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6. Understanding of Drug Addiction and the Role of NGOs in the Treatment and Control of Infectious Diseases

Introduction

The main goal that the authors pursued when writing this chapter was to form a basic system of knowledge and understanding of the nature of addiction to psychoactive substances, of which drug addiction is a special case.

This chapter defines the basic concepts that reveal the phenomenon of drug use. It should be noted that drug addiction is a special case of addiction to psychoactive substances classified as drugs according to international and national legislation. At the same time, the terms “drug addiction” and “addict” are outdated and have a stigmatising meaning. But importantly, they are most often used to define opioid addiction, i.e. addiction to natural opiates, semi-synthetic opioids, or synthetic opioids. According to international standards, the more accurate definition is “substance use disorder” International Classification of Diseases 11th Revision (ICD-11). Psychoactive substances directly activate the brain’s reward system, which usually induces feelings of pleasure.

The authors reveal the social, psychological, economic, and medical factors that influence the initiation of illegal drug use, as well as familiarise the reader with the medical and social consequences of illegal drug use and, in particular, opioids. They also analyse the role of NGOs in the prevention and treatment of substance addiction and its consequences.

Key words: psychoactive substances, drug addiction, addiction to psychoactive substances, treatment of drug addiction, outreach work, NGOs.

Definition of Key Terms

As Mashal Khan (Khan 2022) writes, “the terms “drug addiction”, “abuse”, and “addiction” are too sparse and vague to be useful for systematic diagnosis.”¹ The specific characteristics of the feelings induced vary greatly depending on the drug. These drugs fall into ten different groups that have different pharmacological mechanisms: 1) alcohol, 2) caffeine, 3) cannabis and synthetic cannabinoids, 4) hallucinogens, 5) inhalants, 6) opioids, 7) sedatives, sleeping pills and tranquilisers, 8) psychostimulants, 9) tobacco, and 10) others (e.g. anabolic steroids).²

The term “narcotic” is more of a legal and colloquial term (Khan 2022). It originally referred to drugs that induce anaesthesia (insensitivity or stupor), particularly opioid drugs (e.g. opium and opium derivatives).

Psychoactive substance uses disorders include a pathological pattern of behaviour in which patients continue to use a substance despite experiencing significant problems related to its use.

ICD-11 defines psychoactive substance use disorders or addictive behaviour as “mental and behavioural disorders that result from the use of predominantly psychoactive substances, including drugs, or specific repetitive rewarding and reinforcing behaviours.”³

Psychoactive substance uses disorders include (1) single episodes of psychoactive substance use with harmful consequences, (2) psychoactive substance use disorders (harmful substance use and substance addiction), and (3) psychoactive substance-related disorders such as intoxication, withdrawal, and psychoactive substance-induced mental disorders, sexual dysfunction, and sleep-wake disorders (ICD-11 2021).

All drugs included in the classification have different effects, and there are different disorders associated with their use. The addic-

1 Khan, Mashal (2022): Psychoactive substance use disorders. MSD handbook. Professional version.

2 Khan, Mashad (2022): An overview of psychoactive substance use. MSD handbook. Professional version.

3 ICD-11 (2021): Chapter 06. Mental and behavioral disorders and disorders of neuropsychiatric development. Statistical classification. Moscow: “KDU”, “University Book”, p. 432. DOI: 10.31453/kdu.ru.91304.0143.

tion induced is influenced by factors such as route of administration; the rate at which the drug crosses the blood–brain barrier and stimulates the reward system’s conductive pathways; the time of onset of effect; and the ability to induce tolerance and/or withdrawal syndrome (Khan 2022). In addition, both the use and discontinuation of narcotic/substance abuse can cause psychological, behavioural, and physiological changes such as intoxication and withdrawal (Khan 2022; ICD-11 2021). Substance abuse can also lead to psychiatric disorders (e.g. depression, psychosis, anxiety, or neurocognitive disorders).

From a clinical approach to substance use disorders, illicit drug use, although a controversial issue due to its illegality, does not always lead to substance use disorders. Recreational drug use, although socially condemned, is not a new phenomenon and has existed in one form or another for centuries. People use drugs for a variety of reasons: to improve or elevate mood, as part of religious ceremonies, to achieve spiritual enlightenment, and to enhance performance.

Some people who use psychoactive substances tend to use drugs episodically at relatively low doses that preclude clinical toxicity and the development of tolerance and physical addiction. Many recreational drugs (e.g. crude opium, alcohol, marijuana, caffeine, hallucinogenic mushrooms, and coca leaves) are “natural” (i.e. close to plant origin); they contain a mixture of relatively low concentrations of psychoactive compounds and no isolated psychoactive compounds.

Individuals with a substance use disorder typically progress from experimentation to occasional use and then to addiction. This progression is complex and only partially understood. The process depends on the interaction between three elements: the drugs, the user, and the conditions.

The drugs in the aforementioned ten classes vary in their likelihood of triggering a substance use disorder. This likelihood is called the propensity for addiction. Substances that are legal and/or readily available (e.g. alcohol, tobacco) are used initially and thus increase the risk of the individual developing an addiction. In addition, as the perception of risk in the use of a particular substance decreases, there may be subsequent experimentation and/or recreational use of the drug, increasing susceptibility to substance abuse. Variations in risk perception are influenced by many factors, includ-

ing conclusions regarding medical and psychiatric complications from use and social consequences.

Patients may be prescribed opioids during treatment for somatic conditions or after surgical or dental procedures. A significant proportion of these drugs remain unused but may remain at home, posing a potential risk to children, adolescents, and adults who wish to use them for non-medical purposes. Consequently increased emphasis has recently been placed on the need to prescribe opioid medications in smaller quantities that are more appropriate to the likely duration and severity of pain; on promoting the safe storage of remaining medications; and on prescription return practices (Khan 2022).

Users

When it comes to users, factors of interest include their psychological characteristics, circumstances, and specific disorders. Psychological characteristics are clearly not a strong factor, although individuals with low self-control (impulsivity) or high risk-taking and novelty-seeking tendencies may have an increased risk of developing a substance use disorder. The dependent personality type has been described by various behavioural scientists, but there is little scientific evidence to support the concept.

A number of circumstances and co-occurring disorders appear to increase risk. For example, individuals who are sad, emotionally depressed, or socially alienated may perceive these feelings as a result of temporarily discontinuing a drug; this can lead to increased use and sometimes to the development of a psychoactive substance (PAS) use disorder.

Patients with other, unrelated psychiatric disorders have an increased risk of developing a substance abuse disorder. Patients with chronic pain (e.g. back pain, pain caused by sickle cell anaemia, neuropathic pain, fibromyalgia) often take opioids for symptom relief; many subsequently develop a substance use disorder. Nevertheless, in many of these patients, non-opioid medications and other therapies may be adequate to relieve pain and suffering.

Addiction is likely a polyetiological disorder. There are a number of genetic and epigenetic factors that influence the progression of

addiction. Research regarding specific genetic abnormalities is substance specific.

