HEALTH PROMOTION AND DISEASE PREVENTION **A Handbook for Teachers, Researchers, Health Professionals and Decision Makers**	
Title	**Health Promotion in Prevention of Drug Abuse: Guideliness for Primary Prevention of Drug Abuse, Attitude and Behaviour of Youngsters – Case Study Macedonia**
Module: 5.7	**ECTS: 0.5**
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Key words	Smoking, alcohol, drugs, ESPAD, Macedonia
Learning objectives	After the completed module, students and professionals in Public Health will broaden their knowledge in: • Drug use phenomenon (basic facts) • The magnitude of the drug use problem (attitude and behaviour) among youngsters in Macedonia, compared to other European countries • Experiences in implementation of different health promotion programs
Synopsis (Abstract)	Many countries in the world are facing the problem of drug use. The problem affects not just the user, but also his family and wider society. Different factors make youngsters particularly vulnerable towards drugs. Republic of Macedonia is facing significant increase in number of drug users during the last 15 years. Basic results of ESPAD survey are presented for Macedonia and other European countries. Few health education models for drug use prevention and the impact of those programs are discussed (SMART; DARE; Mia's Diary; Just say no; WHO). Principles, based on the lessons learned from the previous experiences in different health education programs are presented.
Teaching methods	Lecture, Focus group discussion, Case study
Specific recommendations for teacher	Case study: Students can organize a survey in their environment (using the similar instrument) and compare the data
Assessment of Students	Assessment of the theoretical knowledge (oral exam), contribution to the group work and discussion, quality of the final paper.

HEALTH PROMOTION IN PREVENTION OF DRUG ABUSE: GUIDELINESS FOR PRIMARY PREVENTION OF DRUG ABUSE
Attitude and behaviour of Youngsters - Case study Macedonia

Silvana Onceva, Doncho Donev

Psychoactive substances

The WHO defines psychoactive substance as "a substance that, when ingested, alters mental processes" (1). The term refers to any substance that when taken by a person, can modify perception, mood, cognition, behavior or motor functions. Substances affect thinking, feelings, perceptions and physical functions of the individual using them. There are desired effects that individuals using substances seek. These and other less pleasant effects are short-term. Substances also have long-term effects that damage body organs. The consequences are not just present in the person using them, furthermore the problem affect their family and the community as a whole. Many countries recognize that the use of substances by young people is a serious health problem, but also a social problem (2).

The use of substances is a result of interactions between the individual, the substance and the environment (Public Health Model):

1. The knowledge and attitude the individual may have about substances and their effects can influence use.
2. The existence of a substance creates a fundamental risk factor. The composition and nature of the substance can influence use.
3. Within the environment a variety of factors may influence use of substances. These include: existing cultural norms; general and peer-group attitudes about substance use, behaviour of parents, peers and role models, marketing strategies used for the promotion of the substances, laws, policies and regulations that limit the availability and accessibility of substances (2).

Drug abuse

In 1957 the World Health Organization (WHO) defined the drug abuse ("narcomania") as a condition of periodical or chronicle intoxication, as a result of consecutive intake of drugs.

The drug abuse is characterized with:

- enormous need for repeated intake of drug;
- tendency to increase the quantity (phenomenon of tolerance –applicable for some kinds of drugs, not all drugs);
- psychological (all drugs) and physical dependency/addiction (some kinds of drugs), (3).

Types of drugs

There are few categories of drugs in accordance to their effects on human being:

- Depressors of the Central nerve system: "Opioids" (opium, morphine, heroin, codeine, methadone), tranquilizers (sleeping pills, benzodiazepine), barbiturates and alcohol;
- Stimulants (cocaine, crack, and "designer" substances such as amphetamines, ecstasy);
- Hallucinogen drugs (LSD, psilocybin, mescaline);
- Cannabis (Marijuana, hashish);

- Volatile inhalants (Aerosol sprays, butane gas, petrol/ gasoline, glue, paint thinners, solvents, nitrites).

Nicotine from the tobacco is also psychoactive substance.

The use of tobacco and alcohol is legal and the use of other drugs is punishable. That is the reason why two terms related to drugs are also used: legal and illegal drugs.

Socio-medical importance of drug use problem

The Socio-medical connotation of the drug use problem is related to:

- Increased number of drug users in the world;
- Health consequences related to drug use;
- Participation in the mortality and morbidity rates, physical, emotional and social destruction of the personality, handicap, absenteeism, professional and other kinds of traumatism etc.;
- Difficulties in early detection and delayed initial treatment;
- The need for long term therapy, rehabilitation and re-socialization;
- The impact in the sphere of the family, community and society;
- Economical and social consequences of drug use;
- The correlation between the drug use, crime and violence;
- The need for multi disciplinary and multi sector response in drug use prevention with inclusion/active participation of different stakeholders (4).

