

# Position of the European Society for Prevention Research on ineffective and potentially harmful approaches in substance use prevention

## Act ethically: avoid harm, use science

The European Society for Prevention Research (EUSPR) is concerned about so-called prevention strategies, which are based on predominantly providing information to adolescents and younger children about the risks and dangers of substance use. Reports from the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) suggest that these approaches have been shown to be used in Europe to a large extent. Particularly controversial forms of such informational approaches are so-called shock tactics, where strong imagery or accounts (also by ex-substance-users) about the consequences of substance use are conveyed to children and adolescents. We are concerned because these are not only ineffective and expensive, but they can also be actively harmful, resulting in reactions that are opposite to those sought.

Testimonies of ex-drug-users or theatre plays focussing on the extreme outcomes of substance use are reported in several countries. One of the most marketed examples of such approaches is a mobile showroom that presents strong virtual reality scenes and imagery to adolescents (mostly between 12 to 17 years of age). It allegedly uses interactive hands-on education, involving all the human senses in order to change adolescents' understanding of both legal and illegal drugs. The groups of young people guided through this touring exhibition are meant to experience the worst outcomes of substance use through use of appealing audio-visual techniques. The emotional responses and strong impressions that young people experience at and shortly after these exhibitions are typical for scare tactics, even if some proponents of these interventions claim that there is no intent to scare.

The EUSPR's ([www.euspr.org](http://www.euspr.org)) aim is to identify important advances and insights in prevention sciences over the past twenty years, and to put them into practice across Europe. Its members - scientists, practitioners and policy makers engaged in science-based, safe prevention - are from all over Europe and beyond. We know that showing "the kids understand" is no proof that "the kids" will then change behaviour. Yet we know how hard it is to actually prove the effectiveness of prevention in changing and sustaining behaviour, and how hard it is to develop effective interventions and then apply them as broadly as possible. We are also aware of how words in this field can be misleading: very often reports that "they liked it" or they "they were very impressed" are considered as proof of "effectiveness". At the same time, we feel frustrated that tried-and-tested methods to subtly induce youth to act in safer and more healthy ways in a long-term perspective often remain ignored and unused.

Therefore:

## We understand the attraction of “doing something”

1. We understand that decision makers, particularly at local and regional level and with a political mandate, are prone to invest in interventions that convey a strong, visible and appealing message to the public that “finally something is being done”; and they rightfully want to involve civil society organisations at various levels.
2. We understand why parents, school authorities, policy makers and police often find the idea very appealing and plausible: that young people would engage in substance use because they had not been warned with sufficient intensity about the perils of substance use.
3. We understand why even experts in other fields, such as medicine, pharmacology, law enforcement or political sciences, are often attracted by the thought that young people act against established better knowledge because the message about the perils of substance has not properly been conveyed to them, or not by the right people, or not credibly and scientifically enough, or not by the most attractive and modern techniques.

These three plausible assumptions are indeed effectively used by the proponents of informational and scaremongering interventions which are sometimes very sophisticated, from an audio-visual perspective. Many years ago, it used to be common sense that imprisoning drug users would deter young people from using or that it would be best if parents taught their offspring how to drink alcohol at home. Since then, science has shown these assumptions to be completely erroneous by pointing to overwhelmingly non-significant and even adverse effects of these approaches on adolescents’ drug-related attitudes and behaviours.

Advocates of these approaches also tend to claim that they are very effective and have been scientifically evaluated. Yet, they are not. The available reports about these interventions fail to show robust evidence of effectiveness, and they do not satisfy respectable standards of scientifically sound evaluations.

## But, does the science support the attraction?

Many studies have identified the risk factors that lead to substance use, including reviews of the international literature on substance use or prevention. Lack of information or lack of awareness about substance use dangers have not been identified as important risk factors in these reviews of research.

Conversely, some studies even indicate that the level of information can be associated with increased substance use. This means that we should think carefully about what information we provide and in what ways.

Thus, it is seemingly not the lack of



**Such interventions may actually increase interest in substance use among sensation-seeking young people**

information that makes young people use psychoactive substances. This is the same for adult populations: We can assume that physicians are – most of all people – aware of the health consequences of tobacco smoking. Yet, an important number of them (e.g., 25% in Italy) do smoke themselves.