Environment

Cultural and social factors play an important role in the initiation and maintenance (or relapse) of substance use. Observing family members (e.g. parents, older siblings) and peers who use substances increases the risk that individuals will initiate substance use. Adolescents are particularly influenced by their peers. People who are trying to stop using a substance face additional challenges if they are surrounded by other people who are also using the substance.

Physicians themselves may unintentionally promote the use of surfactants by prescribing them to patients for pain or stress. Many social factors, including the media, instil in patients that medications should be used to alleviate all distress.

The diagnosis of substance use disorders is based on the identification of a pathological pattern of behaviour in which patients continue to use a substance despite experiencing significant problems related to its use. The most recent revision of the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM 5-TR) provides eleven criteria divided into four categories (Khan 2022). Individuals who meet two or more of these criteria within a twelve-month period are considered to have a psychoactive substance use disorder.

Inadequate monitoring of use

1. The person takes the substance in larger quantities or for a longer period of time than originally intended.
2. The person wishes to stop or reduce the use of the substance.
3. The person spends a significant amount of time acquiring, using, or recovering from the effects of substance use.
4. The person has a strong desire (craving) to use the substance.
5. Social impairment.
6. The person is not fulfilling basic role obligations at work, school, or home.

7. The person continues to use the substance even though it is causing (or exacerbating) social or interpersonal problems.
8. The person misses or diminishes important social, occupational, or recreational activities because of substance use.

Risky use

1. The person uses the substance in physically dangerous situations (e.g. driving or dangerous social circumstances).
2. The person continues to use the substance despite realising that it is exacerbating a medical or psychological problem.

Pharmacological symptoms

1. Tolerance: the individual needs to gradually increase the dose of the drug to produce intoxication or pleasure effects, or the effects of the current dose diminish over time.
2. Withdrawal syndrome: unexpected physical effects occur, after discontinuation of the drug or when its effects are neutralised by a specific antagonist.

Severity of substance use disorder is determined by the number of symptoms:

- Mild: 2 to 3 criteria
- Moderate: 4 to 5 criteria
- Serious: ≥ 6 criteria

Thus, addiction to psychoactive drugs (i.e. substances that alter brain function) is a multifactorial disorder that often has a chronic course with frequent relapses. The development of addiction syndrome is the result of a complex interaction between many social, psychological, and biological factors. Thus, addiction syndrome is a chronic, relapsing biopsychosocial health disorder (Keremi/Mukhambetova 2014).⁴ In this case, the consumption of some PAS

4 Keremi, N./Mukhambetova, K. (2014): Socio-medical and legal aspects of prevention of HIV infection and drug use among drug users and in prison settings. Training manual. Astana: UNODC Program Office, p. 42.

or class of PAS becomes a much higher priority for a given individual than other aspects of his or her life that were more important in the past.

The central descriptive characteristic of the addiction syndrome is a strong desire to take a given PAS, even if the person is aware of the harmful consequences of this intake for his or her health and social functioning. In the process of addiction formation, psychophysiological processes relevant to directing motivation and achieving satisfaction, learning and memory, and controlling behaviour are altered.

Addiction syndrome develops as a result of repetitive substance use. PAS addiction is often the result of unhealthy social environments in which children and adolescents live, especially those from dysfunctional families. Experimentation with or long-term use of PAS is the result of a long chain of unfavourable conditions, such as parental emotional neglect and child abuse, lack of communication within the family, broken attachments, rejection at school, social isolation and illness during the mother's pregnancy and early child development, and brain injury during childbirth, among others. In such situations, individuals turn to PAS as an attempt to protect themselves from chronic stress or to obtain at least temporary psychological comfort or a feeling of strength and self-confidence.

Other things being equal, the genetic factors of an individual determine the nature and severity of the psychopharmacological effect of a particular PAS (pleasant sensations or not, strong action or weak, etc.), as well as the speed of development of the addiction syndrome and, to a greater or lesser extent, the severity of the consequences.

Two components of addiction are clinically described (Keremi/Mukhambetova 2014): 1) psychological (mental) addiction is manifested in the loss of the ability to control the consumption of a given psychoactive substance, i.e. its consumption continues despite the obvious negative medical and social consequences caused by its intake; 2) physiological (physical) addiction is characterised by an increased tolerance to increasingly large doses of a psychoactive substance (development of tolerance) and the development of withdrawal syndrome when stopping the intake of this substance.

Tolerance refers to a state of adaptation to narcotic or other psychoactive substances characterised by a reduced response to the ad-

ministration of the same amount of the drug when a higher dose of the drug is required to achieve the same effect. After a certain period of time after the beginning of systematic drug use, the initial dose ceases to have the desired effect, and the patient is forced to increase the dose. In the future, this dose becomes insufficient and the need to increase it even further arises. Tolerance increases, which is accompanied by suppression of the body's defence reactions (disappearance of vomiting, coughing, etc.). Increased tolerance can be manifested by both an increase in single doses and an increase in the frequency of taking the PAS.

Withdrawal syndrome (or abstinence syndrome) is a painful condition that develops in long-term and regular users of a PAS when they stop or reduce their intake. Health disorders specific to each pharmacological group of surfactants develop.

Another important feature of PAS addiction is the very rapid recovery of tolerance and withdrawal when the substance (or a pharmacologically similar substance) is resumed, even when the person has been abstinent for a long time (months or years).

It should be noted that, in addition to the typical PAS addiction states described above, there are many variants in which one or another of its components is absent, such as a situation in which tolerance to cannabis (marijuana, hashish) develops and there is a clear desire to repeat its use, but there are no or very weak clinical signs of withdrawal; or in cases of long-term medical use of PAS (e.g. analgesic opioids), the withdrawal syndrome may be pronounced, but patients do not have psychological addiction, i.e. an irresistible craving or urge to take these drugs and appropriate drug-seeking behaviour.

Drug addiction is a particular case of addiction to psychoactive substances classified as drugs according to international and national legislation (Keremi/Mukhambetova 2014). The term *narcomania* itself and its derivative—*narcoman*—are considered outdated as they have a negative meaning; however, these terms are still used in Russian-language literature. One such case is opiate addiction, i.e. addiction to natural opiates (derived from the opium poppy), semi-synthetic opioids, or synthetic opioids (i.e. substances similar to natural opiates).

Heroin (semi-synthetic opioid) addiction is the most typical variant of opioid addiction in the former Soviet Union. Addiction ini-

tially formed by ingestion of raw opium (containing a number of opiate alkaloids), a single opiate (e.g. morphine), or an opioid (e.g. heroin) is characterised by the development of cross-tolerance to any of the opioids (natural or synthetic) and cross-addiction. Thus, the physiological reactions that characterise opioid addiction are universal with the ingestion and withdrawal of any of the opioids. This is due to the fact that all of these substances interact with the same specific brain receptors and, accordingly, their administration leads to similar psychophysiological effects (e.g. an analgesic effect or a reduction of the cough reflex).