Vulnerability and factors related to drug use

One of the worst aspects of the drug problem is that it affects primarily those who are most vulnerable, such as youth (5).

It is well known that childhood and adolescence are times of experimentation, curiosity and the search for identity. This phase may well involve risk taking - including risks to personal health, such as the use of alcohol, tobacco, pharmaceuticals, inhalants, illicit drugs, and other psychoactive substances (6).

The transition from adolescence to young adulthood is a crucial period in which experimentation with illicit drugs in many cases begins.

Young people could be using substances for a variety of reasons: to show independence, signal entry into a peer group, to satisfy curiosity, to relief stress etc.

Drugs may have strong appeal to young people who are beginning their struggle for independence as they search for identity. Because of their curiosity and thirst for new experiences, peer pressures, their resistance to authority, sometimes low self-esteem and problems in establishing positive interpersonal relationships, young people are particularly susceptible to drugs.

Many years ago, people thought that drugs are only used among particular social groups. Today it is well known that drugs are present among all groups.

Marginalized youth are particularly susceptible to the enticement of drugs. Populations such as street children, working children, refugee and displaced children, children and youth in institutional care, child soldiers and sexually exploited children are particularly at risk of abusing drugs mainly for functional reasons (lately there is a tendency for development and implementation of special programs targeting these vulnerable groups).

At the same time, there is considerable abuse of drugs among socially integrated young

people, in particular in the industrialized world. This could be attributed in part to the fact that significant numbers of the world's young people are being exposed to a culture that appears to be more tolerant towards the use of drugs.

In many countries, young people are increasingly being confronted with rapid social and technological change and a more competitive society, where the drive to succeed is high and personal self fulfillment is emphasized. Additionally, a weakening of traditional values and family ties and increased needs for higher levels of stimulation are being experienced (5).

There are also indications that young people are increasingly being exposed to a popular youth culture and mass media messages that are more tolerant towards the use of certain illicit drugs. This creates the wrong impression that the recreational use of those drugs is acceptable and glamorous.

Substance use problems usually arise from a combination of individual, family, school and community related factors. The terms "protective" and "risk factors" are often used to identify aspects of a person and his or her environment that make the development of a given problem less likely or more likely (7).

Substance use-specific research shows that societal and community level factors include the prevailing social norms and attitudes toward substance use (e.g., the smoking of cannabis is traditional in various regions), the level of availability of various substances and economic conditions.

Factors arising from the family environment include a history of substance use problems, effectiveness of family management, structure and coping strategies, the level of attachment between the parent and child, the nature of rules and parental expectations.

At an individual level, some persons may be predisposed to substance use due to their genetic traits. Generally, even in cases where there may be genetic influence, life experiences play a significant role in substance use.

The quality of a child's school experience is a very significant factor for substance use, as well as a number of other problems.

As a child enters adolescence, the selection of peers and the nature of peer support become more important. Anti-social behaviour, such as violence and gang membership, is a risk factor, as well as having friends who use substances.

Transitions or significant changes in one's environment (e.g., moving to a new neighbourhood or school, bereavement, parental separation) can be a significant point of vulnerability for young people (8).

Epidemiological data, results from different surveys/researches and International response

Legal drugs (tobacco and alcohol)

1. Tobacco

About 215 million Europeans smoke, of which 130 million are male.

The annual number of deaths attributable to the consumption of tobacco products is estimated at 1.2 million (14% of all deaths). According to data from 25 countries, covering 60% of the population of the European Region, average smoking prevalence in the male population is around 34% for Western European countries and 47% for Eastern European countries. In the female population the prevalence is some 25% for Western European countries and 20% for Eastern European countries (9).

Smoking is well established behaviour among young people, and the available data show almost no signs of a decrease. In Europe as a whole, smoking prevalence among people aged 15–18 years is estimated at around 30%, with a slight upward trend and no country showing a decrease in late 1990s (9).

International response towards tobacco use

Since the mid-1990s, approximately three quarters of European Member States have strengthened their policies on tobacco taxation; two thirds of countries have reinforced measures to combat smuggling; one third have introduced age restrictions on tobacco sales; and at least eight countries have introduced a complete ban or strict restrictions on direct advertising and have significantly improved regulations on smoking in public places.

