

Mariya Prilutskaya [Ed.]

New Psychoactive Substances

Studies from Central Asia and China



Nomos

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Preface

I am pleased and honored to introduce this important new book that explores the spread of novel psychoactive substances (NPS) in Central Asia and China. While, the drug markets in these regions have historically been dominated by opioids and cannabis, in recent years, there has been a noticeable shift towards more potent synthetic analogues of these substances. Their strategic locations at the crossroads of major global trafficking routes, coupled with complex socio-economic conditions, make these regions particularly vulnerable to the proliferation of previously unknown and potent NPS. Such a rapidly changing drug landscape not only intensifies the health risks faced by their populations, but also presents new and urgent challenges for public health and law enforcement, underscoring the need for comprehensive, multi-faceted responses.

This book, written by leading experts, provide crucial insights into these developments. It emphasizes the urgent need for targeted strategies and policies to address the escalating threat posed by NPS in these regions. Whether you focus on specific chapters or read the entire book, you will encounter the most thorough and up-to-date research available on NPS in the context of Central Asia and China.

So far, over 1 087 NPS have been identified by the United Nations and European Commission Early Warning Systems between 2009 and 2021 in 133 countries and territories, including China, with an average of a new substance still been detected on the illicit market every week.

The complexity of the situation we experienced during the past decade is inextricably tied up with globalisation, the internet and rapid changes in technology and lifestyles across the planet. The solutions, therefore, cannot be proposed and implemented by a single nation, but will require the will, dedication, and investment of all the countries involved as they join forces to protect the health and security of citizens. To support this effort, we have recently established the International Society for the Study of Emerging Drugs (ISSED), aimed at fostering international collaboration and information-sharing on NPS.

I strongly believe, that through cooperation, collaboration, and a global perspective, we can overcome the harms of drugs in society and safeguard the health and welfare of humanity.

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Table of contents

Introduction

1. Charting the Unknown: Understanding and Addressing New Psychoactive Substances in Central Asia and China 13

Mariya Prilutskaya

I. Country Overviews

2. New Psychoactive Substances in Kazakhstan: Challenges, Enforcement, and Policy Approaches 29

Mariya Prilutskaya, Almas Kussainov, Gulzhan Altybayeva

3. New Psychoactive Substances in Kyrgyzstan: Public Health Risks and Policy Responses 47

Elena Molchanova, Sergei Bessonov, Zhyldyz Bakirova, Tatiana Galako, Danil Nikitin

4. Review of New Psychoactive Substances Use: Trends, Challenges, and Strategies in the Context of Uzbekistan 67

Guzalkhon Zakhidova, Jakhongir Ravshanov, Gulnoza Abdukakharova

5. New Psychoactive Substances in the Republic of Tajikistan: The Latest Developments, Challenges, and Solutions 83

Naimdzhon Malikov, Vladimir Magkoev

6. Unpacking New Psychoactive Substances in China 101
Haifeng Jiang, Yifan Xu

II. Harms and Social Risks of NPS Use in Vulnerable Populations

7. Primary Prevention of Synthetic Drug Addiction among the Youth of Kazakhstan: The Public's View 131

Zhandos Aktayev

8. Synthetic Drug Issues in Kazakhstan: Emphasising Youth and Women's Involvement 147

Mariya Prilutskaya, Valentina Mankieva

9. Exploring the Intersection: New Psychoactive Substances, Gay, Bisexual and other Men who have sex with men, and Chemsex in Central Asia 163

Vitaliy Vinogradov, Nikolay Lunchenkov

10. New Psychoactive Drugs in European Prisons 191

Heino Stöver, Ulla-Britt Klankwarth

III. Demand Reduction

11. New Psychoactive Substances: Understanding the Health Risks and Clinical Impacts 211

Ainur Shukimbayeva, Aigerim Zhumasheva, Mariya Prilutskaya

12. Web Outreach and NPS: A New Aspect of Online Harm Reduction (Illustrated by the Example of the St Petersburg Charitable Fund 'Humanitarian Action') 231

Alexei Lakhov, Nikolai Unguryan

13. Navigating New Drug Challenges: The Societal Impact of Compulsory Drug Treatment and Legal Penalties	249
<i>Zhanara Nurseitova</i>	
Biographies	265
List of Acronyms	275

Introduction

1. Charting the Unknown: Understanding and Addressing New Psychoactive Substances in Central Asia and China

Mariya Prilutskaya

The Evolving Challenges of New Psychoactive Substances in Central Asia and China

The global landscape is undergoing profound transformations across various sectors, including economics, politics, and society, and these changes are closely mirrored in the evolving dynamics of the fight against drug-related threats. As nations grapple with the complexities of modern governance and social challenges, the issue of narcotics and psychoactive substances has become more intricate, requiring innovative and adaptive strategies. While there has been significant progress in developing new approaches to treatment, rehabilitation, and harm reduction, the battle against these substances continues to demand an evolving and multifaceted response.

In the context of Central Asia and China, the emergence of new psychoactive substances (NPS) has introduced a formidable challenge to existing drug control frameworks. These regions, already vulnerable due to their strategic locations and socio-economic conditions, are witnessing a surge in the production, distribution, and consumption of these substances. The rapid proliferation of NPS, often designed to evade current legal controls, complicates efforts to mitigate their impact. This reality underscores the importance of flexible and dynamic policy responses that can keep pace with the rapidly changing nature of the drug trade.

NPS are marketed under various names, including ‘legal drugs’, ‘herbal drugs’, ‘bath salts’, and ‘chemicals’. For the sake of terminological consistency, this book consistently uses the term ‘new psychoactive substances’. This term refers to ‘substances of abuse, either in their pure form or as part of a preparation, which are not regulated under the 1961 Convention as amended by the 1972 Protocol, or the 1971 Convention, but may still pose a risk to public health’. The word ‘new’ in the term does not necessarily imply that these substances have been recently created—some were synthesised as

far back as 40 years ago—but rather highlights their recent emergence in the market (UNODC 2017).

Drug use in Central Asian countries remains prevalent due to a variety of external and internal factors influencing their development. The Republic of Kazakhstan, the Kyrgyz Republic, the Republic of Tajikistan, and the Republic of Uzbekistan are part of the ‘Northern Route’, which is a key corridor for the trafficking of narcotic drugs from Afghanistan to Russia and Europe. The Northern Route, historically known as the ‘Northern Silk Road’, has evolved into a significant corridor for drug trafficking, linking Afghanistan with Russia and Eastern Europe through Central Asia. Originally, this ancient trade route was not associated with the illegal drug trade. However, in the 1990s, traffickers began to exploit this passage as an alternative route. Today, it serves as the primary artery for the illicit flow of drugs between Asia and Europe. The route begins at Afghanistan’s northern border, weaving through Tajikistan, Kyrgyzstan, Turkmenistan, Uzbekistan, and Kazakhstan before reaching the Russian and European markets (UNODC 2018).

The functioning of the Northern Route is significantly influenced by the geopolitical situation in the region. For instance, the change of regimes and the rise to power of the Taliban in Afghanistan led to a sharp decrease in the volume of illegal opioid production. The Taliban has prohibited poppy cultivation, yet drug enforcement agencies in Central Asia report that drug production persists in clandestine laboratories (Fazl-e-Haider 2024). The latest information from law enforcement agencies in the Central Asian region indicates a gradual infiltration of synthetic drugs originating specifically from Afghanistan and Iran and the restoration of illegal capacities along the Northern Route. This route is now used not only for transporting heroin but also methamphetamine. This raises significant concerns when considering and forecasting future threats to the region (Faura et al. 2023).

Thus, just by examining the operation and life cycle of the Northern Route, one can observe the evolution of drug trafficking in the Central Asian region. The changing range of psychoactive substances produced in the territories bordering Central Asia is a key factor determining the spectrum of challenges facing the region. The influx of a diverse array of psychoactive substances, including NPS, flooding into Central Asia contributes to the diversification of drug markets, leading to the emergence of a wider variety of psychoactive substances available to potential consumers and customers of drug shops. Alongside this, there is a shift in marketing schemes, moving away from direct contact between potential sellers and

buyers, which presents a significant challenge in combating the supply of drugs, including new psychoactive substances (Faura et al. 2023).

Despite the fact that for a long time, the illegal markets of Central Asian countries were dominated by opioid drugs of plant-based or semi-synthetic origin, as well as plant-based cannabis, there is a steady shift towards synthetic analogues of these psychoactive substances, along with the active penetration of stimulant drugs into these countries.