The nature of the course of addiction syndrome as a disease, namely the severity of clinical manifestations and the range and severity of medical and social problems, depends on the interaction of social, psychological, and biological factors. In general, the more unfavourable the social atmosphere in which a young person lives for a long time, the lower the person's well-being, the less psychological support they receive from the environment, and the worse his or her health, especially mental health, is, the more unfavourable the course of drug addiction.

The social problems that arise for drug users that are listed below, including conflict with the law, are mainly problems associated with the need to maintain drug use. As previously mentioned, some problems entail other problems, often more serious and dangerous to health.

Classification of Drugs

A psychoactive substance is a substance that, when consumed, alters mental processes such as thinking and emotions (WHO Dictionary of Alcohol, Drugs and Other Psychoactive Drugs 1994, 1996). PAS is the most general term for a whole class of substances used legally and illegally. There are different criteria for classifying PAS, such as according to their origin:

- natural, such as natural plant products (e.g. opium resin/raw opium, cannabis resin/hashish and marijuana (the leaves of the top of the plant and the inflorescences of hemp), "magic" mushrooms, Mexican mescal cactus) and natural plant com-

ponents obtained by isolating them from whole raw materials (e.g. morphine and codeine from raw opium; cocaine from coca leaves; nicotine from tobacco leaves; caffeine from coffee beans; tea from tea bush leaves), as well as substances obtained from the digestion of organic products (alcohol);

- semi-synthetic, obtained by special chemical processing of whole raw materials, such as heroin (diacetylmorphine), hydro-morphine, codeine, and oxycodone;
- synthetic, derived from the synthesis of new chemical products, such as phenobarbital, seduxen, elenium, methadone, buprenorphine, amphetamine, ecstasy, ketamine, and many others.

PAS are also classified on the basis of chemical similarity and according to their psychopharmacological effects. In a simplified form, we can talk about the following categories of psychoactive substances (see Table 1 for examples of the most common PAS).

From a legal perspective, the production, storage, circulation, and consumption of PAS can be legal or illegal. In turn, the production, storage, circulation, and consumption of PAS may (1) not be regulated in any way by law (e.g. betel and khat in South-East Asia and the Middle East), or (2) legal production, storage, and circulation is regulated but consumption is not (e.g. coffee and tea), or (3) all of these components are regulated through a more or less strict control system (e.g. opioids, psychotropic drugs, alcohol), and finally (4) for certain PAS, there is a system of complete prohibition of their production, storage, circulation and consumption (for example, in relation to heroin and cannabinoids in the CIS countries; an exception is made only for the use of these substances for scientific purposes).

This form of regulation of the production, storage, circulation, and consumption of PAS—through mandatory legislation—is formal (official) control. Violations of this type of regulation (or total prohibition) are sanctioned by administrative or criminal penalties.

Along with formal control, there is also informal control (regulation) of the production, storage, circulation, and consumption of PAS (especially their distribution and consumption), manifested in the form of traditions and rules concerning certain PAS in a given

Table 1: Categories of psychoactive substances

Origin of PAS	Main psychopharmacological effects		
	Sedatives, sleeping pills, and anxiolytics	Stimulants	Hallucinogens
Natural	Alcohol, opioids (raw opium, morphine, etc.), cannabinoids (hashish, marijuana)*	Cocaine, caffeine, nicotine, ephedrine, cannabinoids (hashish, marijuana),* betel, khat, tea	Lysergic acid diethylamide (LSD), “magic” mushrooms (psilocybin) and fly mushrooms (bufotenin), cactus mescal (mescaline), herbal (atropine and hyoscine), volatile inhalants (gasoline, acetone), cannabinoids (hashish, marijuana)*
Semi-synthetic	Opioids (heroin, etc.)	Ephedrone (methcathinone)	Atropine-like mixtures
Synthetic	Benzodiazepines (seduxen, elenium, etc.), neuroleptics (aminazine, etc.), barbiturates (luminal, etc.), phencyclidine,* methadone, buprenorphine	Amphetamine and amphetamine-like synthetics (MDA, MDMA, etc.), phencyclidine*	Phencyclidine,* atropine-like (antiparkinsonian agents like cyclodol), volatile solvents (toluene, trichloroethane, butane)

* Psychopharmacological effects of cannabinoids, phencyclidine, and atropine-like drugs depend on many factors and may vary (Keremi/Mukhambetova 2014).

society and in the society’s attitude towards people involved in any of these stages.

In the process of interpenetration of cultures and intensification of communication, there is a certain levelling of the peculiarities of a particular society’s attitude to a particular PAS and even inversion of this attitude. For example, polar attitudes towards alcohol in Christian (generally positive) and Muslim (generally negative) cultures are now rare—alcohol is legally consumed in almost all countries (except for a few countries that strictly adhere to Sharia

law). However, almost all cultures condemn excessive alcohol consumption (drunkenness), although the definition of “excessiveness” may differ.

A very different transformation of formal (law) and informal (societal attitudes) regulation can be observed with regard to tobacco smoking—more and more countries are adopting legislation limiting the availability (prices), age, and places allowed for cigarette sales and smoking; at the same time, due to widespread awareness of the negative health effects of tobacco, societal attitudes towards smoking are becoming increasingly negative.

It should be noted that the principle of strict control over production, storage, circulation, and consumption (or complete prohibition of the entire cycle) is the basis for the division of PAS into narcotic, psychotropic, and other PAS. Generally, substances classified as narcotic drugs are more strictly controlled than psychotropic drugs and other psychoactive substances.

As a rule, drugs such as neuroleptics, tranquilizers, and antiparkinsonian medications are classified as psychotropics. The drug category contains drugs proper (e.g. morphine, codeine) and other substances (e.g. raw opium, crack cocaine) that are not authorised for medical use. Other PAS include a variety of substances (from coffee and tea to volatile solvents and tobacco) that are regulated much more leniently, most often through a system of taxes and prices. Formally, the classification of substances as narcotics or psychotropic drugs is done by entering them into special tables that are part of international and national legislation regulating the legal circulation of PAS (Keremy/Mukhambetova 2014).

Thus, the use of controlled PAS and, in particular, narcotics, can be legal (e.g. a doctor prescribing opioid analgesics to reduce pain after surgery or to relieve pain in cancer patients) and illegal when the drug is taken in violation of the rules governing its trafficking, such as taking heroin, a substance that is strictly prohibited in almost all countries, morphine obtained illegally and consumed without a doctor’s prescription, or tranquilizers (e.g. sedoxen). In the latter case, the non-medical use of a narcotic or psychotropic drug is also referred to.

Factors Contributing to Drug Addiction

The phenomenon of PAS consumption has long history. Thus, the first references to the use of opium preparations date back to 50-40 centuries BC (six to seven thousand years ago); alcohol: 35-20 centuries BC (four to five and a half thousand years ago); coffee: the 10th century AD; and tobacco (in Europe): the 15th century AD. These and other PAS began to be used by people as they discovered useful properties, including the ability to cause desired psycho-emotional changes (sedation or stimulation, euphoria or a feeling of power, an analgesic effect, etc.).