At the end of 2001, approximately 80% of Member States had bans or restrictions on smoking in public places and workplaces.

Despite new bans and restrictions on advertising tobacco products, the industry has still been developing unscrupulous marketing, promoting "youth anti-smoking education programmes" and indirect forms of advertising targeted mainly at young people.

The Framework Convention on Tobacco Control is a milestone in an effective international response to many of these challenges. The vast majority of European Member States are involved in the negotiation process for smoking cessation, and the recently adopted Warsaw Declaration for a Tobacco-free Europe shows that the Region can indeed play a leading role in finalizing and adopting international legislation to fight the scourge of tobacco (9).

2. Alcohol

Each year over 55 000 young Europeans die from the effects of alcohol abuse. One in four deaths in European men aged 15–29 years is related to alcohol. In addition, between 40% and 60% of all deaths from injuries are attributable to alcohol.

The consumption of alcoholic beverages is estimated to be responsible for about 9% of the total disease burden within the European Region, increasing among others the risk of liver cirrhosis, raised blood pressure, heart disease, stroke, pancreatitis and cancers of the oropharynx, larynx, oesophagus, stomach, liver and rectum. Alcohol acutely impairs many aspects of psychomotor and cognitive function. Furthermore, alcohol consumption increases the risk of family, work and social problems such as failure in work performance, absenteeism, unemployment, accidents, debt and housing problems. The European Region has the highest alcohol consumption in the world.

The European School Survey Project on Alcohol and Other Drugs (ESPAD) shows that there are clear increases in the proportion of students who use alcohol in the central and eastern parts of Europe, especially in Lithuania, Poland, Slovakia and Slovenia.

In the CEE countries, consumption is increasing in the Czech Republic, Romania and Republic of Macedonia (9).

International response towards alcohol use

In general, western European countries have moved towards stricter alcohol control policies, have reduced per capita consumption levels and have lowered alcohol related harm to a greater degree than many of the countries in the central or eastern part of the Region (9).

Illegal drugs

Historical review of drug use

There are assumptions that the first experience with drugs in the human history has happened 40.000-10.000 years B.C. Most of the opiate drugs were not known in Europe till 13 century, when opium has been brought from the East. China prohibition for the British opium resulted with the First opium war in 1842 (10).

The use of the substances that influence psychological functioning of the body has been accepted as normal behaviour in many countries (alcohol in food, opium and cannabis in treatment, cocaine in decreasing hunger, hallucinogen drugs during religious ceremonies).

Use of cocaine has been legal in some countries till 1990s. Marijuana has been legal till 1930s, LSD till 1950s. Heroin has been isolated in 1868, and has been used for treatment of alcohol and morphine dependence for few decades (11).

Drug abuse among soldiers was present during the First and Second World War. One third of the American soldiers from Vietnam used drugs (4).

Current situation of drug use

The General Secretary of United Nations, during the General assembly of the United Nations in 1998 stated that around the world 200 millions persons take drugs, of which 21M use cocaine and heroin and 30M take stimulants (amphetamine).

In accordance to the United Nations Drug Control Program (UNDCP) data 3.3-4.1% of the world population are drug users. Cannabis is used by 140 millions consumers (12).

In Europe, 1.5-2 millions people use illegal drugs (10). In Central and Eastern Europe lifetime prevalence rates, usually lower than in Western Europe, increased dramatically during the 1990s and are rapidly approaching the levels of abuse of Western Europe (13). The Central and Eastern European countries face increasing problems associated with the traffic and transit of illicit drugs, as well as with the rise in local drug abuse.

The United Nations Office on Drugs and Crime (UNODC) states that cannabis is the most widely abused drug, with about 2.5 per cent annual prevalence among the world's population (5). Studies show that cannabis is also the most widely used drug in the central European countries and evidence suggests that there has been a noticeable increase not only in the illegal traffic, but also in the cultivation of cannabis in the region (1).

According to The World Health Report 2001, 0.4% of the total disease burden is attributable to illicit drugs (heroin and cocaine). Substance dependence is both a chronic medical illness and a social problem. Drug dependence treatment is cost-effective in reducing drug use (40–60%), and the associated health and social consequences, such as HIV infection and criminal activity.

In the EU, illicit drug use is concentrated in young adults, mostly males in urban areas.

The most serious trend is the rapid increase of injecting drug use, which has contributed to the spread of HIV infection. Hepatitis C infection rates in injecting drug users vary from 40% to 90%.