The snapshot study conducted within the framework of the Central Asia Drug Action Programme (CADAP) in March 2017 revealed a concerning trend of increased availability of NPS in Central Asia through online platforms. The study identified 160 online shops targeting the population of Central Asian countries, offering a wide range of synthetic and herbal substances with psychoactive effects. A significant number of these shops, 119 of them to be precise, specialised in synthetic substances, offering a total of 1,080 different drugs. Among these, synthetic cathinones and synthetic cannabinoids were the most prevalent, with mephedrone emerging as the most frequently offered substance (Grohmannová et al. 2018). The study highlighted the dominance of synthetic substances in the online NPS market in Central Asia, with synthetic cathinones available from 58 online shops and synthetic cannabinoids from 27. The diversity of substances, particularly within these two chemical groups, indicated a sophisticated and widespread online marketplace catering to various consumer demands. The easy access to these substances through the internet raises significant public health concerns, as synthetic drugs like mephedrone and synthetic cannabinoids are known for their unpredictable and often severe effects on users. This widespread availability of potent synthetic drugs underscores the urgent need for enhanced regulation and monitoring in the region (Grohmannová et al. 2018).

The findings from that study pointed to broader challenges for Central Asia, as the region grapples with the growing presence of NPS in the digital marketplace. The online nature of these transactions complicates efforts to control the spread of NPS, necessitating stronger regulatory frameworks and cross-border cooperation. Moreover, the public health risks associated with these substances call for comprehensive responses, including education and awareness campaigns targeting vulnerable populations. As the online sale of NPS continues to evolve, Central Asia must take coordinated action to mitigate the impact of these dangerous substances on its population.

The rapidly developing market and the formation of transnational groups involved in the production and trafficking of NPS in Central Asia raise the issue of the need for cross-border law enforcement operations to catch criminals. Modern realities emphasise the necessity of creating an early warning system for NPS, which would circulate information not only about the volumes seized but also accumulate a database of confiscated formulas and the risks associated with the circulation and use of specific NPS. Moreover, an important element of the system is ensuring access to information for interested scientists and specialists in the healthcare and social services sectors who provide assistance in the prevention, treatment, and harm reduction related to NPS. The issue of the need to establish an early warning system in Central Asia was first raised at the international level by the United Nations Office on Drugs and Crime (UNODC) in 2017. For a long time, according to UNODC data, Central Asia remained a relatively 'closed' region for synthetic drugs of the amphetamine-type stimulant group (such as methamphetamine and ecstasy). Meanwhile, the neighbouring region of Southeast Asia, including China, was experiencing a significant increase in the capacity for the illegal production and trafficking of amphetamine stimulants.

As of 2017, there was a noted absence of systematic production of these drugs within the territories of five Central Asian countries (Kazakhstan, Kyrgyzstan, Uzbekistan, Tajikistan and Turkmenistan). However, even at that time, the region was identified as an important area for the routes used to transport not only opioids and cannabis but also synthetic amphetamine-type stimulants (UNODC 2017). In recent years, all Central Asian countries, except for Turkmenistan, have reported the emergence of NPS to the UNODC. Tajikistan was the first in the region to report NPS in 2013. Between 2013 and 2016, Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan together reported 58 different NPS. Among these, synthetic cathinones made up over 43%, followed by synthetic cannabinoids at 38%, and phenethylamines at 10% (UNODC 2017).

Among other countries in the region, Kazakhstan was the first to experience a massive surge in the market and consumption of NPS. Initially, experts attributed this to the country's extensive shared borders with key NPS-producing nations, namely Russia and China. However, over the past four years, there has been a sharp shift in the nature of NPS supply on the domestic markets. According to law enforcement agencies, Kazakhstan is currently undergoing an active phase of NPS production in illegal laboratories scattered across the country. Prior to 2019, reports of NPS seizures

mostly involved small so-called ‘kitchen’ labs, where amateur chemists could produce only a few grams of narcotic substances. Nowadays, these illegal labs have evolved into well-equipped factories capable of producing dozens of kilograms of drugs per day. At the same time, the resources and industrial capacities of such laboratories are most often supported, according to law enforcement agencies, by funds from transnational criminal organisations. These funds cover everything from the professional training of chemists to the purchase of laboratory equipment and the import of precursors. These criminal groups rely on the services of Kazakhstani residents to find and acquire premises for laboratories and open financial accounts. They also recruit Kazakhstani citizens to distribute drugs through a network of couriers (Lykova 2024). In 2023, according to the Ministry of Internal Affairs of Kazakhstan, 41 drug laboratories were dismantled in the country. These laboratories are most often located near major transportation hubs to ensure quick and unobstructed distribution across the country (Turlybek 2024).

The emergence of new synthetic threats in the region has introduced distinctive and unique aspects to the issue of psychoactive substances, which are unlikely to have similar counterparts in other parts of the world and are more characteristic of post-Soviet countries.

Among these features is the active spread of NPS, particularly from the stimulant group, with substances like mephedrone and α -pyrrolidinopentiophenone (alpha-PVP) being especially popular. These two substances are less frequently seized worldwide compared to others as they were classified as illegal substances by the UNODC back in the early 2010s. In Central Asian countries, these substances are extremely prevalent, most likely due to the low production costs in illegal domestic laboratories. A distinctive feature of the NPS markets is the use of social messengers with encrypted messaging systems, such as Telegram, which is actively used to create platforms for drug sales. On the contrary, the globally popular Darknet space is not as actively utilised among clients in the Central Asian region. Additionally, the region has established a unique system of retail drug trade and delivery to customers through so-called ‘dead drops’—small packages containing drugs that are left for buyers in public places such as parks, courtyards, and playgrounds (Kurcevič & Rick 2020).

An important characteristic of the region is the emphasis on tightening policies related to the circulation of NPS. Meanwhile, this undoubtedly impacts the other side of the fight against NPS—the battle against demand. Despite advancements in drug treatment and harm reduction strategies,

which have shown promise in reducing the demand for traditional narcotics, the rise of NPS demands a re-evaluation of these approaches. Over the last decade, an increase in demand for services related to treating addiction to NPS has not been observed. According to CADAP experts, this is due to changes in drug consumption patterns, the unpreparedness of treatment organisations to meet patient needs, and the low awareness among specialists of new approaches in providing services for people who use NPS (Faura et al. 2023).

Thus, it should be noted that despite the intensified efforts to combat the supply for psychoactive substances through strengthening law enforcement capabilities, active collaboration among border guards and security forces, the training of forensic experts, and the enhancement of technical resources, the development of solid, scientifically based resources for the treatment and prevention of addictions (demand reduction) is lagging behind.

Central Asia and China are now at the forefront of the global fight against these new threats, requiring not only domestic policy adjustments but also enhanced international collaboration. The fluidity of NPS markets, driven by technological advancements and global supply chains, means that no single nation can tackle this issue in isolation.

The complexities introduced by NPS necessitate a multidimensional approach that goes beyond conventional drug control measures. It involves integrating public health initiatives with robust legal frameworks and international cooperation to address both the supply and demand sides of the problem.

The fight against narcotic threats in Central Asia and China is evolving in response to both global and regional changes. The emergence of new psychoactive substances is a stark reminder that drug policy must be as dynamic and multifaceted as the challenges it seeks to address. Continued progress in treatment and harm reduction is essential, but it must be complemented by innovative policy responses and a commitment to international cooperation. Only through such a comprehensive approach can these regions hope to mitigate the growing threat posed by these dangerous substances and protect their populations from the ensuing harms.

Book Overview

This book offers a comprehensive examination of the emerging challenges posed by NPS in Central Asia and China, exploring the diverse ways in which different countries and communities are responding to this growing threat. With the rise of synthetic drugs across the region, the book delves into the unique challenges faced by nations like Kazakhstan, Kyrgyzstan, Uzbekistan, and Tajikistan. Each chapter provides an in-depth analysis of the local contexts, including the public health risks, law enforcement strategies, and policy responses tailored to address the specific needs and vulnerabilities of each country. From the legal frameworks and enforcement mechanisms in Kazakhstan to the public health strategies in Kyrgyzstan, the book paints a detailed picture of the regional landscape of NPS use and the multifaceted approaches being employed to mitigate its impact.

In addition to country-specific analyses, the book also explores cross-cutting themes that transcend national borders, highlighting the broader societal implications of NPS. It sheds light on the intersection of NPS with various social groups, including the youth and LGBTQ+ communities, particularly within the context of issues such as chemsex in Central Asia. The focus on vulnerable populations extends to discussions on NPS use in prisons and the particular challenges faced by women and young people in Kazakhstan. These chapters underscore the complex social dynamics at play and the importance of understanding the diverse ways in which NPS affect different segments of the population.

The book also addresses innovative approaches to prevention, treatment, and harm reduction, emphasising the need for new strategies in response to the evolving nature of NPS. From primary prevention efforts among the youth in Kazakhstan to web-based outreach initiatives in St. Petersburg, the text highlights the importance of adaptive and forward-thinking solutions. Additionally, it critically examines the societal impact of compulsory drug treatment and legal penalties, providing a nuanced perspective on the effectiveness of current drug policies. By integrating these varied perspectives, the book offers a holistic understanding of the NPS phenomenon in Central Asia and China, making it an essential resource for policymakers, researchers, and practitioners working to navigate this complex and rapidly changing landscape.