Initially, these PAS were used as medicines (especially opium), for recreational purposes (festivals, receptions, etc.) or for utilitarian purposes. Advances in technology have led to increasingly “pure” PAS with ever higher concentrations of active ingredients. Thus, their psychoactive effects have increased significantly: compare the amount of wine drunk by the ancient Greeks during festivities (which they still diluted with water) and the amount of hard liquor—vodka, cognac—needed to intoxicate a person, or the potency of raw opium and heroin.

In addition, advances in technology have made it possible to produce incomparably larger quantities of these naturally purified, semi-synthetic (heroin) or fully synthetic PAS (e.g. tranquilizers used in medicine). While in ancient times alcohol was available mainly to the upper social strata and opium was used almost exclusively as a medicine (as an analgesic, tranquilizer, antidepressant, sleeping pill, etc.) by the wealthy, the possibility of industrial production of any PAS made it possible to produce large quantities of it at affordable prices (e.g. alcohol, coffee, tobacco, and opium derivatives such as promedol, morphine, etc.). Consequently, many more people have had the opportunity to consume PAS as medicines, for recreation, or as food.

Many PAS became a profitable commodity, and their turnover became subject to the same economic laws that apply to other goods (including the laws under which overt or covert advertising works). The availability of other PAS, mainly drugs, has become regulated through an international system of stricter control over their trafficking, including control of consumption situations. The development of transportation, commercial, and cultural (in the broad sense of the

word) links has not only increased the availability of PAS physically and led to familiarity with new PAS, but has also contributed to the demand for particular PAS. Thus, PAS availability and demand are the most important macrosocial factors determining the prevalence of PAS use among the population or its specific groups.

The main factors influencing the initiation of illicit substance use are discussed below.

Economic macrosocial factors, such as the employment rate of the population or groups of the population, hence the ability to earn and maintain a decent living for themselves and their families, the availability of social guarantees (e.g. free education, healthcare) and access to social assistance, and the state of peace or war, have an indirect impact on the availability of and demand for illicit PAS. For example, unemployment can encourage people to become involved in small-scale drug dealing: in the 1990s and early 2000s, in many Central Asian countries, women were used as couriers to transport small quantities of drugs to earn money in the face of high unemployment, and sometimes teenagers and even children were used to deliver small doses of drugs.

Lack of sufficient income is as much a risk factor for PAS use or abuse as a monotonous and boring job or lack of opportunities for professional development. As a rule, alcohol and drug use increases in conditions of social tension, not to mention war.

One of the social risk factors for drug use may be internal migration, especially rural–urban migration, if it creates a sense of loss of roots, leads to the destruction of traditional family values and ties and the loss of the social structure present in the native village, involves a process of difficult adaptation to the local culture, or causes a sense of alienation.

The influence of a person's immediate social environment, which in Russian-language literature is referred to as the microsocial environment and in English-language literature as the local community, i.e. the local infrastructure and people who live close to the child and then the adolescent and young adult, especially family, teachers, friends, and, in general, peers is a critical factor in shaping attitudes towards PAS use.

Geographically, this may be a neighbourhood, a few streets, or a group of houses, including a school and other infrastructure. This microsocial environment, through a system of traditions, customs,

and approaches to the upbringing and education of children, adolescents, and young people, shapes their value orientations and social attitudes (what is important and what is unimportant; what is good and what is bad; what to be proud of and what to be ashamed of; how to act in certain situations, etc.).

The state of the infrastructure of the place where a person lives is very important; it reflects the level of social development of the area and the well-being of its residents. The infrastructure of a particular neighbourhood may be poorly developed, e.g. the quality of housing is poor, the housing is cramped, the surroundings are not well maintained, and there are mountains of garbage; schools are poorly equipped, there are not enough teachers, and there are no places for extracurricular activities for children and adolescents, or these services are very expensive and inaccessible to the majority of the population; children spend most of their time without adult supervision and without structured activities. In such places, the risk of initiation to tobacco, alcohol, and drugs is higher than in places of residence with a strong infrastructure, good organisation of upbringing, education, and leisure activities for children and adolescents, cohesion, and a positive emotional atmosphere.

In the modern world, children, youth, and adults are involved in virtual social networks, and their influence becomes very noticeable in the formation of lifestyle and system of human relations (formation of self-esteem, attributing oneself to some social group and accepting its values). These systems (the actual social network and the virtual network), among the general influences on personality formation, determine the acceptability of the consumption of certain PAS; the same factors determine who (only men and/or women too), at what age, in what situations, and in what quantity can take a certain psychoactive drug.

Finally, a person's individual biopsychological characteristics (somehow a product of macro- and microsocial factors) also determine which PAS are consumed (or not consumed) and with what consequences. Biological factors include genetic (endogenous) factors and so-called exogenous factors (brain injuries, diseases, including those suffered by the mother and foetus during pregnancy or birth trauma, the effects of severe stress, etc.)—anything that pathologically changes the functioning of the organism and, first of all, of the brain.

These individual factors, which determine the peculiarities of neuro-biochemical and psychophysiological processes of the human organism, manifest themselves, among other things, in the peculiarities of temperament and other characteristics of the individual (e.g. propensity to panic attacks, anxiety, depression, low pain threshold, etc.). In turn, these features determine the effect in an individual of taking a particular PAS and, accordingly, the repetition of its intake or refusal of it. It should be noted that all of these characteristics alone do not mean that an individual will necessarily start taking PAS. Rather, when given a choice of several PAS, he or she will choose the one that is most available and that has the best effect.

The formed attitude to the intake of a particular PAS and its actual intake may change over the course of an individual's life and depend on the dynamic interplay of macrosocial, microsocal, and biopsychological factors, such as physical inaccessibility of a PAS or, on the contrary, a decrease in its prices, a change in the "fashion" for its intake, awareness of the negative consequences of its intake, disapproval of its intake by significant people or, on the contrary, encouragement of PAS intake, severe stress and the desire to find relief through PAS intake, etc.

In general terms, we can talk about the most typical situations, relationships, and character and personality traits that increase the likelihood of an individual becoming involved in the abuse of legal or illegal PAS.

The most important categories related to the assessment of factors affecting drug use are the categories of risk and vulnerability to HIV infection. Risk refers to the high probability of acquiring HIV infection as a result of unsafe behaviours, including injecting drug use (International AIDS Society 2010). Vulnerability is a set of factors that make a person powerless in the face of life's challenges, including "the ability to avoid the risk of HIV infection".⁵

Factors that make people vulnerable include a lack of knowledge about HIV or lack of skills to avoid risky behaviours; inability to access condoms, clean needles, or other means of protection; gender

5 International AIDS Society/NIDA (2010): Prevention and treatment of HIV/AIDS in drug users: a global perspective, p. 82.

or material inequalities; and discrimination and stigma that keep people from changing risky behaviours.

