grabbed, and these must be both specific and technically and politically feasible. Once attention

has been raised and policy-makers have a motive to act, advocates must act quickly, as 'windows of opportunity' within a favourable policy environment are often rare and brief. For example, if local government is moved to act because of a high-profile substance-related death, prevention advocates must also be prepared to act quickly to promote the use of evidence-based programmes as part of a long-term strategy, before the window of opportunity closes or before other, non-evidence-based, approaches have been prioritised. Policy critics often focus on weaknesses in new proposals, especially if the suggestions disrupt the status quo, and so advocates must have already undertaken critical self-review to anticipate what problems might be raised.

Successful advocacy approaches tend to combine relevant scientific evidence with emotional appeals that put a 'human face' on a story and intelligently exploit emerging opportunities, by framing suggested responses to be consistent with the political and personal beliefs of decision-makers and what is already known about what they care about. You are unlikely to be successful if you bombard stakeholders with scientific evidence and hope it will change minds and foster support. You must influence how they understand a policy problem and supply the concise evidence that is most relevant to this understanding. Furthermore, keep in mind that, while

prevention professionals or other experts might possess excellent technical knowledge about how to reduce the health or social impacts of substance use on society, it does not necessarily mean that they possess the skills required to persuade policy-makers to support a particular response. This is why the most effective advocacy groups develop a broad skill set across a coalition of different stakeholders and organisations.

An important consideration is the evaluation of advocacy efforts. The ECDC (2014) recommends using a theory of change approach to aid this process, as it explains how and why activities are expected to lead to desired outcomes.

The general principles of evaluating prevention interventions/policies can be applied to advocacy. These evaluations are data based and systematic, and use known methods such as interviews or surveys. Like process evaluation or outcome evaluation, we can also evaluate our advocacy efforts to inform our strategies, analyse results or build the capacity of our advocacy workers. The difficulty in evaluating advocacy efforts lies in the rapidly changing activities and outcomes in an advocacy strategy. This is also easily influenced by unpredictable, contextual factors. Coffman (2007) therefore advises that you report more regularly, in 'real time', after any significant event or action.

Final reflections

This curriculum has presented an introduction to what prevention science and evidence-based prevention work means and why it is important. The epidemiology of substance use in Europe was discussed to understand the scope of our work, whereupon an introduction to prevention theories and behaviour change techniques was given to understand the mechanisms of behaviour change.

The EDPQS and the International Standards (UNODC, 2013) were discussed as major tools for guiding our prevention work and selecting and implementing the best evidence-based interventions and/or policies available at the moment. We have also learned how to evaluate our interventions and policies.

Diverse settings, such as the family, school, workplace, community, media and larger environment, have been presented in terms of their specifics in prevention work. This should help us in creating or selecting effective prevention interventions and/or policies with respect to

our target population and considering the challenges and barriers present.

It is our hope and aim that, with this knowledge and training, you will be a valuable force to strengthen prevention work in your region and context, adding to the strong European prevention workforce.

Such a workforce is key to tackling the coming challenges and tasks of translating the available evidence into widespread and routine prevention practice in Europe. The EMCDDA response guide (EMCDDA, 2017b) and the support-to-practice strategy of the EMCDDA therefore aim to provide policy-makers and practitioners with tools, resources and strategies for the successful implementation of evidence-based prevention in Europe. This focus on implementation will offer decision-makers feasible alternatives that are more effective than some popular approaches but carry less potential for harm.

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Annex 1

Overview of methodology

Our methodology was based on the guidelines of the European Prevention Standards Partnership for adaptation and dissemination of quality standards in different contexts (EDPQS Toolkit 4 ⁽⁴¹⁾). It describes how to proceed with an adaptation and what to consider during this process.

The HoGent team, based in the Department for Prevention Research at University College of Ghent, was defined as the working group. The 'core group' consisted of the working group and Zili Sloboda (Applied APSI), Michael Miovsky (Charles University Prague), Gregor Burkhart (EMCDDA) and Jeff Lee (International Society of Substance Use Professionals), who are all experts in the field of substance use prevention. The main objective of the core group was to avoid, where possible, changes to the core components of the original UPC while making important surface adaptations to the European context. A final project group, the 'reference group', consisted of all 11 partners involved in the UPC-Adapt project. These included representatives from Belgium, Germany, Estonia, Spain, Croatia, Italy, Poland and Slovenia.