This book is the result of the efforts of a panel of experts on a relatively new topic for this region. It is important to recognise the unique contribu-

tions of each author, not only in conveying factual information but also in their role in seeking solutions to the challenges facing the region.

The book can be divided into three sections: Country Overviews, Harms and Social Risks of NPS Use in Vulnerable Populations, and Demand Reduction. The country overviews include chapters on Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan, and China.

The chapter 'New Psychoactive Substances in Kazakhstan: Challenges, Enforcement, and Policy Approaches', authored by Mariya Prilutskaya, Almas Kussainov, and Gulzhan Altybayeva, provides an in-depth exploration of Kazakhstan's multifaceted response to the escalating challenge of NPS. The uniqueness of the chapter lies in its comprehensive analysis of the legal, enforcement, and collaborative measures the country has implemented to combat the rise of NPS. It underscores the innovative legal frameworks, such as the expedited prohibition process for new drug formulas, which have significantly enhanced the country's ability to regulate and control NPS. Additionally, the chapter highlights Kazakhstan's focus on treatment, prevention, and harm reduction, illustrating a holistic approach to addressing the issue. The importance of international cooperation and the integration of best practices into Kazakhstan's strategies are also emphasised, showcasing the country's proactive stance in mitigating the risks associated with NPS. This overview not only reflects Kazakhstan's commitment to combating NPS but also offers insights into the evolving challenges and the need for continuous adaptation of strategies.

The chapter titled 'New Psychoactive Substances in Kyrgyzstan: Public Health Risks and Policy Responses', authored by Elena Molchanova, Sergei Bessonov, Zhyldyz Bakirova, Tatiana Galako, and Danil Nikitin, presents a comprehensive analysis of Kyrgyzstan's efforts to address the challenges posed by NPS. It uniquely highlights the nation's adaptability and collaborative approach in managing the complex public health risks associated with NPS, including the economic and societal impacts. The chapter underscores Kyrgyzstan's active role in global anti-drug initiatives, emphasising international cooperation in legislative development. Additionally, it provides recommendations for strengthening law enforcement, improving data collection, and expanding harm reduction services tailored to NPS users. This holistic approach reflects the evolving strategies necessary to mitigate the risks and harms associated with NPS in Kyrgyzstan.

The chapter titled 'Review of New Psychoactive Substances Use: Trends, Challenges, and Strategies in the Context of Uzbekistan', authored by Guzalkhon Zakhidova, Jakhongir Ravshanov, and Gulnoza Abdulkakhar-

ova, provides an in-depth analysis of the evolving landscape of NPS in Uzbekistan. It highlights the rapid increase in drug trafficking offences and the emergence of clandestine laboratories manufacturing these substances. The chapter uniquely focuses on the challenges posed by NPS, including the sociocultural barriers, legal stigmatisation, and technical difficulties in addressing the issue. The authors emphasise the need for a comprehensive approach involving improved legislation, healthcare development, and social support to tackle the rising NPS problem. Furthermore, the chapter underscores the importance of international cooperation and the proactive role of Uzbekistan's government in combating this growing threat.

The chapter titled 'New Psychoactive Substances in the Republic of Tajikistan: The Latest Developments, Challenges, and Solutions', authored by Naimdzhon Malikov and Vladimir Magkoev, delves into the evolving landscape of drug use in Tajikistan, with a specific focus on the rising prevalence of NPS. It uniquely highlights the impact of Tajikistan's geographic and socio-political context—particularly its proximity to Afghanistan—on the drug trade and domestic drug use patterns. The chapter details the shift from traditional opiates to synthetic drugs, reflecting changing drug markets and the consequent public health challenges. It emphasises the lack of preparedness in the healthcare system and civil society to address the NPS crisis, calling for the development of new treatment protocols and harm reduction strategies. Additionally, the chapter underscores the importance of international cooperation and the need for targeted research to fully understand and combat the growing NPS problem in Tajikistan.

The chapter titled 'Unpacking NPS in China', authored by Haifeng Jiang, provides a comprehensive examination of the rise of NPS in China. It uniquely focuses on the country's dual role as both a supplier and recipient of these substances, highlighting China's complex challenges in controlling NPS. The chapter outlines the evolution of NPS in China from ketamine and methcathinone to a diverse array of synthetic drugs, reflecting the dynamic and rapidly changing drug landscape. It also emphasises the sophisticated nature of NPS-related crimes, involving highly educated offenders and advanced smuggling techniques. The discussion includes China's rigorous legal framework and its ongoing efforts to regulate and monitor NPS, despite the persistent challenges of fast-evolving substances and gaps in detection methods. This chapter sheds light on China's strategic responses, underlining the need for continuous adaptation and international cooperation to effectively combat NPS.

The chapter titled 'Primary Prevention of Synthetic Drug Addiction Among the Youth of Kazakhstan: The Public's View', authored by Zhandos Aktayev, offers a critical analysis of the rising synthetic drug problem in Kazakhstan, particularly among the country's youth. The chapter uniquely highlights the systemic challenges faced by government and public organisations in implementing effective drug prevention strategies, pointing out the inadequate legal frameworks, underfunded programmes, and fragmented institutional efforts as key obstacles. Aktayev underscores the role of digital ecosystems in facilitating the rapid spread of synthetic drugs, which are increasingly accessible through online platforms. The chapter also emphasises the importance of targeted, evidence-based interventions that are culturally and socially relevant to youth, proposing a shift from traditional methods to more innovative and integrated approaches. This chapter serves as a call for comprehensive, multi-stakeholder collaboration to address the complex and evolving issue of synthetic drug addiction among Kazakhstan's youth.

The chapter titled 'Synthetic Drug Issues in Kazakhstan: Emphasising Youth and Women's Involvement', authored by Mariya Prilutskaya and Valentina Mankieva, provides a critical analysis of the increasing involvement of youth and women in synthetic drug-related activities in Kazakhstan. The uniqueness of this chapter lies in its focus on the socio-economic and gender-specific factors driving this trend, highlighting how these demographics are disproportionately affected by the rise of synthetic drugs. It discusses the alarming rise in drug trafficking among young people and women, fuelled by economic pressures and the accessibility of these substances. The chapter also emphasises the lack of gender-specific prevention and treatment programmes, underscoring the need for more targeted interventions. Through comprehensive data analysis, the authors illustrate the growing health and social challenges posed by synthetic drugs, calling for urgent policy reforms and enhanced support systems to address this escalating issue.

The chapter titled 'New Psychoactive Drugs in European Prisons', authored by Heino Stöver and Ulla-Britt Klankwarth, provides an in-depth analysis of the growing presence of new psychoactive substances (NPS) within European prison systems. The uniqueness of this chapter lies in its examination of how NPS has become a critical issue, posing significant health risks and challenges to prison management. It discusses the prevalence of NPS, driven by their undetectability and availability, and highlights the pressing need for better prevention, treatment strategies, and

cross-border cooperation to address this escalating problem. The chapter emphasizes the inadequacy of current prison interventions, advocating for the development of more comprehensive approaches to mitigate the health and safety risks associated with NPS use in these settings.

The chapter titled 'Exploring the Intersection: New Psychoactive Substances, LGBTQ+ Communities, and Chemsex in Central Asia', authored by Vitaliy Vinogradov and Nikolay Lunchenkov, provides a pioneering examination of the emerging phenomenon of chemsex within the LGBTQ+ communities in Central Asia. The uniqueness of this chapter lies in its focus on the intersection of cultural stigma, traditional norms, and the rising use of NPS among gay, bisexual, and other men who have sex with men (GBMSM). It highlights the challenges faced by these communities due to societal pressures, religious beliefs, and patriarchal norms, which drive such practices underground, increasing health risks. The chapter also discusses the limited access to harm reduction programmes and the importance of tailored interventions in the region. This exploration is crucial for understanding the complex dynamics at play and for developing effective strategies to support the health and well-being of GBMSM in Central Asia.

The chapter titled 'New Psychoactive Substances: Understanding the Health Risks and Clinical Impacts', authored by Ainur Shukimbayeva, Aigerim Zhumasheva, and Mariya Prilutskaya, provides a comprehensive examination of the significant health risks associated with the use of NPS. Uniquely, this chapter underscores the unpredictable and potent nature of NPS, which often leads to severe and sometimes life-threatening health consequences. The authors delve into the multifaceted clinical impacts, ranging from respiratory failure to severe psychiatric disorders, highlighting the challenges in managing these effects due to the constant evolution of NPS variants. The chapter also emphasises the increased vulnerability of children and adolescents, who are particularly at risk of severe symptoms like psychosis, cardiovascular issues, and gastrointestinal problems. This work serves as a crucial resource for healthcare providers, offering insights into the complex health implications of NPS and advocating for enhanced awareness and targeted interventions to mitigate these risks.