These factors, individually or together, if prevalent in a community, create collective vulnerability. Vulnerability does not depend on how high HIV prevalence is. If HIV vulnerability is high, it is likely that individuals or the community will be more at risk of HIV infection when HIV prevalence increases in that setting.

Psychological and Physiological Consequences of Drug Addiction

The consequences of consuming a psychoactive drug depend on its chemical nature, the purity of the PAS (concentration of active ingredients and the presence of adulterants), the dose taken, the frequency of intake, the method of introduction into the body, the health status of the person, and the social situation in which the intake of this PAS occurs. The health and social consequences of illicit injecting opioid use are summarised below (Keremi/Mukhambetova 2014).

Health disorders associated with drug use

Acute health disorders:

- overdoses,
- allergic reactions,
- trivial infections (abscesses, phlebitis).

Chronic health disorders:

- addiction syndrome,
- viral hepatitis B and C,
- HIV infection,
- tuberculosis,
- Sexually transmitted infections (STIs),
- mental disorders, including depression,
- chronic septic processes,
- phlebitis and sclerosis of veins.

Social consequences of drug use

- financial hardship,
- job loss,
- problems in the family: divorce, neglect of children's upbringing, domestic violence, psychological trauma in children, drug use by children, deprivation of parental rights, abandonment of a child.

Conflict with the law (administrative or criminal punishment): arrest, imprisonment

Many consequences of drug use are interrelated. For example, fear of discrimination causes many Injecting drug users IDUs with HIV infection to hide the fact that they use drugs from HIV care providers and other health workers. This increases the risk of diagnostic errors and drug-drug interactions between prescribed antiretrovirals and illegal drugs. Often, financial problems lead drug users, especially women, to engage in sex work to earn money (and buy drugs), putting themselves at additional risk of violence and STIs, including HIV infection.

Lack of money to buy drugs, especially if drug users are unemployed, may push individuals to commit crimes, most often theft. Drug users can also be arrested and convicted of drug trafficking (possession and distribution) when they sell small quantities of drugs in their community. The imprisonment of a drug user may increase the risk of contracting blood-borne diseases, STIs, or tuberculosis if the prison does not provide effective prevention and treatment. Physical and sexual abuse is not uncommon in prison, and inmates of IDUs suffer from depression and anxiety disorders and suicide.

Financial difficulties, employment problems, emotional changes typical for drug users, and, in case of chronic drug use, loss of previous life goals lead to the aforementioned problems in the family. In addition to the family, the immediate environment, one way or another, is affected by the problems of the drug user (borrowing money from friends and neighbours without repaying debts, the family asking for help in cases of scandals, etc.). In the vast majority

of cases, the above consequences are observed in persons with drug addiction.

It is clear that the whole society also bears a certain economic burden associated with the consequences of drug use. These are, first of all, the high costs of treating HIV infection, hepatitis B and C, and multi-resistant tuberculosis, not uncommon among IDUs with HIV, as well as other health disorders. Costs are also associated with the need to provide social assistance to families of IDUs left without breadwinners; significant costs are associated with criminal prosecution, court proceedings, and detention of IDUs in penitentiary institutions.

As mentioned above, the consequences of illegal drug use negatively affect not only the life of the drug user (DU), but also the life of his/her family, other people in the immediate environment, and society as a whole. Part of the impact depends on the chemical nature of the drug, on its purity and the way it is administered, and more specifically on the behaviour of the drug user, while another part depends on the attitude of society towards drug use and drug users themselves, as well as on the legislation related to drug control and regulating the provision of health and social services for drug users.

The problem of stigmatisation and discrimination is one of those issues that requires special attention from the public, legislative bodies, and state authorities. Thus, studies show that there is still a high level of stigma and discrimination in healthcare and in Primary health care (PHC) organisations, as well as in receiving sexual and reproductive health services. According to the Central Asian Association of People Living with HIV (PLHIV), discrimination against women who use drugs, women living with HIV, sex workers, and women in prisons is institutionalised. This discrimination leads to the criminalisation of marginalised groups of women, the violence and cruelty they face in state institutions, violation of parental and reproductive rights, disclosure of HIV status, and the access of women who use drugs to opioid substitution therapy.⁶ Self-stigmatisation is also high.

6 Central Asian Association of PLHIV (2022): People Living with HIV Stigma Index 2.0. Report on the results of the study, p. 44.

Discrimination follows stigma and is “the unfair or biased treatment of an individual on the basis of their real or perceived status. Discrimination occurs when some kind of exclusion is made against a person, resulting in unfair or biased treatment based on their membership or perceived membership in a particular group.”⁷ Stigma and discrimination violate basic human rights and can manifest themselves at various levels, including political, economic, social, psychological, and institutional. Prejudice and stigmatisation often encourage people to do something or not to do something that excludes another person from receiving services or infringes on their rights.

Approaches have now been developed to mitigate the consequences of drug use in ways that improve the health and social status of the Drug user and his/her family and economically benefit society as a whole. The non-governmental sector plays a major role in the implementation of prevention and treatment of drug addiction, as well as interventions related to the consequences of PAS use.

Treatment of Drug Addiction and the Role of NGOs

Drug addiction is a preventable and treatable disease, and there are effective ways to prevent and treat it. The best results are achieved when there is an integrated, multidisciplinary approach with a variety of pharmacological and psychosocial interventions to address the different needs of patients. The same skilled, systematic, evidence-based approach should be provided for the treatment of drug addiction as is used for the treatment of other chronic diseases that were considered untreatable decades ago.

Psychoactive substance addiction treatment is “any structured intervention with the prescription of medication or the use of psychosocial techniques aimed at reducing the use of an illegal drug or abstinence from taking it with the goal of improving the patient’s health” (European Monitoring Center for Drugs and Drug Addiction (EMCDDA) 2002).⁸

7 UNAIDS (2021): HIV, Stigma and Discrimination. In: Human Rights Fact Sheet Series, No. 7.

8 Cited in EMCDDA (2008): Report on the quality of drug addiction treatment organizations in Europe.

The ultimate goal of drug addiction treatment is to stop illegal drug use, to improve the patient's physical and mental health, and to fully integrate the patient socially, i.e. they fulfil a useful, fulfilling role in the family, workplace, and community. It is well known that even after a very long period of abstinence from PAS, the signs of addiction (tolerance, withdrawal, and strong craving for the substance) return very quickly. This is why we speak of recovery, remission, stabilisation of the patient's condition, but not of recovery from addiction. There are also spontaneous remissions, which largely depend on social factors that influence a person's behaviour.

There is a significant group of people with addiction, especially opioid addiction, who never reach the goal of complete cessation of use of this group of drugs; their condition can, however, be stabilised through years of maintenance treatment with opioid agonists. With successful treatment, their functioning becomes virtually indistinguishable from that of non-dependent individuals.