Neuroscience shows that early-manifesting traits such as difficulties in maintaining cognitive, affective and behavioural control lead to both early initiation of substance use and rapid escalation into problem use. Consequently, techniques and methods that can evoke strong emotions or even fear (e.g., interactive simulations) are therefore likely to be actually inspiring for those who are attracted by risk, danger and new sensations. We remind readers of the effect of the book (and later the movie) by Christiane F. “We Children from Bahnhof Zoo”. The enormous success of the book among teenagers at its release in 1975 was followed by an unprecedented rise in heroin addiction in Germany.

Neuropsychology explains why information provision does not deter young people from drug use and other problem behaviours: because at their age, behaviour is determined more by social context than by individual choice. Adolescents respond more intensely to emotional and social stimuli and have increased awareness of their peers’ opinions. Reward seeking is increased in the presence of their peers when the brain’s socio-emotional system is stimulated. The interplay of these processes explains why adolescents take risks like substance use more often in peer group environments. Besides this, neurobiological imbalances may result in impaired judgement of risk. Therefore, it seems to be normative, biologically driven, and to a certain degree inevitable and a function of evolution that adolescents are prone to risk-taking explorations during adolescence. Mature judgement needs time to develop, and therefore strategies for simply giving information (i.e., cognitive–informative) are unlikely to make adolescents wiser, less impulsive or less short-sighted.

We therefore call to attention that the entire concept of proposals that use strong imagery to impress and inform young people is based on the flawed assumption that adolescent substance use (which is influenced by impulsivity, social interaction and automatic processes) could be addressed by such information and cognitive processes alone. Even if the emotion arousal scenes are supposed to be discussed and put into context later in the classrooms, such conversations about drugs and their effects are useless if they are not embedded into high-quality interventions that actually change behaviour, account for socio-behavioral environments and peer influences.

We emphatically remind readers that “effective” in prevention usually means that an intervention or strategy

has been tested using robust research methods and found to contribute to positive changes in participants’ behaviour or well-being. Interventions that cannot prove changes in behaviour such as reduced substance use, better social skills, more communication or better self-control simply cannot be considered “effective”. We would also note that all definitions of “good practice” require interventions to have objectives in terms of behaviour and to be based on a sound “logic model”, a “theoretical model” or a “theory of change”.



**That a programme is widely used says nothing about its impact**

Informational interventions that build on strong images, sceneries or use other scare tactics do not fulfil these criteria and are thus built on a shallow foundation.

If statements such as “they liked it”, “they were impressed”, “they want more” or “they remembered it” were valid arguments for “effectiveness”, then even substance use itself had to be considered “evidence-based” because users say the same about their drug use. Such statements are part of a satisfaction or appreciation study and not an effectiveness study, and hence indicate nothing about the level of effectiveness. The same can be said about implementation volume: that a programme is widely used and much in demand says nothing about its impact on youth behaviour.

## Beware of harm to our children

It is also important to point out that some prevention approaches can be harmful, as they might increase the interest in initiating substance use or in engaging in more harmful consumption practices. To give an example, *Scared Straight* and other prison visitation programmes assumed that confronting young people with real-life consequences of criminal behaviour would reduce their risk of becoming offenders themselves. However, [prevention science has shown](#) that these interventions are not only ineffective, but they can even increase the risk of committing a crime among young people.

One particularly well-researched example of harmful effects is the cannabis campaign of the US government in 2003. Like the mobile interactive showrooms described here and similar interventions, it was based on pictorial content about how cannabis is used and with which consequences. This campaign had overall zero effect on intentions to use cannabis, but - most intriguingly - it increased the willingness to try cannabis among the most innocent, namely those who hadn't heard about cannabis before. This happened because the campaign increased the perception (the “normative belief”) that everybody was using it.

In a similar manner, one key message of many audio-visual interventions are exaggerated claims, e.g., that there is an increasing drug problem in Europe. Yet, objective, comparable and reliable data collated by the EMCDDA suggest that this is not true for most countries and most substances. Saying that many people use illicit drugs might be a good sales tactic, but even well-intended informational warning interventions can be harmful if they increase so-called normative beliefs: here we see indirect evidence for harm, even if such mobile showroom interventions themselves have apparently not been directly evaluated (by means that would be scientifically considered as valid).