The chapter titled 'Web Outreach and NPS: A New Aspect of Online Harm Reduction', authored by Alexei Lakhov and Nikolai Unguryan, provides an innovative exploration of the intersection between digital platforms and harm reduction efforts for people who use drugs (PWUD). The uniqueness of this chapter lies in its detailed examination of how

web outreach has evolved as a critical tool in addressing the challenges posed by NPS in Eastern Europe and Central Asia. It underscores the shifting drug trade landscape, with transactions moving from the streets to encrypted online spaces like the Darknet and social media platforms. The chapter highlights successful strategies employed by organisations such as the St. Petersburg Charitable Fund ‘Humanitarian Action’, illustrating the potential of web-based harm reduction in reaching otherwise inaccessible populations. Furthermore, it stresses the importance of adaptable and secure online interventions, which have become even more critical in the wake of the Covid-19 pandemic. This chapter is a pioneering look at how digital transformation can expand and enhance traditional harm reduction services.

The chapter titled ‘Navigating New Drug Challenges: The Societal Impact of Compulsory Drug Treatment and Legal Penalties’, authored by Zhanara Nurseitova, offers a profound exploration of the complexities surrounding compulsory treatment for individuals who use NPS. Uniquely, this chapter addresses the ethical and social dilemmas posed by compulsory treatment, contrasting it with traditional punitive measures and examining its effects on both individuals and society. The discussion highlights the tension between protecting public safety and respecting individual rights, emphasising the need for a balanced approach that combines legal consequences with humane rehabilitative strategies. Nurseitova also explores the broader societal impacts of drug addiction, including increased crime rates and healthcare burdens, and advocates for a comprehensive, standardised treatment model that prioritises rehabilitation over incarceration. This chapter serves as a critical analysis of current drug policies and proposes a more compassionate and effective framework for addressing the challenges posed by NPS in society.

All in all, the book offers a multifaceted examination of the evolving challenges posed by NPS across different regions and contexts, emphasising the need for innovative, compassionate, and integrated approaches to drug policy, treatment, and prevention. From Kazakhstan’s focus on holistic strategies for youth and women’s involvement to China’s dual role in the global NPS market and the ethical complexities of compulsory treatment, these chapters underscore the critical importance of balancing public safety with the protection of individual rights. The insights presented highlight the dynamic interplay between legal frameworks, healthcare systems, and societal attitudes, advocating for a shift towards more humane, evidence-based interventions. Collectively, they call for enhanced international co-

operation, targeted research, and the development of comprehensive, culturally relevant policies to effectively address the global NPS crisis and its profound impact on public health and social stability.

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I. Country Overviews

2. New Psychoactive Substances in Kazakhstan: Challenges, Enforcement, and Policy Approaches

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In recent years, Kazakhstan has faced a significant challenge with the rise of new psychoactive substances (NPS). These substances, often designed to mimic the effects of traditional illicit drugs, have created a complex landscape for legal regulation and law enforcement. This chapter delves into the multifaceted approach Kazakhstan has adopted to combat the proliferation of NPS. It explores the stringent legal frameworks implemented, the proactive measures taken by law enforcement agencies, and the collaborative efforts between various stakeholders to mitigate the risks associated with these substances. For the general public, NPS are more commonly known by the collective term ‘synthetic drugs’, highlighting their novelty and distinguishing them from the more traditional drugs, heroin and cannabis. President Kassym-Jomart Tokayev reported in September 2022 that the number of synthetic drug seizures in Kazakhstan has increased tenfold over the past three years.

Central to Kazakhstan’s strategy against NPS is a comprehensive policy framework that addresses treatment, prevention, and harm reduction. The country’s health policies focus on providing accessible treatment options for individuals struggling with NPS addiction, while also prioritising preventive measures to curb the initial use of these substances. Harm reduction strategies, such as needle exchange programmes and supervised consumption facilities, are integral components of Kazakhstan’s approach, aimed at minimising the adverse health consequences associated with NPS use.

Furthermore, the chapter highlights the importance of international collaboration in addressing the NPS crisis. Kazakhstan’s engagement with global partners has facilitated the sharing of best practices and resources, enhancing the country’s capacity to tackle this issue effectively. The chapter also examines the epidemiology of NPS use, providing insights into the patterns and trends observed within the population. Additionally, it underscores the critical role of specialist awareness and education, as well as the contributions of non-governmental organisations (NGOs) in supporting individuals affected by NPS and advocating for evidence-based policies.

Legal Regulation and Law Enforcement Activities

The drug market has remained relatively stable for many decades, which has allowed the global community to identify and implement a number of effective interventions against drugs such as heroin, amphetamines, cocaine, and cannabis. However, the mid-2000s were marked by the emergence of new drug challenges, associated with both a dramatic increase in the number of new drug formulas and changes in their marketing channels. The emergence of NPS has become a worldwide trend, with 141 countries and territories across the globe reporting one or more of these substances. As of November 2023, the Early Warning Advisory of the United Nations Office on Drugs and Crime (UNODC) has received reports on 1,230 different substances (UNODC 2024). The first mentions of new psychoactive substances in Central Asia were also recorded in the mid-2000s, although the region did not report seizures of synthetic drugs in official UNODC statistics until the early 2010s. The earliest reports began to register in the media, in the form of short news articles about previously unknown smoking mixtures that ‘alter mental states’ (Mednovosti 2010).

The issue of the dangers of new psychoactive substances has only been on the political agenda since the mid-2010s. In 2010, the Ministry of Health imposed a ban on the free trade of smoking mixtures such as ‘Genie’, ‘Smoke, relax your mind’, ‘Rush’, ‘Damiana chocolate’, ‘Effya’, and ‘Spice’ (Kosenov 2010). However, this measure did not work effectively because the decision of the Ministry of Health was advisory in nature (Vesti.kz 2011). At that time, amendments to the Law ‘On Narcotic Drugs’ were required. From 2014–2015 onwards, Kazakhstan’s parliament focused on the need to determine the legal state of NPS, considering a raising concerns initiated by media agenda. In the legal field of Kazakhstan, new psychoactive substances were presented under the term ‘analogues of narcotic and psychotropic drugs’. According to Law ‘On Narcotic Drugs’ from 2014, analogues are chemical substances not included in the ‘List of narcotic drugs, psychotropic substances, and precursors subject to control in the Republic of Kazakhstan’, whose (i) chemical structure, (ii) effect on the body, and (iii) harm to public health is comparable to the psychoactive substances they reproduce. However, in December 2019, the definition of analogy was changed, and it is now sufficient to establish only the chemical component of the substance, rather than the three aspects previously required to determine analogy (Law of the Republic of Kazakhstan, Updated, 2023).

This development has greatly simplified the process of controlling new formulas and listing them as hazardous. In addition, since December 2018, Kazakhstan has introduced a new mechanism for the accelerated prohibition of new drug formulas. Thus, before 2018, recognising a substance as narcotic required a law change at parliament level, which, due to administrative bureaucracy, took at least two years. Upon introduction of the new legal regulation, the government is now the body responsible for the drug control list and regulation of scheduled substances. That legal measure led almost immediately to a sharp increase in the number of criminal cases where trafficking in analogues was established and were brought to trial. The criminal justice and anti-drug trafficking system has been provided with a mechanism to respond more flexibly to the surge in new chemical formulas. This was noted in reports of both ordinary police officers and government officials (Weber 2020). Another important measure in the legal regulation of trafficking was the differentiated definition of the weight ranges of seized drugs (medium, large, and especially large), which is crucial to determine the severity of the offence. This measure was salient, given the high potency of NPS, which can significantly exceed the potency of classic drugs. Therefore, analogues/NPS cannot automatically be equated with the weight of classic drugs. For example, since 2021, the criminal liability for the sale of alpha-PVP starts at just one gram of the substance, whereas it previously started at 50 grams (Forbes Kazakhstan, 2021). As of April 2024, 18 synthetic stimulants and 112 synthetic cannabinoids have been classified as illegal psychotropic substances (Government of the Republic of Kazakhstan 2019). Their trafficking is strictly prohibited in the country. The ‘List of narcotic drugs, psychotropic substances, and precursors subject to control in the Republic of Kazakhstan’ also includes two of the most prevalent NPS, according to police information—mephedrone and alpha-PVP. In January 2024, law enforcement agencies dismantled an illegal laboratory with 200 kg of finished mephedrone worth 3.2 billion tenge (over USD seven million) (Zharbulova 2024).