In accordance to the WHO data, in 1990, the participation of illegal drug abuse in total mortality in the World was 0.2%, where as alcohol participate with 1.5%, and tobacco with 6% (14).

Opiate users can have overall mortality rates up to 20 times higher than those of the general population of the same age, due not only to drug overdoses but also to accidents, suicides, AIDS and other infectious diseases (9).

Results of ESPAD studies

The European School Survey Project on Alcohol and Other Drugs (ESPAD) initiated by the Pompidou Group within the framework of the Council of Europe, carried out in 1995 in 25 European countries among 16 years old students showed that apart from the Czech Republic (21.5 per cent), lifetime prevalence of cannabis use varies between 15.7 per cent (Slovakia) and 1 per cent (Lithuania), with the majority of the countries concentrated in the 7-13 per cent range. The highest lifetime prevalence rates of heroin use were registered in Europe (in Denmark, Greece, Ireland and Italy the lifetime prevalence rate among 15- and 16-year-olds is 2 per cent). Heroin injection has increased during the 1990s in Eastern Europe (5).

ESPAD survey was organized also in 1999 and 2003.

ESPAD 1999 results:

Lifetime experience of illicit drug use among schoolchildren roughly doubled in the ESPAD99 countries, mostly reflecting cannabis use (9).

Life time experience of marijuana or hashish: lowest report in Romania (1%) and Cyprus (2%), in Portugal, Sweden and Macedonia (8%). The highest rates were presented in USA (41%), Czech Republic, France and United Kingdom (35%).

In average heroin was used among 4% of European students aged 16 in 1999 (9% in Latvia and Romania, 7% in Rusaia, 3% in Macedonia, 1% in France, Finland and Estonia). (15).

ESPAD 2003 results:

Life time experience of marijuana or hashish showed the lowest reported results in Romania, Turkey and Cyprus (3-4%). The highest rates were again in Czech Republic (44%), Switzerland, Ireland and France (38-40%).

Heroin was used among at most 5% in Italy and 1-2% in other European countries (15).

International response towards drug use problem

The WHO Regional office for Europe set the following target in the document "Health for all 21": In all European countries the prevalence of illegal drugs should be decreased at least for 25% and the mortality rate should be decreased for up to 50% by the year of 2015 (10).

Information, education, treatment and rehabilitation are key pillars of national policies for reducing the demand for drugs in the European Region. In addition, most countries aim to reduce the negative impact on public health of continued drug abuse, including the prescription of substitution drugs to drug-dependent people, the promotion of "safe" drug taking, and the establishment of drug injection rooms to decrease the risk of multiple use of contaminated injecting equipment.

Comprehensive national drug policies aim at reducing the consequences of problem drug use such as HIV infection, hepatitis B and C and deaths from overdose. Taking into account the United Nations Declaration on the Guiding Principles of Drug Demand Reduction, special attention must be paid to the wider implementation of community-based drug prevention programs, the development of a public health drug-treatment model that would make services available to more people in need of treatment, and programs for reducing harm, minimizing risk and rehabilitation (9).

Prevention of drug abuse

Primary prevention is defined as "strategies that aim to prevent the uptake of psychoactive substance use, or delay the age at which use begins", whereas secondary prevention "refers to interventions that aim to prevent substance use becoming problematic among people already using psychoactive substances, which limit the degree or duration of individual or social damage caused, and which assist users who may wish to stop using" (16).

The preventive measures are systematized in few general areas:

- Supply reduction- control of production and trade of drugs as well as repressive measures (organized crime related to drugs);
- Demand reduction - includes prevention and treatment (Primary, secondary and tertiary prevention);
- Harm reduction - Inclusion of drug users in society and provision of health and social support and care (17).

Primary prevention of drug use

The goal of the preventive programs is to achieve a quality of life in which the decreased availability of drugs will result in decreased drug demand, with protection of human being and his family from the risk for physical, psychological and social health disturbances.

Drug abuse prevention is not a single activity; it is rather a process of getting and keeping in touch with young people's developments, their needs, their fears, and their potentials (6).

Some authors are presenting two types of activities in primary prevention of drug use:

- Non-specific activities are towards the improvement of the quality of living: informal education, leisure time activities, stimulation of successful parenthood;
- Specific activities are related to diminishing the risk for experimenting/initial use of drugs. The programs include information and education on drugs. The goal is to influence attitude and behaviour towards addictive substances (17).