There are two main approaches to the treatment of drug addiction: 1) psychosocial interventions, where improvement in the patient's condition (behavioural change) is expected as a result of the application of certain psychological techniques, but without the use of medications; 2) pharmacological treatment, aimed at the alleviation of withdrawal symptoms, treatment of comorbid health disorders, and continuation of maintenance therapy with medications.

Currently, the most commonly used approach is pharmacological treatment with psychosocial support, which means a combination of specific pharmacological and psychosocial interventions that are delivered with the aim of both reducing illicit drug use and opioid-related harms and improving quality of life. It should be noted that many psychosocial techniques and interventions are available, while there are few effective pharmacological treatments for drug addiction.⁹

Effective treatment results in the patient regaining control over his or her own behaviour, i.e. blocking compulsive drug-seeking behaviour. His or her response to "normal reward stimuli" is improved, interpersonal relationships are restored, and quality of life is improved.

9 WHO (2010): Guidelines for the pharmacological treatment of opioid addiction with psychosocial support.

As stated in the International Standards for the Treatment of Substance Use Disorders (WHO/UNODC 2020), “there is no single treatment modality that can work for everyone without exception. The response must be comprehensive and tailored to meet the needs of individuals. Wherever possible, appropriately coordinated and diverse services, including mental health, psychological and emotional support, social and other support services (including assistance with housing, training or employment and legal aid where necessary), and other specialized health care services (e.g. for HIV, HCV, TB and other co-morbidities) should be involved in treatment implementation”.¹⁰

The International Standards for the Treatment of Substance Use Disorders (WHO, UNODC, 2020) indicate¹¹ that the treatment system for substance use disorders should be organised hierarchically, from informal community-based care (outreach, self-help groups, informal support from family and friends) to long-term residential services.

One of the key factors in the success of rehabilitation work is managing to solve the social problems of drug users when they're in the first stages. The results of recent studies show that the system of comprehensive psychosocial rehabilitation is based on the principle of multidisciplinary, whereby a doctor, psychiatrist, and drug addict, along with a medical psychologist, psychotherapist, social work specialist, and social worker, work together, which significantly expands both the range of assistance offered to a patient with addiction and the individual's knowledge and skills

The most common model is that of a coordinated integrated network that includes various components of the local health and social care system. Low-threshold entry-level services (such as outreach and support centres) with defined referral mechanisms for clinical drug treatment and accompanying social care are an important element of such a network. In this way, partnerships are made not only

10 VOZ, UNP UNITED NATIONS (2020): International Standards for the Treatment of Substance Use Disorders: revised edition to reflect field trials, p. 22.

11 Raspopova N.I./Jamantayeva M.Sh./Marhabayeva R.A. (2019): The role of social and personality factors in the genesis of addictive disorders. In: Bulletin of KazNMU, No. 1. www.cyberleninka.ru/article/n/rol-sotsialnyh-i-lichnostnyh-faktorov-v-geneze-addiktivnyh-rasstroystv, 5. 4. 2024.

between different public health and social protection services, but also with other stakeholders: NGOs (including those providing outreach services, training, selected follow-up activities); police (participation in screening, referral to treatment); the criminal justice system (including provision of treatment as an alternative to conviction and punishment, as well as provision of treatment for drug use disorders); and other stakeholders.

In Kazakhstan, drug addiction treatment and subsequent rehabilitation is integrated with the mental healthcare system. Treatment is provided in various forms: inpatient treatment for detoxification, medical and social rehabilitation, therapeutic communities, inpatient treatment for detoxification; medical and social rehabilitation; therapeutic communities; inpatient substitution treatment, including day hospitals for maintenance and relapse treatment; outpatient treatment for maintenance and relapse treatment; and opioid substitution therapy (available in 13 cities). Drug addiction treatment is provided by specialised state organisations within the guaranteed volume of free medical care (GFMC),¹² and there are also private practitioners' services.

According to state official statistics, as of 1st January 2024, 108,722 people in Kazakhstan were under dynamic observation with a diagnosis of “mental behavioural disorders” due to PAS use, including 18,329 with addiction to narcotic drugs and psychotropic substances (Central Communications Service under the President of the Republic of Kazakhstan, 2024). Of these drug addicts, 91% (16,817 people) are men, 9% (1,512 people) are women, and 15% (2,734 people) are young people between 18 and 29 years of age. By type of substance used, 33.2% (6,080 people) are dependent on opioids, 35.4% (6,488 people) are dependent on cannabinoids, and 4.3% (798 people) are dependent on synthetic drugs (Central Communications Service under the President of the Republic of Kazakhstan 2024).

The non-governmental sector plays a crucial role as a partner to the state in various areas. In the Comprehensive Plan to Combat

12 According to the data of the Central Communications Service under the President of the Republic of Kazakhstan, is conducted in outpatient conditions in 77 primary mental health centers, in 205 mental health rooms deployed at district hospitals, in 20 hospitals, and at one republican scientific-practical centre. www.ortcom.kz/ru/ekspertnoe-obsuzhdenie/1708410665

Drug Addiction and Drug Trafficking in the Republic of Kazakhstan for 2023–2025, NGOs are set to be involved in several key initiatives. These include countering drug advertising and promotion on the Internet by distributing graffiti and other information about drug-related websites, with the support of NGOs, bloggers, IT specialists (including hackers), volunteers, and other public members. Additionally, the plan outlines the creation of a localized model to combat drug addiction, tailored to regional specifics, involving NGOs, local government, active citizens, media, and others. The plan also emphasizes the importance of providing informational support for anti-drug activities conducted by state bodies and NGOs, particularly focusing on the issue of drug addiction among young people, with relevant content being posted on the website www.eljastary.kz.¹³

In Kazakhstan (Law of the Republic of Kazakhstan on Public Associations 1996), the right to freedom of association is one of the most important constitutional rights of man and citizen, the realisation of which meets the interests of society and is protected by the state (Law of the Republic of Kazakhstan on Public Associations 1996).

A non-profit organisation is a legal entity that does not have as its main purpose the extraction of income and does not distribute the net income received among its participants (Law of the Republic of Kazakhstan on Non-Profit Organizations 2001).

Kazakhstan has an information database formed to ensure transparency of the activities of non-governmental organisations and to inform the public about them, as well as for use in the placement of the state social order, the state order for the implementation of strategic partnerships, grants, and prizes (Law of the Republic of Kazakhstan “On the State Social Order, Grants and Prizes for Non-Governmental Organizations” 2005).

The web portal www.infonpo.gov.kz (NGO Database 2024) was created to provide information on non-governmental organisations in electronic form. Information is provided by non-governmental organisations annually until 31st March of the year following the re-

13 Comprehensive Plan to Combat Drug Addiction and Drug Trafficking in the Republic of Kazakhstan for 2023–2025. Approved by Resolution of the Government of the Republic of Kazakhstan [No. 508, 29 June 2023].

porting period. Non-governmental organisations provide information on their activities, indicating information for the reporting period and information on projects implemented in the current year.