Despite a number of ongoing government measures, the problem of the proliferation of synthetic drugs remains unresolved. The president’s statement in 2022 on the growing threat of synthetic drugs to Kazakhstan’s security has become an important message for anti-drug policy. The president noted that ‘the dynamics are sharply negative: over the past three years, the volume of “synthetics” seizures has increased ten times. Synthetic drugs are becoming cheaper and more accessible every year’ (Tokayev 2022). In

his annual message to the people of Kazakhstan, the president emphasised the need to develop a strategic plan to combat synthetic drugs.

In June 2023, the government approved the ‘Comprehensive Plan to Combat Drug Addiction and Drug Trafficking in the Republic of Kazakhstan for 2023–2025’. The descriptive part of this document indicated that in 2022, 15.9 tons of various psychoactive substances had been seized, of which ‘synthetics’ comprised 582.9 kg (3.6%). In 2021, 16.1 tons of drugs were seized from illicit trafficking, including 223 kg of ‘synthetics’. The main activities outlined in the plan include equipping border checkpoints with drug detection equipment, strengthening the material and technical base of forensic examination bodies, introducing screening to detect drug addiction at early stages, upgrading and opening treatment and rehabilitation centres, and eliminating clandestine drug laboratories. Overall, 53.1 billion tenge (over USD 118 million) were allocated for the implementation of the Comprehensive Plan. According to the Plan, the prevailing share of financial resources was allocated specifically to improving the technical equipment of law enforcement agencies. The programme notes that a significant challenge is the technical complexity of the drug business. The current growing NPS trend in Kazakhstan is associated with local production in clandestine drug laboratories using precursors and equipment of Russian and Chinese origin. At the same time, the smuggling of various concentrates, precursors, and ready-to-use substances continues, mainly from Russian territory through postal mail and transport and logistics companies (Decree of the Government of the Republic of Kazakhstan 2023). In 2021, 36 drug laboratories were dismantled and over 70 kg of ready-to-use drugs and more than 4.5 tons of their precursors were seized. During constant online monitoring, 1,628 sites involved in drug trafficking were identified and blocked by the Ministry of Internal Affairs in collaboration with the Ministry of Digital Development, Innovations and Aerospace Industry (National Information-Analytical Center on Drug Control under the Cabinet of Ministers Republic of Uzbekistan 2022).

Given that NPS is distributed by non-contact means, there has been an upsurge in various marketing platforms for stimulants and ‘spices’. Marketing and trade on such platforms are becoming increasingly diverse, requiring the involvement of various intermediaries and workers who maintain contact with customers, advertise products, and attract new clients. Annual official law enforcement reports show a continuous increase in the number of drug shops on Telegram. Most often, a courier—or *zakladchik*—hides drugs in various inconspicuous places around a city, photographs the loca-

tion, and records its geographical coordinates to be passed on to the buyer. These couriers come to the attention of the police more often than other people working at drug shops, which is why they can't be trusted with a large volume of drugs. The processor of large doses—known as a *skladmen*—is a person who keeps a large batch of drugs at home or elsewhere and leaves a small number of doses (100–200) once a week for a courier. This person is much more difficult to identify, as no one but the courier and the shop staff knows where he or she leaves drugs. Then there is the operator, a person who does not have any contact with the drugs but simply takes orders from customers on Telegram, takes payment from them, and gives them the photos and coordinates of the dropped drugs in return. The operator and all further staff members can be located anywhere, even abroad. Since drug shops usually have chat rooms where they gather people and advertise their services, they need chat room administrators. These people keep order and organise various roulette games in the chat rooms, giving a random participant a dose in exchange for a good report. Administrators can also search for new couriers and taggers. Taggers are those who graffiti the walls of buildings. This graffiti shows the operator's username in Telegram or the address of the website. Large shops have staff members responsible for HR and marketing, as well as an accountant. At the top, there is always the person who owns the shop, keeping everyone else under control. There are also so-called 'droppers'. The essence of their work is to provide their personal data to be used instead of that of criminals. This can include bank accounts and documents needed to launder money. Some people become droppers voluntarily and others by accident (Solntseva 2023). Very often droppers are recruited from socially disadvantaged populations (including people with substance use disorders). Couriers who distribute drugs on the streets are regularly victimised by criminals. If the goods are lost, they may be beaten or maimed as punishment. In some cases, the organisers of drug shops may divulge the identity of the couriers, exposing them to police sanctions or the retaliation of deceived clients. For the convenience of customers, stores offer the option of arbitration or purchase insurance against fraud, whereby the seller receives the money only after the buyer sends confirmation of the purchase. Only in this case can the transaction be considered complete. This type of drug distribution is so typical for NPS that other ways of obtaining a dose (such as directly from dealers) are hardly used. In some cases, an additional method of distributing drugs and attracting new clients can occur in a sexualised context. This involves attracting newcomers who try and buy drugs at private

parties in hotels or rented apartments. It should be noted that this method also supplies drugs to women who provide sexual services in exchange for a dose. Those who have experience using traditional drugs (often heroin) prefer to find intermediaries who search for the drugs online for them, enabling them to then pick up the packages left in parks or deserted areas. They use this method of acquiring drugs through intermediaries because they rarely have access to the online space and also fear being detained by the police on city streets.

Unfortunately, there are currently no in-depth and systematic studies on drug markets, the specifics of their sales, and the determinants of this business in Kazakhstan. However, it is worth noting that in the few studies conducted within the Commonwealth of Independent States (CIS), in which the Kazakhstani market was analysed as part of a broader study to understand the larger market, its stable activity is highlighted, despite various processes due to geopolitical situations and pandemics (Grohmannová, Prilutskaya, Mravčík 2019; DrugStat 2020). From 2013 to 2016, Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan reported a total of 58 NPS to the UNODC. Among these, over 43% were synthetic cathinones, followed by synthetic cannabinoids at 38% and phenethylamines at 10%. In the Central Asian region, only one NPS was reported in 2013 from Tajikistan and another in 2014 from Kazakhstan. However, the number of NPS reported in Central Asia increased to 31 in 2015 and 48 in 2016. This rise was mainly due to the growing number of NPS reported in Kazakhstan, which increased from one in 2014 to 21 in 2015 and 38 in 2016 (UNODC 2017). A study conducted by Grohmannová et al. (2019) in 2019, which followed the methodology of the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), revealed over 160 online shops actively offering synthetic drugs across the entire Central Asian region. Among these, the most extensive market capacities were found in Kazakhstan. A total of 1,080 specific products were available from online shops. The most commonly offered synthetic drugs were from the chemical groups of synthetic cathinones and synthetic cannabinoids. Specifically, there were 254 synthetic cannabinoids available across 27 online shops and 175 synthetic cathinones available across 58 online shops. Among synthetic cathinones, mephedrone was the most frequently offered substance, available in 37 different online shops specialising in synthetic drugs (31% of all offered substances). Other widely available synthetic cathinones included alpha-PVP, found in 24 online shops (20%), and dibutylone (bk-MMBDB), found in 14 online shops (12%) (DrugStat 2020).

The Covid-19 pandemic and anti-epidemic measures only imposed some limitations on the traffic and availability of drugs. To a greater extent, the pandemic contributed to an increased demand for synthetic drugs and also facilitated the onset of local production of synthetic drugs. Initially, the production took place in very small laboratories, the so-called 'kitchen labs', but gradually, large-scale production of NPS began to emerge in the country. According to the DrugStat study (2020), in Kazakhstan, the most frequently demanded substances on the darknet platform Hydra were mephedrone, alpha-PVP, and cannabis. In April 2020, the Covid-19 lockdown sharply reduced orders for alpha-PVP but had almost no impact on the supply and availability of mephedrone. This led the DrugStat experts to admit that local production of this cathinone had already emerged near the largest metropolis in the country, Almaty city. In the initial period after the state of emergency was declared, sales surged as people no longer needed to go to work or school. However, sales soon reverted to normal weekly levels. Once restrictions on movement were enforced, sales dropped sharply, reaching their lowest point in the first week of these restrictions. Following this, sales began to gradually increase again each day. The growth rate picked up after quarantine measures were lifted, with sales returning to pre-crisis levels within a few weeks. Sales of alpha-PVP significantly decreased during the pandemic, whilst its retail price increased. This indirectly indicated a reduction in the import of this NPS from abroad. However, following the end of the pandemic, alpha-PVP now holds the leading position in terms of the number of seizures in the country. This also indicates the beginning of its production in large quantities in Kazakhstan.