There is a general consent that prevention programs should enhance protective factors and reverse or reduce risk factors (Hawkins et al. 2002). The potential impact of specific risk and protective factors changes with age. For example, risk factors within the family have greater impact on a younger child, while association with drug-abusing peers may be a more significant risk factor for an adolescent (Gerstein and Green 1993; Kumpfer et al. 1998).While risk and protective factors can affect people of all groups, these factors can have a different effect depending on a person's age, gender, ethnicity, culture, and environment (Beauvais et al. 1996; Moon et al. 1999). Prevention programs should be tailored to address risks specific to population or audience characteristics, such as age, gender, and ethnicity, to improve program effectiveness (Oetting et al. 1997), (18).

Review of the results of preventive programs

Many prevention campaigns in the past have at best been entertaining for young people but by no means effective in reducing problematic drug use among them.

Hypocritical messages, "teaching" and scaring cannot be part of this approach, because they impede the open and honest atmosphere that is needed to make this approach effective and accepted by the target group (6).

In 1979, Abrams, Garfield and Swisher stated that the goal of educational programs for drugs should include information, but also:

- Activities for skills development for decision making;

- Activities for increasing the level of self confidence;
- Increased participation in leisure time activities as alternative to drug use (sport and recreational activities, art, social activities, games, spiritual activities), (19).

Einstein (1983) focused on the influence of drug education on the level of knowledge and attitude. He states that even thought the drug education programs could very easily increase the knowledge; it is much more difficult to provoke change of attitude. Many programs did not have effects related to drug use. The fact that drug users have bigger knowledge on drugs compared to those who do not take drugs does not mean that the knowledge on drugs could influence drug use (20).

Similar results are published by the WHO expert committee: The evaluation of short term effects of educational programs for students and public campaigns even thought they are increasing the level of knowledge for the problems related to use of tobacco, alcohol and other drugs, have no significant impact on the attitude and behaviour towards drug use among youngsters (20).

DARE- program (Drug abuse resistance education) is designed for developing skills to recognize and resist the social pressure for drug use. The program is focused on development of self esteem, coping in stress situations, self confidence, communication skills, decision making and recognition of positive alternatives. The program is implemented by police officers (19).

The results from the surveys conducted has shown that there is no significant variance between the students who participated in DARE program and the control group in reference to tobacco smoking, alcohol and marijuana use among 7 grade students, one and 5 years after the implementation of the program (21).

Bell is reporting on the effects of ALERT- preventive program on drug use in California. The goal of this program was to motivate youngsters not to use drugs and to provide skills to refuse offered drug. The conclusion was that the long term implementation of educational programs in elementary schools is needed for prevention of drug use among students (22).

SMART- project (Self management and resistance training) was created in 1989 by Moskowitz. There are two approaches: social skills development model and model for decision making. There were good results in prevention of smoking, but no results in prevention of alcohol and drugs intake (19).

The critical review of Nicholas Dorn (1990) is so called British skepticism. He stated that: "Just say no" approach simply does not work (4).

Young people can be rather creative in making fun of official "adult" slogans: in the United States, the "Just say NO" campaign, initiated by Nancy Reagan in the late eighties, was quickly changed into "Just say YO" by many young people. Similarly, the German Campaign slogan "Keine Macht den Drogen"(.No power to drugs.) evoked numerous others making fun of the original, such as :Keine Macht den Doofen" (.No power to dummies.), (6).

O Connor in 1992 is presenting the results from the school educational programs on drugs: there is an influence on the level of knowledge and attitude, but very limited influence on behaviour (drug use), (23).

What works in prevention: reviewing prevention strategies and rethinking approaches

The changing perception of cannabis among young people, the increasing abuse of ATS and the widespread abuse of other drugs indicate a need for innovative approaches and an adjustment of prevention strategies aimed at reducing the demand for drugs.

No particular approach or strategy has been proved through rigorous scientific study to be consistently effective over the long term in reducing drug abuse.