In light of prior prevention studies that resulted in even greater substance use, we are compelled to remind readers that much of prevention targets predominantly individuals, often minors, who have not explicitly expressed their consent or interest in receiving a particular intervention. Besides the ethical problems of subjecting youth to questionable interventions without their consent, an even bigger issue looms, namely our responsibility as adults to assure that any intervention directed to our children and adolescents is at least free of harm.

We therefore urge school authorities and decision makers to apply some simple rules:

- **Initiate** an intervention only if there is clear evidence from good studies that it has positive effects on behaviour and Well-being
- **Apply with caution** and with additional evaluations if the evidence for behavioural change is not fully proven, but promising
- **Don't apply it at all** if there is the slightest, even indirect, indication that harm might be caused. Examples of harm are: increasing the intention to use, increasing the belief that substance use is normal (accepted) or normative (everybody does it), making harmful substance use attractive, and showing participants how to use substances.

We therefore also urge parents and teachers to be very critical and mindful of the kinds of prevention strategies and prevention advocates they allow their children to be exposed to. In the same way as they would not appreciate their children being treated in school by untrained health staff, they should also actively oppose any practice in which their children are exposed to doubtful and ineffective approaches, such as those whose sole purpose is provision of information, testimonials of ex-drug addicts, shock tactics or random drug-testing pupils in schools. None of these methods have shown any positive effects on prevention in adolescents, and often have been proven to produce effects opposite to those planned and promised. Proponents of attention-raising information exhibitions about drugs suggest to parents and the public that there is a lack of action in prevention. Yet, precisely: effective and ethical prevention – unlike noisy activism – is often invisible and integrated into education or the youth work system, or works by creating safer and nurturing environments for young people to grow.

## Make use of science-based prevention

We do not question the value of providing young people with objective, credible and balanced information about substances; such information can easily and comfortably be introduced in any school curriculum. We do, however, question the value of delivering information and nothing else. Prevention is in reality substantially more than raising awareness: it is about changing behaviour – and sustaining those changes – and about positive socialisation. Information provision on its own contributes very little to this aim, as most of us can observe in our own lives: we are fully aware, for example, of the dangers of a sedentary lifestyle and unhealthy diet yet we do not necessarily change our behaviour.

## Prevention is more than raising awareness

Prevention programmes that have consistent positive outcomes in high-quality evaluation studies can be found in the [Xchange registry](#) of the EMCDDA.


“Outcomes” means: actual change in behaviour. None of the effective programmes in this and other national registries relies solely on information provision, and none uses scare tactics.

We call special attention to the criteria used to establish if an intervention is effective in this registry and its sister registries, for instance the [Grüne Liste Prävention](#) in Germany. A quick look there shows that the claims for effectiveness of mobile showrooms with strong imagery are entirely unfounded, since they do not fulfil the simplest requirements of even being considered to be “evaluated” from an evidence-based perspective.

Prevention practices and intervention principles that have been identified by periodically reviewing all available high-quality evaluation studies worldwide can be found in the [International Standards of Drug Use Prevention](#) by UNODC and in the [Best Practice Portal](#) of the EMCDDA. Consistently, information provision, strong imagery or scenery and the use of testimonials of ex-drug-users are flagged as ineffective there.

We are aware that science moves on and that its findings might change, and we acknowledge that effective interventions do not work everywhere and for everybody. Yet, nowadays, prevention science has provided us with solid knowledge and tools about preventing substance use and promoting alternative behaviours that are safe and will not harm our youth.

The involvement of civil society in prevention should not imply that anyone can design and deliver prevention interventions on a structural scale. Within Europe, the accreditation system for prevention professionals in Czechia is a beacon for prevention policy: only professionals with a minimum number of training hours in evidence-based prevention can gain access to young people in the education system, thus recognising that prevention is delicate and can be harmful: not everybody should be allowed to do it. Ethical prevention, based on the principle of "do no harm" has to make sure that people doing prevention with children should have the competencies needed for the job.



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## The better options can be less expensive too

**Decision and policy makers** have a large array of interventions and local regulatory policies at hand that are both effective and visible, yielding political capital. Why put a reputation of being responsible and caring at risk for being associated with controversial, commercial and flawed approaches, only because some influencer is personally convinced that it works, without presenting proper science-based evidence?