A non-governmental organisation is understood as a non-profit organisation (except for political parties, trade unions, and religious associations) established by citizens and/or non-governmental legal entities on a voluntary basis to achieve common goals in accordance with the legislation of the Republic of Kazakhstan. A non-governmental organisation is also understood as a representative office and a branch (a separate subdivision) of a foreign or international non-profit organisation operating in the territory of the Republic of Kazakhstan.

In general, the analysis of available information and our own experience of working in projects allows us to say that the range of services provided by NGOs is quite wide, including work in educational institutions on primary prevention of drug addiction, the organisation of explanatory activities and the provision of information, social support for drug addicts who have undergone treatment, participation in the National Preventive Mechanism (NPM), and work in prisons on HIV prevention.

An important component of the civil sector's work in the field of drug addiction treatment and rehabilitation is peer outreach work. International experts recommend it as an extremely effective method of working with IDUs, since drug user communities (as well as PLHIV) are very closed groups: they are outside or in conflict with the law, are subject to discrimination and condemnation, and are therefore forced to lead a closed lifestyle.

Outreach is effective in identifying interconnected groups of people who use drugs, recruiting them to use services provided by harm reduction programmes, establishing trusting relationships between programme staff and people who use drugs, and distributing sterile injecting equipment and educational materials. These programmes can also advise people in need to seek drug addiction treatment and healthcare (including HIV testing and counselling) and offer social assistance (including legal support).

Outreach work is used to implement prevention programmes among IDUs in particular to disseminate knowledge and tools to prevent HIV infection, STIs, and diseases related to injecting drug use: clean needles and syringes, antiseptic solutions, bandages,

medications (including for overdose prevention and elimination), condoms, informational and educational materials (newspapers, leaflets, booklets), and so on.

The outreach implementer or outreach worker directly distributes HIV/STI prevention commodities to drug users. Through the outreach worker, drug users get access to the services of specialists such as doctors, psychologists, and lawyers. Most outreach projects employ either drug users themselves or people who have used drugs in the past.¹⁴

Outreach is a very effective tool for HIV prevention activities such as needle and syringe exchange programmes (NSPs), condom programmes, and targeted information, education, and communication (IEC) programmes targeting IDUs. In addition, outreach can provide referrals to injecting drug users for treatment such as opioid or maintenance substitution therapy (OST or MST) and antiretroviral therapy (ART).

The contribution of the Public Foundation (PF) “Aman-Saulyk” in the treatment of drug addiction for patients of OST/PST programmes during the Covid-19 pandemic is very illustrative. Patients in the OST program are part of vulnerable population groups, with many being unemployed and in need of assistance. This issue became especially pressing during the COVID-19 pandemic (Zhanazarov 2021). The Public Foundation ‘Aman-Saulyk,’ with grant support from the Soros Foundation-Kazakhstan, implemented a project titled ‘Supporting Patients of the OST/PST Program During the COVID-19 Pandemic.’¹⁵ from June 2020 to March 2021. The objective of the project was to provide assistance to patients of the OST/PST programme in the form of personal protective equipment (PPE, i.e. disposable medical masks and personal antiseptics), money for transportation costs, food kits, and hygiene products. This entire amount of assistance was provided to

14 NGO Manager’s Handbook (2004): Part IV. Collection of materials on organization of outreach work and consulting in harm reduction programs implemented by NGOs. Poltava, p. 8.

15 Zhanazarov S. (2021): Case study on ensuring access to medical services for vulnerable groups of population during the pandemic. In: Civil society and non-governmental organizations in the Republic of Kazakhstan. Almaty: Agt Depo studio, pp. 63–66.

the participants of the programme at OST/PST sites in the Mental Health Centers of Aktobe, Almaty, Atyrau, Karaganda, Kostanai, Kyzylorda, Pavlodar, Semey, Taraz, Ust-Kamenogorsk, Uralsk, and Ekibastuz. From June 2020 to March 2021 the number of patients in the MHT programme in these cities increased from 286 to 319 (Zhanazarov 2021).

NGOs often become participants in large-scale research on the institutional framework for the realization of the rights of vulnerable groups and implement programmes to advocate for the rights of vulnerable groups, especially when it comes to gender issues. For example, Lubov Chubukova, one of the coordinators of the Kazakhstan Union of People Living with HIV, one of the largest NGOs in the country, participated in the Soros Foundation-Kazakhstan's New Generation of Human Rights Defenders fellowship project "The right of drug dependent women to freedom from torture and ill-treatment during pregnancy and childbirth" in 2016–2018.¹⁶

In 2017, she was part of a team of activists who in 2017 began writing Kazakhstan's first ever thematic report on the implementation of the UN Convention on the Elimination of All Forms of Discrimination against Women in the field of HIV infection. Chubukova's research focused on the state's responsibilities towards pregnant women who use drugs: "Drug use is associated with a higher risk of violence – from a partner, the police, other people. Therefore, the risks of such pregnancies are also high. I managed to interview 34 women in one month. The largest percentage of them decided to terminate the pregnancy, 25 percent did it on the recommendation of a doctor. Percentages of 20 are miscarriages and frozen pregnancies. The number of cases that ended in childbirth is 15 percent." The analysis of the legal framework, case studies, interviews, and focus groups led to the conclusion that there is stigmatisation and discrimination of pregnant women who use or have used drugs by medical personnel, a lack of medical protocols on the provision of care and treatment to women who use or have used drugs during

16 Radio Azzatyk: Interview with Chubukova L. "Drug addicts and pregnancy is a topic nobody needs." www.rus.azattyq.org/a/drug-addicts-and-pregnancy-in-kazakhstan-for-the-international-day-against-violence-against-women/29617300.html, 25. 11. 2018.

pregnancy and childbirth, and a lack of necessary competencies among doctors to manage such cases of pregnancy.

Statistics on NGOs operating in the Republic of Kazakhstan show 22,240 registered NGOs, including 5,856 organisations that submitted timely reports for 2021 (NGO Database 2024), which have formed into stable groups for various purposes: social, cultural, scientific, educational, charitable, and managerial purposes; protection of the rights and legitimate interests of citizens and organisations; resolution of disputes and conflicts; meeting the spiritual and other needs of citizens; protection of citizens' health; and protection of the environment,

Table 2: Funding of NGOs in Kazakhstan for 2024

Funding	Number of NGOs	Number of donors	Number of projects	Amount in tenge /euro in thousands	Share of funding in %
Government	192 (55.33 %)	266 (59.91 %)	386 (55.30)	6 016 796 / 12 279	57.51 %
Kazakhstan commercial	18 (5.19 %)	30 (6.76 %)	41 (5.87 %)	781 709 / 1 595	7.47 %
Kazakhstan non-profit	48 (13.83 %)	58 (13.06 %)	75 (10.74 %)	1 510 389 / 3 082	14.44 %
Foreign commercial	3 (0.86 %)	3 (0.68 %)	3 (0.43 %)	1 432 200 / 2 000	19.56 %
Foreign non-profit	26 (7.49 %)	48 (10.81 %)	77 (11.03 %)	2 046 032 / 4 175	0.01 %
Self-funding	60 (17.29 %)	39 (8.78 %)	116 16.62 %)	105 309 / 214 000	1.01 %

More than 1,500 NGOs that receive state funding are registered on the official websites of the Non-profit Joint Stock Company (NJSC) “Centre for Support of Civic Initiatives”. The mission of this NJSC is to assist NGOs in the implementation of social projects of the state.