Principles for substance abuse prevention:

- Strategies should be carefully tailored to clearly defined target groups (young people are not all equally vulnerable). Programs should be age- and gender-specific, developmentally appropriate and culturally sensitive;
- Youth are not homogeneous and they are not all equally vulnerable. The specific needs of vulnerable or disadvantaged youths as well as gender aspects should be identified and addressed accordingly;
- The target group should be actively involved in the development, execution and evaluation of the programs and also participate in their re-design and reimplementation, if needed (6);
- Prevention programs should include the family and the community at large in order to reinforce the information that is communicated to young people in the context of prevention activities. The role of the community in preventing substance abuse should be participatory. The community should actively participate in determining the problems and needs, developing solutions, and implementing and evaluating interventions. (This is the underlying principle behind the UNDCP/ WHO Global Initiative on Primary Prevention of Substance Abuse), (2);
- Programs should not be focused on certain substances, but rather on the issue of problematic substance use and how this is related to other problems. Prevention should not focus on one drug only, but it should address, within the wider concept of health promotion, substance abuse in general, including that of tobacco, alcohol and inhalants;
- Advertisements and media messages on substance abuse prevention should not be based on scare tactics, but that focus on positive alternatives to drug abuse;
- Multiple strategies are probably the best way to approach the complexity of the drug abuse problem and the greatest chances of success are likely to come from a combination of different approaches. Ideally, that combination should combine the knowledge/attitude/ behaviour approach with health promotion, and the building of self-esteem and resistance skills;
- Prevention strategies should try to foster and enhance individual strengths and to develop resilience factors that protect individuals in stressful situations and environments, and should try to give youth a set of specific skills for resisting peer pressure to use drugs, to strengthen personal commitment against drug use and to increase social competency (e.g. in communications or relationships with peers);
- There is strong indication that involving young people as prevention agents in peer-led initiatives can produce good results. Activities in schools can support peer-to-peer-projects and enhance also communication between school students and parents. Groups, which may have an influence on the living conditions and social environment of the main target group, should be involved (6);
- Programs should give healthy and creative alternatives to using drugs (promotion of healthy life styles). Alternatives to substance abuse must be attractive. They should combine and encourage individual skill development, interesting leisure activities and a supportive attitude in the community. It is also important to offer young people

accessible and low-cost opportunities to meet, cultivate an appreciation for the arts, play sports and take part in other challenging activities that develop self-confidence;
- Activities should build on existing research-based evidence and needs assessments, especially among the target group itself to ensure the program is relevant to the target group and takes their attitudes, behaviours, and lifestyles into account;
- Prevention programs need to be sustained over a long period of time to be effective (5).

Summarizing the above mentioned principles, three general elements should be included in prevention programs:

(a) Addressing the values, perceptions, expectations and beliefs that young people associate with drugs and drug abuse;
(b) Developing life skills and social competencies to increase the capacity to make informed and healthy choices;
(c) Creating an environment where children and young people have the possibility to be involved in healthy activities and where substance abuse is not promoted by peers, family, the media and other influential actors in the community (13).

Peer education

Peer refers to a person who belongs to the same social group as some other people based on age, sex, sexual orientation, occupation, socio-economic and/or health status, etc.

Education refers to the development of a person's knowledge, attitudes, beliefs or behavior resulting from the learning process.

Peer education in youth is the process whereby well trained and motivated young people undertake informal or organized educational activities with their peers (as defined by age, background or interests) over a period of time, aimed at developing their knowledge, attitudes, beliefs and skills and enabling them to protect and be responsible for their own health (24).

The peer-to-peer approach supports the empowerment of young people, encourages them to become more involved in their communities and to use their individual skills in coping with every-day challenges in their own way (6).

The peer-to-peer method is based upon the recognition that children and adolescents have their own way of gaining and spreading information. Young people are more likely to listen to and take the advice of someone with a similar experience than a teacher or a social worker. This is very much so in the field of substance use where role models, lifestyles, attitudes, and value systems, as well as peer pressure that often takes place in settings remote from adult influence, play a major role in the decision pro or contra using drugs (6).

The advantage of peer education is that youth peer educators are less likely to be seen as authority figures "preaching" about how others should behave. Rather, the process of peer education is perceived more like receiving advice from a friend "who is in the know". A successful peer educator is viewed by his or her peers as someone who has similar concerns, is trying to help out, and has an understanding of what it is like to be a young person (24).

Recent information on drug abuse among children and youth suggests the need to begin substance abuse preventive education early in life and to continue such education with developmentally appropriate interventions.

It seems important for the success of prevention programs that drug abuse preventive education should start in primary school (period when values are not yet determined).

There is growing evidence that preventive education needs to be delivered at a time when it is more likely to influence attitudes and behaviour (13).

Peer education can take place in small groups or through individual contact and in a variety of settings: in schools, clubs, religious settings, workplaces, on the street or in a shelter, or wherever young people gather.

Peer education can be used with many populations and age groups for various goals.

Examples of youth peer education activities are:

- Sessions with students using interactive techniques such as group brainstorming, role plays or personal stories;
- A theatre play in a youth club, followed by group discussions; and
- Informal conversations with young people at a disco about risky health behaviours and referrals to service providers.