Based on reports and press releases from the Ministry of Internal Affairs of the Republic of Kazakhstan, it is clear that the drug trade in Kazakhstan involves large transnational criminal organisations. According to the Global Initiative against Transnational Organized Crime, the individuals engage in illegal drug manufacturing are usually young people who had travelled to Russia and certain EU countries, like the Netherlands and Germany, to learn the craft from experienced 'chemists'. Eventually, Kazakh drug trafficking organisations acquired the necessary tools for domestic production by ordering precursor chemicals from China and Russia through the dark web and importing equipment by mail (Vorobyeva 2023).

The implementation of policies to combat drug-related crimes and prevent illegal drug trafficking in Kazakhstan is managed by two organisations: the Ministry of Internal Affairs (Department for Combating Drug Crime) and the National Security Committee. Alongside their other re-

sponsibilities, these government agencies provide statistical information related to efforts to combat the supply of drugs.

In 2023, the police dismantled 41 drug laboratories and suppressed the activities of twelve organised crime groups, including four transnational criminal organisations. In 2023, anti-drug crime units recorded 81 cases of drug advertising and 448 cases of drug sales via the internet. A total of 572 suspects were detained for selling drugs online and via social networks. This group included eight administrators and creators of chatbots, 160 operators, packers, and stashers, 356 couriers and distributors, and 16 individuals responsible for graffitiing drug website addresses on buildings. Additionally, 6,062 websites and other online resources containing information about the distribution of narcotics and psychotropic substances were blocked (Turlybek 2024). According to data from the National Security Committee of Kazakhstan, in 2023, seizures of alpha-PVP from illegal laboratories, intended for sale in CIS countries, reached weights ranging from 100 to 200 kg. The area of such laboratories can reach significant sizes. For instance, at the end of July 2023, a drug laboratory covering 0.5 hectares was dismantled (National Security Committee 2023). A significant increase in the seizure of precursors also indicates active local drug production. In 2022, 1,419 kg of precursors were seized, and in the first nine months of 2023, 4,609 kg of precursors were seized. In December 2022, the street price for alpha-PVP was USD 32 per gram and for mephedrone, it was USD 53 per gram. In comparison, the street price for one gram of heroin ranged between USD 11 and USD 43, while cocaine was USD 400. This also demonstrates the availability of synthetic drugs, considering the higher narcogenic potential of one gram of synthetic cathinones compared to one gram of traditional drugs (UNODC 2023).

The growth of drug laboratories is also significantly influenced by political changes in neighbouring countries. According to the analytical report of the Global Initiative against Transnational Organized Crime, Russia serves as a significant supplier of precursor chemicals for drug manufacturers in Kazakhstan. This trend has intensified since February 2022, following the relocation of some Russian drug trafficking organisations' production activities to Kazakhstan (Vorobyeva 2023). According to the Ministry of Internal Affairs of Kazakhstan, Ukrainian citizens who relocated to Kazakhstan after February 2022 have also been detained in connection with the production of NPS in local drug laboratories (tengrinews.kz 2022). The report by the Global Initiative against Transnational Organized Crime mentions a large transnational criminal group—'Khimprom: a transnation-

al synthetics syndicate’—that has been producing synthetic drugs for the markets of Russia, Ukraine, and Belarus since 2014, changing its operations base between Russia and Ukraine. Since the beginning of 2022, this organisation has started expanding its criminal activities to Central Asia, particularly Kazakhstan (Vorobyeva 2023). Furthermore, it should not be forgotten that while the chemists who perform the synthesis and development of formulas are usually citizens of other countries, Kazakh residents ensure the establishment of financial mechanisms for obtaining funds through local banks and strengthen the local infrastructure for drug trafficking and sales.

Amidst the persistent flow of drug production and increasing reports of an active drug market in the country, the agenda for tightening sanctions and penalties for illegal drug trafficking is being strengthened. President K.K. Tokayev made a statement:

‘We must intensify the fight against drugs because tomorrow may be too late. Currently, we have quite severe penalties for drug trafficking. I propose to maximally increase the responsibility for the production of narcotic substances, equating it to the most serious crimes.’ (zakon.kz 2024)

A significant challenge for the country’s legal system is the fate of prisoners convicted of distributing synthetic drugs. The sentences for the sale of NPS are quite long and exceed those for traditional drugs. The reason for this lies in the aggravating circumstances of the offences. In 2020, on the instructions of the Head of State, inducement to use and sale of drugs via the internet were classified as ‘grave’ and ‘especially grave’ offences, respectively. The new offences of drug advertising and propaganda were also introduced. According to the Criminal Code, the distribution of drugs via the internet and social media entails additional years of restriction of liberty. The average length of imprisonment for crimes involving synthetic drugs ranges from five to 15 years (Criminal Code of the Republic of Kazakhstan 2014). The most frequent drug couriers who end up in the dock are women and young people. The penalty for selling drugs to minors ranges from 20 years to life imprisonment. According to the Ministry of Internal Affairs, as of 2023, more than 1,200 convicts are serving sentences for offences related to synthetic drug trafficking. Of these, more than 700 people are first-time offenders (Nurullin 2023). It is clearly necessary to change the approach to providing social support to these prisoners and resocialising them after serving such long sentences. The situation is aggravated by the extreme

stigmatisation of such crimes, as well as the stigmatisation of the problem of synthetic drug use. To the best of our knowledge, there is currently no resocialisation programme for prisoners convicted of drug trafficking.

Thus, the above information indicates a surge in the supply of synthetic drugs (NPS) in Kazakhstan, which has been recorded over the last three to five years. Law enforcement agencies are actively promoting new policies to strengthen capacities for identifying drug production sites, advertising, and distribution channels. There is a consistently progressive course towards tightening sanctions for crimes related to the distribution of synthetic drugs. Alongside this, there remains a societal agenda emphasising the need to address the demand for these types of psychoactive substances. The next section will be dedicated to discussing policies on treatment, prevention, and harm reduction regarding NPS at a systemic level.

NPS-Related Policies: Demand in Focus

Questions concerning the reduction of demand for synthetic drugs fall under the responsibility of the Ministry of Health (provision of treatment and rehabilitation for people with substance use disorders). The responsibility for prevention is assigned to the Ministry of Internal Affairs and the Ministry of Education.

Prevention programmes for NPS are fundamentally no different from those for traditional drug abuse prevention. In Kazakhstan, there is no unified national concept for prevention; there is no division into universal, selective, and indicated prevention as stipulated by international standards (UNODC and the World Health Organization 2018). Prevention issues are addressed in various documents and primarily concern youth and minors. However, the prevention of synthetic drug spread is more comprehensively outlined in the 'Comprehensive Plan for Combating Drug Addiction and Drug Trafficking in the Republic of Kazakhstan for 2023–2025' (Decree of the Government of the Republic of Kazakhstan 2023). However, most of the activities listed in this plan are not based on internationally recognised interventions and lack an evidence-based foundation, making them unsystematic. Among the universal prevention measures, the focus is on promoting a healthy lifestyle, informational campaigns, and lectures in schools and universities. There are no state-level interventions in schools, families, workplaces, or communities. Those that are conducted locally with the support of NGOs are often fragmented and short-term.

Among the other components of the approach to reducing the demand for NPS, treatment services are the most developed and resourceful. Treatment programmes for people with NPS addiction are available in all cities across the country, both free of charge and for a fee. It is worth noting that the therapy standards and approaches to medical and social rehabilitation are fundamentally no different from those developed for patients with traditional drug addictions. Since 2017, clinical protocols for the diagnosis and treatment of NPS addictions have been developed; however, they currently require updating and revision. There remains a need to develop treatment protocols for minors. Additionally, the country lacks state treatment facilities for adolescents abusing NPS. In 2016, a pilot study assessed NPS use among individuals receiving inpatient drug treatment in Kazakhstan. The study found that only 3.2% of patients nationwide were treated primarily for NPS addiction. However, significant regional variations were observed, with Almaty and Petropavlovsk reporting over 10% of the total number of patients in treatment for NPS dependence. Among those dependent on NPS across the country, 70% had injected cathinones at some point. In Petropavlovsk, the combination of injecting cathinones and other risk behaviours, along with increased HIV testing, correlated with a rise in HIV infections among problem drug users in 2017–2018. A key reason for NPS use was the lack of availability of traditional drugs.

The national trend assessment showed a significant increase in the number of hospitalisations due to NPS-related issues. In 2020, over 23% of patients seeking inpatient care exhibited signs of addiction to synthetic cannabinoids or synthetic cathinones (Prilutskaya et al. 2024). The same analysis revealed an increase in the proportion of people testing positive for hepatitis C and HIV. Positive seroprevalence for hepatitis C was 17.7% among patients with NPS addiction in 2018, and this figure rose to 21.4% in 2020. The proportion of HIV-infected individuals was consistently higher than the HIV rate among people who use injectable drugs. In 2020, the percentage of HIV-infected individuals was 9.7%. Among people who use injectable drugs, this figure was 8.3% in 2020 (Petrenko 2023). However, despite the increasing trend, the country lacks a sentinel surveillance mechanism for HIV infection among NPS users. People with problematic use of synthetic drugs are classified as key groups only if they use these drugs intravenously. According to data from clinics providing inpatient addiction treatment, no more than a third of NPS users administer these substances intravenously. The majority of HIV transmission occurs through sexual contacts (Prilutskaya et al. 2024). Despite the availability of inpatient treat-

ment services, the country lacks a system for evaluating their long-term effectiveness. There are no cohort assessments of remission quality among people with NPS addiction. Recovery and relapse prevention services are significantly fragmented and run by private counsellors or ‘twelve-step’ self-support groups.