The adaptation process started by closely reading the UPC Trainer Manual that was developed by APSI. After the working group read curriculum 1, i.e. the general EUPC introductory

curriculum, it created a working document, which described the adapted product and the preliminary categorisation of possible adaptations. This categorisation drew distinctions between 'deep' and 'surface' adaptations, along with the rationale for any suggested changes. Surface adaptations are, for example, adaptations to places, examples, data, expressions and idioms. Deep adaptations are categorised as adaptations to context (such as social and political organisation), culture (norms and values), technical aspects (graphics or illustrations) and content (removals, changes or additions without altering core elements). This preliminary work was first discussed by the working group. After a consensus was reached, this preliminary categorisation and the working document were reviewed by the core group.

A similar process was followed in the process of adapting the other curricula: pharmacology and physiology (curriculum 2), monitoring and evaluation (curriculum 3), family-based prevention (curriculum 4), school-based prevention (curriculum 5), workplace-based prevention (curriculum 6), environment-based prevention (curriculum 7), media-based prevention (curriculum 8) and community-based prevention (curriculum 9). First, consensus in the working group was reached and then proposed adaptations were discussed with the core group. Regular consultations took place among the core group by video conference and email.

A preliminary draft of the curriculum was completed in June 2017, and the reference and core groups reached consensus on the first draft in October 2017.

⁽⁴¹⁾ <http://prevention-standards.eu/toolkit-4/>

Annex 2

Developmental stages between the ages of 3 and 16 years

	Social	Language	Physical	Intellectual	Emotional	Behavioural
3-4 years	Shares, plays well with others, will play alone, uses spoon/fork to eat, personal hygiene	Recites numbers but can only count to 3, converses, recites rhymes and songs, has favourite story	Can thread beads, uses scissors, tiptoes, can pedal and steer, can balance, has spatial awareness	Can build a tower, paints, can draw a head for a person, holds a pencil properly	Can wait for needs to be fulfilled, has sense of humour, understands past and present	Has ability to bargain but not reason, uses imagination, fears dark and abandonment, enjoys humour
5-7 years	Shares, applies imagination to play, dresses and undresses	Enjoys stories and applies them to play, understands double meaning of words	Construction toys, colouring, games, plays ball games, dances, hops, skips	Can copy letters, counts on fingers, adds details to pictures, is aware of time	Is caring about friends and babies, has better control of conduct and behaviour	Expresses anger and frustration less with action and more with words, is more independent
8-12 years	Is independent from parents, has sense of right and wrong, has sense of future	Can read and write, is more articulate, holds conversations, can debate, relates events	Variation in physical appearance more notable, early puberty in girls, improved eye-hand coordination	Talks about thoughts and feelings, thinks more logically, has developed maths and literacy skills	Learns by observation and talking, gives support in stressful times, is able to emphasise	Joins clubs and associates more with peers, wants acceptance of peers
13-16 years	Spends more time with peers, forms identity, tests limits, more adult role models	Clarity of thinking, expression of own beliefs	Puberty for both sexes, rapid musculoskeletal growth, increased stamina	More concern for others and community, questions and challenges rules, explores new ideas	Experiencing hormonal changes, preparing for independence from family, acting out	Increases desire for privacy, spends more time with peers

Annex 3

Glossary

Adaptation	A modification of programme content to accommodate the needs of a specific consumer group.
Advocacy	A political process initiated by an individual or group, which aims to influence public policy and resource allocation decisions within political and social systems and institutes (Peloza, 2014).
Aetiology model	This model includes the micro- and macro-level environments that influence people as they grow from infancy to adulthood. These environments interact with the personal characteristics of individuals that place them at more or less risk of substance use and other problem behaviours. These environments operate at two levels: the macrolevel involves the bigger environment of the neighbourhood, community, region or country, while the microlevel involves the environments closer to the individual, such as family, peers, school, community organisations and the workplace.
Audience	The target of a communication; to whom a message is directed.
Behavioural interventions	These interventions target the individual directly with efforts to modify their attitudes and behaviours in regard to substance use or through others, such as parents, teachers and employers. This contrasts with environmental interventions, which primarily target the context where substances are obtained or used.
Best practices	The best application of available evidence to current activities in the drugs field.
Brief interventions	Systematic, focused processes that aim to investigate potential substance use and motivate individuals to change their behaviour. The goal is to reduce substance use before the individual experiences harm or develops more risky use behaviours or substance use disorders.
Campaign, media	A series of planned activities or a combination of activities designed to persuade individuals and groups.
Cognitive contest	Counter-argumentation; a mental resistant reaction to a persuasive message that is contrary to the individual's established beliefs.
Cognitive skills	The ability of people to think for themselves and address problems in a reasoned way, conceptualise and solve problems, draw conclusions and come up with solutions through analysis.
Collaborative evaluation	A collaborative approach that involves prevention programme and evaluation staff working together in a team. Other members of the team in a collaborative model may include stakeholders with an interest in the outcomes of the prevention intervention. However, it is important that team roles, activities, responsibilities and interactions be clearly defined, and clear role differentiation is also required.
Communication	The message that is broadcast by the media; it can involve only words, only pictures or a combination of the two. If developed properly, the communication that is delivered and the message that the audience receives should be the same.