Life skills

Life skills are considered to be abilities for adaptive and positive behavior that enable individuals to deal effectively with the demands and challenges of everyday life.

Life skills that are important to promote the health and well-being of children and young people include: self-awareness, empathy, communication skills, interpersonal skills, decision-making skills, resistance skills, problem-solving skills, creative thinking, critical thinking, coping with emotions and coping with stress (5).

Life skills development is regular content of peer education programs.

Strategies should try to encourage individual strengths and those things that protect individuals in stressful situations and environments, and should try to give youth a set of specific skills for resisting peer pressure to use drugs, for example in communications or relationships with peers (25).

Prevention Programs in different environments/ settings

Family Programs

Family-based prevention programs should enhance family bonding and relationships and include parenting skills; practice in developing, discussing, and enforcing family policies on substance abuse; and training in drug education and information (Ashery et al. 1998).

School Programs

Prevention programs can be designed to intervene as early as preschool to address risk factors for drug abuse, such as aggressive behavior, poor social skills, and academic difficulties (Webster-Stratton 1998; Webster-Stratton et al. 2001).

Prevention programs for elementary school children should target improving social-emotional learning to address risk factors for drug abuse, such as early aggression, failure and school dropout. Education should focus on the following skills: self-control; emotional awareness; communication; social problem-solving; and support, especially in reading. (Lalongo et al. 2001; Conduct Problems Prevention Work Group 2002).

Prevention programs for middle or junior high and high school students should increase academic and social competence with the following skills: study habits and academic support; communication; peer relationships; self-efficacy and assertiveness; drug resistance skills; reinforcement of anti drug attitudes; and strengthening of personal commitments against drug abuse. (Botvin et al.1995; Scheier et al. 1999).

Community Programs

Community prevention programs reaching populations in multiple settings—for example, schools, clubs, faith-based organizations, and the media—are most effective when they present consistent, community-wide messages in each setting (Chou et al. 1998).

Prevention Program Delivery

Prevention programs should be long-term with repeated interventions (i.e. booster programs) to reinforce the original prevention goals. Research shows that the benefits from middle school prevention programs diminish without follow up programs in high school (Scheier et al. 1999).

Prevention programs are most effective when they employ interactive techniques, such as peer discussion groups and parent role-playing, that allow for active involvement in learning about drug abuse and reinforcing skills (Botvin et al. 1995).

Research-based prevention programs can be cost-effective. Similar to earlier research, recent research shows that for each dollar invested in prevention, a savings of up to $10 in treatment for alcohol or other substance abuse can be seen (Pentz 1998; Hawkins 1999; Aos et al. 2001; Spoth et al. 2002), (18).

Evaluation results suggest that drug abuse prevention projects and programs are successful if they are nonspecific on certain substances, target-group-oriented, and if they address drug abuse problems on an integrated basis.

They should combine the knowledge/ attitude/behaviour approach with health promotion, and the building of self-esteem and life skills in various settings (6).

Case study in Macedonia

Illegal drugs in the Republic of Macedonia

Growing poppy in the Republic of Macedonia has long term tradition. Although, the pleasant clime resulted with the best quality opium in the region, the number of drug users at that time was very small till 1990s.

The conflicts in the region during the 1990s (war in Former Yugoslavia) changed the regular transit paths of heroin towards Europe and the country recognized previously as a "transit" country became "consumer" country for drugs, too.

The Republic of Macedonia during the last 15 years is facing significant increase of the number of drug users. In accordance to the data from the Ministry of Interior (which is the unique source of official data on drugs) the total number of registered drug users (cumulatively-includes all registered cases from previous years) in 1990 was 337. In 1995 there were 1377 and at the end of 2000, the cumulative number of registered drug users was 4569.

Table 1: Number of registered drug users and number of deaths for the period 2001-2005 in Macedonia

Year	Total number of registered drug users (cumulative, prevalence)	Number of heroin users (out of the total number)	Number of deaths of drug users (incidence)
2001	5030	2704	30
2002	5222	2628	23
2003	6034	2494	33
2004	6583	2538	13
2005	7126	2774	13

Source: Ministry of Interior of the Republic of Macedonia

In 2003, NGO HOPS reported that 91% of their clients are injecting drug users (IDUs). Of those clients, 31% have taken drugs for more than 5 years. Sixty one percents of the clients did not ever used public or any other services, and 36% underwent methadone maintenance treatment (26).