Harm reduction, as a separate component of the approach to reducing drug demand, is increasingly gaining traction in Kazakhstan, thanks to international donors and the development of the non-governmental sector. At the level of state policies, harm reduction is established as measures to curb the HIV epidemic. HIV service organisations are the primary providers of these services. However, as mentioned earlier, policy improvements in this area have not yet been made in the context of the rapid spread of synthetic drugs and the increased sexual transmission of HIV. Non-governmental organisations working with NPS users have repeatedly expressed the need for education and capacity building in this area. They also note a pressing need to change the contents of harm reduction packages to include paraphernalia for non-injection use of NPS. Harm reduction should be expanded to prevent not only HIV but also complications such as hepatitis C, sexually transmitted infections, and psychotic disorders (Kurcevič & Lines 2020). One achievement in harm reduction for NPS is the provision of services in the online space—so-called web outreach—which has been available since 2019. Regular training sessions are conducted for activists on web outreach. Currently, six channels for online counselling are operational in four regions of Kazakhstan (Mankieva 2022).

Meanwhile, another equally important component of the approach to reducing the demand for drugs is the epidemiological assessment of the number of people who have used NPS over their lifetime, in the past year, and in the past 30 days. In this regard, systematic work in Kazakhstan has not been established (CADAP 2023). There are no standards for conducting surveys among the general population. To date, attempts to conduct epidemiological assessments have been sporadic and carried out with the support of international donors: the Central Asia Drug Action Programme (CADAP) and the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund). The closest approximation to surveys among the general population are two surveys conducted among young people aged 18–34 on the streets of cities in Kazakhstan in 2019 (Prilutskaya et al. 2020) and in 2021 (Republican Scientific and Practical Centre of Mental Health 2022). The only study conducted among minors in Kazakhstan regarding awareness of psychoactive substances is the ‘Youth Survey on Drug Use and

Health in Kazakhstan 2019' (Me et al. 2021). A critical aspect of NPS data processing is the early warning system, which should involve not only law enforcement agencies but also other interested departments, including the scientific community engaged in data analysis (CADAP 2023).

Conclusion

Kazakhstan has made significant strides in addressing the challenge posed by NPS. The country's comprehensive approach, combining stringent legal frameworks, proactive law enforcement measures, and collaborative efforts among various stakeholders, has shown promising results. The increase in synthetic drug seizures, the dismantling of illegal laboratories, and the tightening of regulations demonstrate Kazakhstan's commitment to combating this issue.

The adoption of a comprehensive policy framework that includes treatment, prevention, and harm reduction has been central to Kazakhstan's strategy. The focus on providing accessible treatment options and implementing harm reduction measures such as needle exchange programmes highlights the country's efforts to minimise the adverse health consequences associated with NPS use.

International collaboration has also played a crucial role in enhancing Kazakhstan's capacity to address the NPS crisis. By engaging with global partners, Kazakhstan has been able to share best practices and resources, further strengthening its response to the proliferation of synthetic drugs.

Despite these efforts, challenges remain. The continuous evolution of NPS and the complexity of their distribution channels require ongoing vigilance and adaptation of strategies. The involvement of transnational criminal organisations in drug trafficking underscores the need for robust international cooperation and intelligence sharing.

Moreover, the societal impact of NPS, particularly on vulnerable populations, calls for sustained efforts in prevention and education. The stigma associated with drug use and the lack of comprehensive resocialisation programmes for prisoners convicted of NPS-related offenses highlight areas that need further attention.

It is essential for Kazakhstan to continue strengthening its legal frameworks to keep pace with the rapid development of new psychoactive substances. Simplifying the process for banning new substances and ensuring that law enforcement agencies have the necessary tools to act swiftly are

crucial steps. Enhancing law enforcement capabilities through advanced detection technologies and training will better equip personnel to identify and intercept synthetic drugs. Investing in technical equipment at border checkpoints and improving forensic capabilities are also vital components of this effort.

Expanding international cooperation is another key aspect. Fostering stronger ties with international organisations and neighbouring countries will enhance intelligence sharing and collaborative efforts. Participating in global initiatives and adhering to international best practices will bolster Kazakhstan's ability to combat NPS effectively.

Improving prevention programmes is also crucial. Developing and implementing a unified national prevention strategy that includes universal, selective, and indicated prevention measures will ensure a more comprehensive approach. The focus must be on evidence-based interventions tailored to different demographics, including youth and minors, and promoting community involvement in prevention efforts. Ensuring access to treatment across the country is essential. Regularly updating clinical protocols and developing specialised treatment options for minors will enhance the effectiveness of these programmes. Expanding support services, including counselling and rehabilitation, will facilitate long-term recovery for individuals struggling with NPS addiction.

Broadening the scope of harm reduction initiatives to address the specific needs of NPS users is vital. Providing paraphernalia for non-injection use, offering online support services, and incorporating harm reduction strategies into broader public health policies will help minimise adverse health consequences.

Establishing systematic data collection and analysis mechanisms to monitor NPS use and its impact is necessary in order to make informed policy decisions. Conducting regular surveys and studies will ensure that interventions are based on accurate and up-to-date information.

Creating comprehensive resocialisation programmes for individuals convicted of NPS-related offenses will support their reintegration into society. These programmes should focus on reducing stigma, providing education and job training, and facilitating a smooth transition back into the community.

Launching sustained public awareness campaigns will help educate the population about the dangers of NPS and the importance of seeking help. Utilising various media platforms to reach a wide audience and involving community leaders in spreading awareness will amplify the message.

Continuously evaluating the effectiveness of existing policies and programmes, and being prepared to adapt strategies based on new trends and emerging challenges, is critical. Establishing a feedback loop involving all stakeholders will ensure that policies remain relevant and effective.

In conclusion, while Kazakhstan has made commendable progress in combating the NPS crisis, it is imperative that the country continues to evolve and strengthen its strategies. Ongoing efforts to improve legal regulations, enhance treatment and harm reduction programmes, and foster international cooperation will be key to effectively addressing the challenges posed by new psychoactive substances. The commitment of the government and the collaboration of all stakeholders will be crucial in ensuring the health and safety of the population in the face of this growing threat.

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3. New Psychoactive Substances in Kyrgyzstan: Public Health Risks and Policy Responses

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The chapter provides a concise overview of Kyrgyzstan's efforts to effectively address the challenges posed by new psychoactive substances (NPS). It highlights the nation's commitment to public health, emphasising its adaptability and collaboration in navigating the complex landscape of NPS. The text explores the consequences of NPS use, including drug misuse, infections, and mortality, and discusses their economic and societal implications. It outlines the societal responses, including law enforcement measures, non-governmental organizations (NGO) and community engagement, and policy development efforts. Furthermore, it underscores Kyrgyzstan's active role in global anti-drug initiatives, focusing on international cooperation in legislative development. Recommendations include strengthening law enforcement, improving data collection, expanding community-based harm reduction services, enhancing treatment protocols, increasing public awareness, and promoting international cooperation. The chapter also discusses monitoring progress, research, and development.

Historic Background: Drugs in the Kyrgyz Republic

The Kyrgyz Republic has a rich history of actively combating illegal drug trafficking and drug addiction, dating back to the late nineteenth century when issues related to opium poppy cultivation and opium production first emerged (Tugelbaeva/Khamzaeva 2017). Between 1916 and 1974, the country played a prominent global role in industrial medicinal opium production, boasting vast poppy fields covering up to 64 thousand hectares. It contributed around 80% of the former Union of Soviet Socialist Republics' (USSR's) medicinal opium production and approximately 16% of the world's legal opium production (ibid.). Unfortunately, a significant portion of this opium entered the illicit market, resulting in widespread drug addiction within the population. As a response to these challenges, a pivotal

decision was made in 1974 to cease the legal cultivation of opium poppy in the Kyrgyz Republic, a decision that additionally dealt with issues related to extensive wild cannabis and ephedra growth, which serve as the raw materials for the production of narcotic drugs such as hashish, marijuana, methcathinone, and ephedrine (ibid.).