Community	A geographically defined entity, where effective prevention systems can be developed and implemented. Most prevention coordinators work at various levels of the community, which can include the broader community — this involves the macro-level environment and also includes many micro-level settings.
Community-based multi-component initiatives	These generally involve a wide range of evidence-based interventions and policies that can have an impact on many age groups within many settings. Typical efforts include support for the enforcement of tobacco and alcohol policies, interventions and policies in schools and family services.
Community-level evaluation	Measurements that reflect the general or average beliefs, attitudes or values across a large group (e.g. a community, school, nation), in contrast with individual-level evaluations.
Cost-effective	Economically worthwhile.
Demand reduction	Preventing or at least delaying target group substance use by attempting to promote values, norms, beliefs and attitudes against substance use and to improve resistance skills.
Drug testing	Chemical analysis of biological samples (including blood, urine, hair and sweat) to detect the presence of drugs or their metabolites (NB this is different from drug checking, which is designed to chemically analyse drug products).
Effectiveness trials	These test if interventions are effective under 'real-world' conditions or in 'natural' settings. Effectiveness trials may also establish for whom and under what conditions of delivery the intervention is effective.
Efficacy	This is the extent to which an intervention (technology, treatment, procedure, service or programme) does more good than harm when delivered under optimal conditions.
Empirical	Based on observation and experiment.
Empirically validated research	Research based on observation and experiment that has been systematically confirmed and corroborated.
Environmental interventions	These involve policies, regulations and laws that control access to and the availability of substances, especially to young people. They also affect the substance use norms as a result of the laws themselves and their enforcement. Most research relates to alcohol and tobacco control efforts. Environmental interventions often address the context where the behaviour — substance use — takes place, whether in the community or in specific places such as alcohol retailers, parks or entertainment venues.
Epidemiology	The study of the distribution and determinants of health-related states or events (including disease), the onset of the health-related state/event/disease (incidence), the existing cases of the health-related state/event/disease (prevalence) and the application of this study to the control of diseases and other health problems.
Evaluation	A rigorous and independent assessment of either completed or ongoing activities.
Evidence-based practice	Systematic decision-making processes or provision of services that have been shown, through available scientific evidence, to consistently improve measurable client outcomes. Instead of tradition, gut reaction or single observations as the basis of decision-making, evidence-based practice relies on data collected through experimental research and accounts for individual client characteristics and clinician expertise (Evidence Based Practice Institute, 2012).
Evidence-based prevention interventions and policies	Prevention interventions and policies that have been shown through research to be effective in preventing the onset of substance use.