For the period 1999-2007 HOPS contacted 2441 IDUs, of which 1597 IDUs were aged less than 20 years (HOPS, 2007).

Taking in consideration official and unofficial data, it is estimated that in the Republic of Macedonia 6000-8000 persons can be considered as problematic drug users[1] because of heroin use, and face serious health and social consequences. At the same time, it is estimated that the number of predominantly young people using different types of illicit drugs for experimental and/ or recreational purposes is several times bigger.

There are also indications that the time when youngsters start to use or experiment with drugs usually happens at earlier age than previously.

Results from ESPAD 99 survey in Macedonia

The European school survey project on alcohol and other drugs (ESPAD) for the first time was conducted in Macedonia in 1999. The results from 2491 interviewed students, all of them aged 16 were presented and compared with the results from other European countries.

Table 2: Gender structure of interviewed 16 years old adolescents from Macedonia who stated "never smoked" or "never took alcohol" (life time prevalence), (4)

Personal attitude	Female	Male
Never smoked tobacco	43.96%	39.78%
Never used alcohol	36,53%	25,77%

Variances in the results are present among representatives from different ethnic groups in Macedonia (including different religious affiliation: orthodox and Muslim), who stated "never used alcohol": Macedonians (18.91%), Albanians (77.19%), Turks (75.85%), (4).

Table 3: Life time prevalence of alcohol use among 16 years old students in some European countries in 1999 (15)

Number of occasions when alcohol was used	Macedonia	Bulgaria	Croatia	Greece	Italy	Slovenia	Sweden	United Kingdom
0	32	14	13	2	15	9	10	6
1-2	21	16	19	7	15	14	12	5
3-5	15	16	16	7	16	14	14	6
6-9	9	13	12	10	12	13	13	7
10-19	10	16	13	15	14	16	19	14
20-39	5	10	10	18	11	11	14	16
40+	9	16	18	42	17	23	19	47

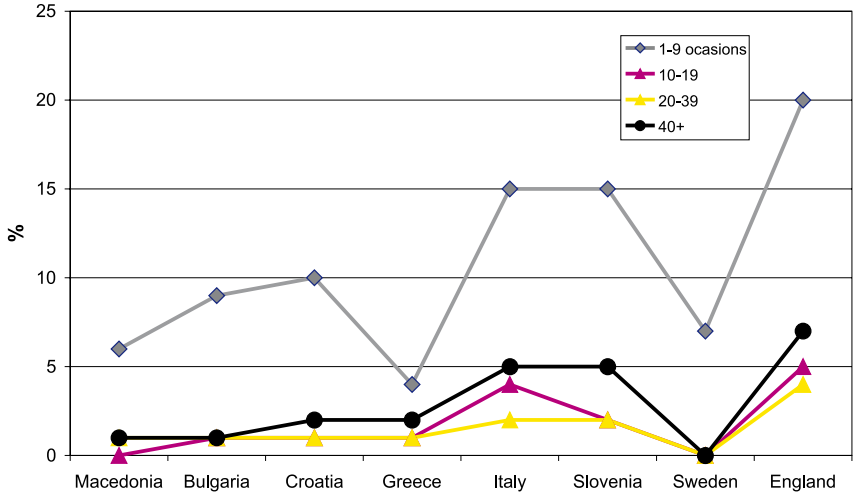
1 EMCDDA definition of problem drug use: "Injecting drug users" or "long duration/ regular use of opiates, cocaine and/ or amphetamines", EMCDDA [1999]. Methodological guidelines to estimate the prevalence of problem drug use at national level. CT.99.RTX.05, Lisbon, Portugal.

Five percents of male and 3.7% female students stated that they have tried cannabis 1-2 times in their life. Marijuana could be easily provided in coffee bars, discos, in the park, on the street etc. Around 5% students stated that marijuana could be provided in school.

The drug was usually offered by a friend (not a dealer). Curiosity was the main reason for taking drug for the first time.

First contact with illegal drugs was usually at age of 15 or 16, compared to cigarette smoking (started even at 11 years of age at 9% of students who smoked). Marijuana was usually the first taken drug (4).

Figure1. Frequency of lifetime use of marijuana in Macedonia and other European countries, ESPAD 1999 (4)



ESPAD survey was not organized in 2003 in the Republic of Macedonia.

Exerise: Health education programs

Task

Students are asked to investigate what kind of drug preventive programs do exist in their country/city (contents of educational programs, methodology used, target audience), discuss the outcomes of those programs with persons in charge, or provide final reports and lessons learned.

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