According to the data of the NAO “Center for Support of Civic Initiatives” for 2017–2021, there are a total of 308 projects, of which 84 (27.3 %) are aimed at promoting the development of civil society, 55 (17.8 %) are aimed at promoting support for youth policy and children’s initiatives, 54 (17.5 %) are aimed at promoting the protection of rights and legitimate interests of citizens and organisations, 16 (5.2 %) are aimed at promoting the achievement of goals in the field of education, science, information, physical education, and sports, and eight (2.5 %) are aimed at promoting health protection and healthy lifestyles (cisc.kz 2021). There are no projects on social support of people who inject drugs. The NGO Database reports that between 2020 and 2022, a total of 3,794 projects were carried out across different sectors. These initiatives involved 311 NGOs and were supported by 432 donors. In total, 698 projects were tracked, with a combined budget of 10,461,671,123.36 KTZ.

As of 1st April 2024, 698 projects worth 10 billion 462 million tenge (21 million 350 thousand euros) were implemented in the register of projects of branches and representative offices of NGOs. At the same time, 55.3 % (386) of the projects are financed by the state to the value of 6 billion 16 million tenge (12 million 279 thousand euros), which is 57.5 % of the total amount of funding.

In 2006, there were 62 non-profit public organisations working in the field of HIV/AIDS prevention in the country, of which 36 worked with vulnerable groups and only three worked with people living with HIV/AIDS (Aimagambetova, Tokpanova, Musina & Abdrakhmanov 2012).

In the register of NGO projects dealing with HIV infection, 56 projects were identified in the following areas (2020):

- Protection of citizens' health, promotion of healthy lifestyle (28);
- Support of socially vulnerable population (21);
- Provision of assistance to a person (family) in a difficult life situation (4);
- Other socially significant directions not contradicting the legislation of the Republic of Kazakhstan (3).

International non-profit organizations provide 60.5 % of the grants for HIV prevention projects. These organizations include the Global Fund to Fight AIDS, Tuberculosis, and Malaria; the United Nations Population Fund (UNFPA); the United Nations Development Programme in Kazakhstan; the United Nations Office on Drugs and Crime; the United States Agency for International Development (USAID); the International Center for AIDS Care and Treatment Programs (ICAP) at Columbia University in Central Asia; and several others. In addition, there is a practice in Kazakhstan of providing a state social order. This is a form of implementation of social programs and projects aimed at solving problems in the social sphere at the expense of the state budget. The executors of the state social order are non-governmental organizations (Law of the Republic of Kazakhstan "On State Social Order, Grants and Awards for Non-Governmental Organizations" 2005).

Realisation of the state social order, provision of state grants, and awarding of prizes are carried out in the following spheres:

- 1) achievement of goals in the field of education, science, information, physical culture, and sports,
- 2) protection of citizens' health and promotion of healthy lifestyles,
- 3) environmental protection,
- 4) support of youth policy and children's initiatives,
- 5) assistance in solving family, demographic, and gender issues,
- 6) support for socially vulnerable segments of the population,

- 7) assistance for orphans and children from single-parent and large families,
- 8) assistance in ensuring labour employment of the population,
- 9) protection of the rights and legitimate interests of citizens and organisations,
- 10) development of culture and art,
- 11) protection of historical and cultural heritage,
- 12) strengthening social harmony and national unity,
- 13) assisting probation services in providing social and legal assistance to persons on their books,
- 14) conducting public monitoring of the quality of public services,
- 15) promoting the development of civil society, including increasing the effectiveness of non-governmental organisations,
- 16) development and support of volunteer initiatives.

The realisation of the state social order is also carried out in the areas of:

- 1) providing assistance to a person (family) in a difficult life situation,
- 2) formation of responsible treatment of animals, including support of animal shelters,
- 3) preservation and reproduction of Kazakh dog breeds,
- 4) in other socially significant areas, not contradicting the legislation of the Republic of Kazakhstan.

Analysis of the official Public Procurement Portal of the Republic of Kazakhstan Joint Stock Company (JSC) “Center of Electronic Finance Ministry of Finance of the Republic of Kazakhstan” (Register of lots, 2024) showed that the procurement of state social order was found for 30,444 records, of which 4,349 were for 2023, 3,324 were for 2022, and 3,235 were for 2021. Each record includes the name of the announcement, lot description, amount, procurement method, and lot status.

In addition, the searching of state social orders aimed at social work with PLHIV and prevention of HIV infection showed that in 2021 there were two purchases of services ordered by the regional AIDS prevention and control centres, and in 2022 there were four.

Analysis of the technical specifications of the procured services within the framework of the state social order showed the main directions to be:

- achievement of UNAIDS goals by 2030: 90 % of people living with HIV will know their status and 90 % of people knowing their status will be in therapy,
- improving the level of adherence to Antiretroviral therapy (ARV),
- provision of social assistance to HIV-positive children and adolescents for schooling,
- provision of assistance to children and their parents and guardians in disclosing their status,
- prevention of HIV infection in key groups populations, in particular among PWID.

Conclusion

Treatment of drug addiction is a complex task that requires a comprehensive approach. Effective therapy should include pharmacological methods aimed at reducing withdrawal symptoms and maintenance therapy, as well as psychosocial interventions aimed at changing the patient's behaviour and improving his or her psycho-emotional state. The ultimate goal of treatment is not only to stop illegal drug use, but also to fully integrate the patient into society, restore interpersonal relationships, and improve quality of life.

Kazakhstan currently has a fairly developed system of treatment and rehabilitation of drug addicts, integrated with the system of psychiatric care. Treatment is provided both in state institutions and by private organisations and includes various forms of assistance, from inpatient treatment to outpatient support. An important part of the treatment system, especially for patients addicted to opioids, is opioid or maintenance substitution therapy, which is implemented in 13 cities of the Republic.

Non-governmental organisations play an important role in the prevention and treatment of drug addiction, especially when it comes to outreach work, advocacy, and large-scale research on drug addiction. Active involvement of NGOs in anti-drug activities at the state level is envisaged by the Comprehensive Plan to Combat Drug Addiction and Drug Business in the Republic of Kazakhstan for 2023–2025.

Thus, successful treatment of drug addiction is possible only through close cooperation between governmental structures and

non-governmental organisations, application of scientifically based treatment methods, and a comprehensive approach to the rehabilitation of patients.

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