Exposure	This refers to the reach of the media — the extent to which the communication reaches the intended audience.
External validity	The extent to which the outcomes from a prevention intervention can be transferred to another population or condition.
Family	Families can be defined in simple terms by their structure, meaning who is considered to be part of the family, and by their function, meaning what the family's purpose is and what a family does. Definitions of who constitutes 'family' may differ between countries. In the US, Canada and many European countries, for example, 'family' is most commonly defined as the nuclear family, meaning mother, father and children. In other countries, 'family' may include extended members, such as grandparents, aunts, uncles and cousins.
Implementation	The actual delivery of a prevention intervention, policy or preferably multiple interventions and policies that research has shown can have a greater impact on populations.
Implementation systems	Several components of interventions that are connected to achieve a specific outcome; a system often involves special sequencing of the components to be effective.
Individual-level measures	Measurements that are taken on individual respondents, rather than across entire groups.
Infrastructure	The basic physical and organisational structures and facilities needed for the operation of a society. In this curriculum, infrastructure includes the community teams, training and technical assistance, and financial and human resources needed to implement evidence-based prevention interventions and policies.
Internal validity	The extent to which the outcomes from a prevention intervention can be accredited to the intervention itself.
Intervention	An action that focuses on altering substance use trajectories by promoting positive developmental outcomes and reducing risky behaviours and outcomes.
Intervention content	The objectives of the intervention and the information, skills and strategies that are used to achieve the desired objectives. For example, it may include both peer refusal skills and social norm development, or family communication training.
Intervention delivery	How the intervention or policy is to be implemented and how the intervention or policy is expected to be received by the target audience, for example using interactive instructional strategies for adolescents and adults, offering parenting skills programmes during times that are convenient for families and monitoring the implementation of an intervention or policy to enhance fidelity to the intervention's core elements.
Intervention fidelity	The measure of how closely the way an intervention was delivered compares to how delivery was originally planned. Implementation quality is often quantified with measures of fidelity, dose, quality of delivery and elements added to the intervention protocol.
Intervention mediators	The factors that the intervention intends to manipulate and that are directly linked to the desired outcomes.
Intervention structure	How the prevention intervention or policy is organised and constructed, for example the necessary number of sessions or boosters, or the organisation of sessions.
Macro-level environments	Examples are the social and physical environment/neighbourhood, the economy, the political environment and social and natural disasters.

Mass media	The general category of communications, including television, radio, broadcasting and newspapers, that reach a broad group of people.
Media	Any form of mass communication. This can involve television, radio, magazines, websites, newspapers, posters, billboards, social media including Facebook, Twitter and YouTube, and so on.
Media-based prevention	Use of the mass media, usually through coordinated campaigns, to prevent the initiation of substance use or to encourage individuals to cease use of a targeted substance.
Messaging	Process by which persuasive communication is developed; it is concerned with the persuasive components built into communications to influence people's beliefs and actions.
Micro-level environments	Examples are family, peers, school administrators, religious leaders, workplace administrators and colleagues.
Monitoring (process evaluation)	The ongoing process by which stakeholders obtain regular feedback on the progress being made towards achieving their goals and objectives.
Monitoring, parental	Parents knowing where their children are and what they are doing.
Non-communicable diseases	A disease that cannot be passed from one person to another.
Outcome evaluation	A process to characterise the extent to which the knowledge, attitudes, behaviours and practices have changed for those individuals or entities who received the intervention or who were targeted by the policy compared with non-recipients (often thought of as short- and intermediate-term outcomes). Long-term outcomes relate to the desired end product of the intervention, which, in our case, is reduced or elimination of substance use. Often, evaluations end with the long-term outcomes.
Persuader	The individual or entity trying to change the opinions, attitudes, beliefs or behaviours of others.
Persuasion	The act of influencing others to adopt a belief, set of beliefs or position or to change behaviour(s).
Policy-maker	Someone who decides new policies for a government, political party, etc. (Cambridge Dictionary, 2017).
Prevention	The act of stopping something from happening or of stopping someone from doing something (Cambridge Dictionary, 2017).
Programme	A specific manualised and named intervention.
Protective factors	Characteristics that reduce the likelihood of substance use.
Psychoactive substances	Substances that, when taken in or administered into one's system, act on the CNS to affect mental processes, e.g. cognition or affect. This term and its equivalent, 'psychotropic drug', are the most neutral and descriptive terms for the whole class of substances, licit and illicit, of interest to drug policy. 'Psychoactive' does not necessarily imply dependence-producing and, in common parlance, the term is often left unstated, as in 'drug use' or 'substance use' (WHO, n.d.).
Reach	In media, the number of viewers exposed to a communication.
Receiver	A person or group to whom communications are directed.
Reinforcement	In persuasion, an inducement to accept the information being delivered.