**Police staff interested and concerned with prevention** have plenty of evidence-based ways of acting precisely in the remit of police work: being present around school and nightlife venues, guaranteeing feelings of safety and reducing the presence of substance use sales or offers to minors. The police are crucial in ensuring safe and nurturing environments for young people. Why spend resources and time on ineffective informational activities?

**School authorities** have better choices both of evidence-based programmes for schools and of environmental prevention strategies that focus on positive and safe school climate and on clear house rules about substance use or possession on their premises. Information on substances can be delivered objectively within any school syllabus. Why expose school children to exaggerating narratives that only appeal to short-lived emotions but might backfire on the long run?

**Parents** have a number of effective alternative parenting practices that they can use at home in order to protect their children's behavioural health. We encourage parents to be

outspoken in refusing consent for their children to be exposed to unproven and potentially harmful interventions, for instance those using ex-addicts, exaggerated narratives or strong imagery. There is no need to frighten children or educate them about unpleasant practices and realities that might inspire them to initiate the very behaviour that was the focus of the “prevention” presentation. This is especially likely if the audience consists of youth who are impressionable or vulnerable.

There are effective **persuasive messaging** principles that can be used with the media, which do not backfire or instigate resistance by young people.

For precisely this purpose, EUSPR members have adapted the internationally renowned *Universal Prevention Curriculum* into a short European version, which is published by the EMCDDA (and can be downloaded on its [website](#)) as the *European Prevention Curriculum*. In the related training courses, Decision-, Opinion- and Policy Makers acquire in between 2 and 5 days the necessary knowledge about:

- genuinely effective prevention principles, strategies and programmes,
- how to select persuasive messages that genuinely change attitudes,
- how to identify evaluation studies that genuinely answer relevant questions, and
- how to assess genuinely good practice in prevention.

The course and its manual are based on the best available evidence about what works in prevention, were developed by experts with no vested commercial interests, and help decision makers to identify and protect themselves and children from ineffective or even harmful prevention offers.



## We ought to embrace prevention policies driven by rationality and science

Our society is perfectly aware that prevention practice in many parts of Europe falls far short of the ideal standards of using effective evidence-based strategies.

However, this is not a justification for decision makers to choose expensive,

commercial prevention offers that have not been decently evaluated, are based on no evidence, and have no or flawed theoretical foundations, only because they claim to be more innovative and better able to reach young people and get their attention. Gaining attention is only the first step in the prevention process, and efforts that stop there usually backfire.

We ought to embrace prevention policies driven by rationality and science, and not by popularity rates.

This is particularly important when scarce public money is devoted to prevention. It must be wisely spent, because investment in ineffective or harmful interventions directs resources away from effective interventions. Entities that prioritise such questionable interventions for funding, or publicly support them take a reputational risk. They might be perceived as diverting available resources away from interventions with proven benefits for our youth, while they spend them for often commercial offers with fake research and harmful ingredients.

We appeal to all institutions involved in facilitating and supporting pupil/student programmes to adhere to the existing quality standards in drug prevention and to responsibly reconsider and reject the dissemination and promotion of interventions that are not in line with current standards of evidence in Europe.

We call for compliance with the approved key documents of the European Strategy on Drugs supported by key international professional societies and institutions involved in the creation of quality in prevention: EMCDDA, United Nations Office for Drugs and Crime (UNODC) and the European and American Societies for Prevention Research (EUSPR and SPR).

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- All position papers of the EUSPR are independent scientific statements about the available evidence on a particular theme, written by selected experts among its members, endorsed by the EUSPR board.
  - The EUSPR is a non-profit organization committed to prevention science and, as such, does not engage with any type of commercial activities.
  - EUSPR position papers address a broader public and therefore use plain language avoiding scientific jargon. For this reason, we do not add the references to the scientific articles and reviews of evidence on which we have based our statements.
  - Readers with interest in the principles of prevention sciences can refer to the Handbook of the EUPC<sup>1</sup> and to the UNODC standards of substance use prevention<sup>2</sup>.
  - Readers with a concern or question about a specific statement can contact [President@euspr.org](mailto:President@euspr.org) and request specific literature references for the statements made.
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<sup>1</sup> [https://www.emcdda.europa.eu/publications/manuals/european-prevention-curriculum\\_en](https://www.emcdda.europa.eu/publications/manuals/european-prevention-curriculum_en)

<sup>2</sup> <https://www.unodc.org/unodc/en/prevention/prevention-standards.html>