Reliability of a measurement	How stable the measurements are when repeated over time. Also termed 'consistency'.
Research	A systematic investigation, including development, testing and evaluation, designed to develop or contribute to generalisable knowledge.
Risk factors	Characteristics that interact with personal vulnerabilities to increase the likelihood of substance use.
School	A place where children go to be educated (Cambridge Dictionary, 2017).
Socialisation	A lifelong process by which culturally appropriate and acceptable attitudes, norms, beliefs and behaviours are transferred and internalised.
Source	The person or entity delivering the persuasive message.
Stakeholder	A person, group or organisation that has interest or concern in an organisation affected by a course of action.
Stigma	A set of negative and often unfair beliefs that a society or group of people holds about something; disapproval of personal characteristics or beliefs that are against cultural norms. Stigma often leads to status loss, discrimination and exclusion from meaningful participation in society.
Substance use	Substances can be defined as tobacco products, alcohol, inhalants and other substances such as heroin, cocaine, cannabis and psychoactive prescription drugs (for non-medical use).
Substance use disorder	Substance use disorders span a wide variety of problems arising from substance use. These include dependence and physical harm, but also adverse social consequences, such as failure to meet social, family, educational or work obligations. Importantly, the individual will continue to use substances despite having experienced recurrent psychological and physical harms. The most well-known descriptions of substance use disorders are provided in the American Psychiatric Association's DSM-V and the WHO's ICD-11.
Supply reduction	Developing reasonable, clear and consistently enforced policies targeting the possession, use and sale of all substances, including alcohol and tobacco, on and around school grounds and at all school-sponsored events.
Sustainability	The long-term, high-quality implementation of evidence-based interventions and the implementation systems that support their continuation.
Target group	The group of people that prevention professionals hope to influence or to which the persuasive attempts are directed.
UPC-Adapt	The name of the project that enhanced the adaptation of the UPC. This project was funded by the European Commission. Eleven partners from nine European countries cooperated in this project.
Vulnerability	An individual disposition, determined by genetic, psychological and social factors, that makes the development of risky behaviours and mental disorders more likely. The obverse is known as resilience (Federal Office of Public Health, 2006)

Annex 4 Infosheet

Guidelines

- **EMCDDA — Quality Standards**
The EDPQS provide a set of principles to help develop and assess the quality of drug prevention. They offer a comprehensive resource outlining all the elements of drug prevention activities. The EDPQS were developed by the European Prevention Standards Partnership from a research project co-funded by the European Union. The Partnership undertook a review and synthesis of existing international and national standards as well as consultations with more than 400 professionals in six European countries to identify what quality standards should apply to drug prevention activities ⁽⁴²⁾.
- *Council of the European Union (2015), Council conclusions on the implementation of the EU action plan on drugs 2013-2016 regarding minimum quality standards in drug demand reduction in the European Union.*

- **UNODC/WHO — International Standards on Drug Use Prevention (second updated edition)**

These global International Standards summarise the currently available scientific evidence, describing interventions and policies that have been found to result in positive prevention outcomes and their characteristics. Concurrently, the global International Standards identify the major components and features of an effective national drug prevention system ⁽⁴³⁾.

- **Best practice portal — standards and guidelines:**
<http://www.emcdda.europa.eu/best-practice/guidelines>
- **Health and social responses to drug problems: a European guide:** <http://www.emcdda.europa.eu/responses-guide>

⁽⁴²⁾ <http://prevention-standards.eu/standards/>

⁽⁴³⁾ http://www.unodc.org/documents/prevention/standards_180412.pdf

Registries

Name	Country/region	Website
Xchange	Europe	http://www.emcdda.europa.eu/best-practice/xchange
Best practice portal	Europe	http://www.emcdda.europa.eu/best-practice_en
Green List	Germany	http://www.gruene-liste-praevention.de/nano.cms/datenbank/information
Evidence-based prevention	Spain	http://prevencionbasadaenlaevidencia.net
Centre for Analysis of Youth Transitions database	United Kingdom	http://cayt.mentor-adepis.org/cayt-database/
Blueprints	United States	https://www.blueprintsprograms.org
National Registry of Evidence-Based Programs and Practices	United States	https://www.samhsa.gov/nrepp
Preventing Drug Use among Children and Adolescents	United States	https://www.drugabuse.gov/sites/default/files/preventingdruguse_2.pdf



About this publication

This handbook has been developed with the primary purpose of providing specific reference material for the European Prevention Curriculum (EUPC) training courses. It also serves to provide a more general introduction to prevention science and, in particular, to science-based interventions. The training curriculum has been developed by a European project entitled UPC-Adapt, which was co-funded by the European Commission.

About the EMCDDA

The EMCDDA is the central source and confirmed authority on drug-related issues in Europe. For over 20 years, it has been collecting, analysing and disseminating scientifically sound information on drugs and drug addiction and their consequences, providing its audiences with an evidence-based picture of the drug phenomenon at European level.

The EMCDDA's publications are a 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. Based in Lisbon, the EMCDDA is one of the decentralised agencies of the European Union.



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