Drug-related issues became truly problematic in Central Asia during the 1990s, marking a critical juncture in the region's history. During this period, we witnessed the establishment of drug routes and complex logistics networks for drug supply, and the rise of formidable drug cartels. These drug routes, originating from Afghanistan, traversed a network of passes and gorges, connecting with Central Asian republics including Tajikistan and Kyrgyzstan (Bessonov 2024). These routes were adapted to the geographical and infrastructural nuances of the region and various transportation modes for narcotic substances were employed, ranging from rudimentary animal-drawn transport in border areas to sophisticated air transport where feasible.

Since 1993, the criminological situation has deteriorated due to the influx of opioids from Afghanistan into the Central Asian market. There was a significant and steady increase in the trafficking of Afghan opioids until 1997, when another potent semi-synthetic drug, heroin, began to be imported from Afghanistan. The volume of heroin on the drug market surged tenfold within a short period of time (Nogoibaev 2014).

In general, the distribution of these narcotic substances has not only led to an increase in the number of drug users in Kyrgyzstan but has also intensified drug trafficking, sale, and transit.

The year 2016 marked a significant transformation in the drug landscape in Central Asia. Specialised agencies in the region had historically focused on combating drugs of natural origin, amassing expertise in countering their proliferation. However, a seismic shift occurred with the influx of synthetic drugs into the market, rendering these agencies ill-equipped to confront these new challenges effectively (Shamshiev 2016).

The Emergence of Synthetic Drugs in the Kyrgyz Republic

In 2021, in light of the lack of reliable data on synthetic drugs, the Bishkek-based Attika Foundation, the Women's Network of Key Communities, the GLORI Foundation, and the Plus Center Foundation in Osh decided to engage in the collection, monitoring, and analysis of such data. The leaders of

these NGOs coordinate their ongoing monitoring efforts with government structures and international organisations, periodically providing reviews and reports, which we refer to in this chapter.

The United Nations Office on Drugs and Crime (UNODC) defines NPS as substances not controlled by the Single Convention on Narcotic Drugs (1961) or the Convention on Psychotropic Substances (1971), but still posing a threat to public health (UNODC 2024). The UNODC has identified over 1,000 substances globally that, as of January 2021, were not covered by drug control conventions. Among these substances, those with stimulant effects have exhibited the highest growth rates over the past five years. This diverse group of pharmacotoxic compounds presents challenges in terms of predicting and monitoring their adverse effects due to variations in chemical compositions and usage patterns (UNODC, 2024).

Initially observed in Kazakhstan as early as 2009, the infiltration of NPS into Central Asian illicit markets accelerated over the subsequent decade, coinciding with a decline in the availability of conventional drugs. In the Kyrgyz Republic, instances of NPS usage began to surface in 2013, involving in particular synthetic cannabinoids marketed as ‘spice’. By 2014, more than 400 NPS variants had been identified, with the number exceeding 800 by 2020 (Yussopov 2021).

NPS primarily entered Kyrgyzstan from neighbouring countries or via international postal routes from Western Europe. Starting in 2019, law enforcement agencies identified instances of in situ synthesis of NPS and stimulants within Kyrgyzstan, involving precursors and chemical reagents designed for illicit markets. This resulted in an almost threefold increase in the seizure of these precursors during the first half of 2020. Of the substances seized between 2020 and 2023, a substantial proportion comprised 2-(pyrrolidine-1-yl)-1-phenylpentan-1-one (α -pyrrolidinovalerophenone, α -PVP), tetrahydrocannabinol, methcathinone (ephedrone), and mephedrone (Orlova 2023), as well as synthetic cannabinoids.

Simultaneously, synthetic cathinones, known colloquially as ‘salts’, ‘bath salts’, or ‘crystals’, gained prominence in Kyrgyzstan. The first cases of individuals seeking treatment for mental and behavioural disorders associated with NPS, encompassing both synthetic cathinones and synthetic cannabinoids, were documented in 2016–2017 (Yussopov 2021).

In 2019, Kyrgyzstan seized 5.24 kg of synthetic drugs, a quantity that seems relatively inconsequential when compared to the overall volume of other psychoactive substances confiscated during this period. Notably, the Service for Combating Illegal Drug Trafficking in Kyrgyzstan demonstrated

exceptional efficacy over the past three years, successfully confiscating an impressive 15 tons, 951 kilograms, and 729 grams of illicit drugs (Orlova 2023). This constitutes 92.4% of the total volume of drugs seized by internal law enforcement agencies during this time period. Additionally, the Service detected and neutralised 27 covert drug laboratories involved in the illicit production of narcotic drugs and psychotropic substances.

According to data reported by the country's Interior Ministry, in 2023 the law enforcement agencies of Kyrgyzstan seized six tons, 680 kilograms, and 685 grams of narcotic drugs, psychotropic substances, and precursors from illegal circulation. Additionally, 1,314 drug offenses were uncovered, twelve underground drug laboratories were liquidated, the activities of 84 criminal drug groups were suppressed, and 120 wanted persons were detained. For drug-related offenses, 95 persons were brought to responsibility. Cases of the legalisation of proceeds from the illegal drug industry to the value of more than 15 million soms (USD 166,700) were also revealed. Two residential houses and four vehicles belonging to drug traffickers were confiscated as a part of the police interventions (*ibid.*).

The predominant channel for NPS acquisition continues to be electronic communication platforms, with urban centres such as Osh and Bishkek witnessing the highest prevalence of usage. Telegram stores have emerged as the dominant medium for online drug trafficking, closely followed by WhatsApp and other virtual platforms. In Kyrgyzstan, as well as across all Central Asian nations, electronic communication channels prevail as the primary conduit for diverse population groups to access NPS. Research conducted in Kazakhstan underscores the progressive transition of drug dealers towards traditional contact channels to engage potential consumers. However, it is noteworthy that only one third of NPS users engage in traditional contact transactions. Bishkek, in particular, has firmly established itself as the epicentre of Telegram-based drug commerce. The two most frequently traded substances in the country have been mephedrone and alpha-PVP, with their presence more pronounced outside the urban centres of Osh and Bishkek. Notably, certain pharmaceutical products, such as Trigan-D, Cyclomed, and Lyrica (pregabalin), which yield comparable effects when consumed recreationally, have served as alternatives to NPS (Bessonov/Nikitin 2021).

A salient aspect of drug markets is the deceptive practice of selling synthetic drugs under the guise of conventional substances. The rationale behind this strategic shift lies in the cost-effectiveness of NPS production and distribution. Thus, the country's drug market is undergoing a con-

sistent step-by-step change, characterised by the decreasing availability of traditional drugs, the ever-increasing position of NPS, the diversification of trade channels, and aggressive marketing. The data on the structure of proposed goods and their seizures indicate an increase in the share of synthetic stimulants in the sales and consumption of various key populations. Electronic trading methods have led to the activation of contactless payment systems.

In conclusion, NPS are becoming one of the more dangerous problems affecting various aspects of life in the Kyrgyz Republic.

The Consequences and Harms of NPS Use (Overdoses, Infections, and Crime)

The consequences stemming from the use of NPS are multifaceted, encompassing drug misuse, the transmission of infections through non-sterile injection equipment and unprotected sex, and mortality arising from both direct and indirect causes. These repercussions have wide-ranging implications, including increased healthcare costs, economic losses, and a range of negative impacts on the families of people who use drugs.

One pivotal measure for assessing drug-related harm is the number of drug-related deaths (DRD) associated with NPS. These statistics are crucial when it comes to carrying out risk assessments, cost evaluations of illegal drugs, epidemiological research, and policy deliberations (Mravcik et al. 2014).

Despite the absence of readily available data on DRDs in the Kyrgyz Republic, government officials prioritise addressing and reducing such incidents. One factor that contributes to the lack of data on NPS poisoning in the Kyrgyz Republic is the limited laboratory capacity of forensic organisations, which currently focus on qualitative determinations of metabolites from ‘traditional’ drugs in biological fluids (Alymbaeva et al. 2020).

Furthermore, the Toxicology Service, responsible for emergency care in cases of substance poisoning, lacks analysers capable of identifying NPS and their metabolites. Fatalities are also recorded in connection with ‘traditional’ non-synthetic drugs. These observations may indicate the limited capacity of the system to record and verify fatalities, especially when establishing a clear causal link is essential (Alymbaeva et al. 2020).

According to Bessonov and Nikitin (2021), polydrug use is prevalent among NPS users, with 81% of toxicology cases involving multiple substances. In nearly half of these cases, controlled substances like

methamphetamine or cocaine were detected, and medicines and alcohol were present in 82% of post-mortem cases. Moreover, 19% of post-mortem cases involved the use of multiple NPS.

One significant adverse effect associated with the use of synthetic stimulants is an increased risk of human immunodeficiency virus (HIV) and other sexually transmitted infections (STI) (Bessonov/Nikitin 2021). Numerous studies have established a link between synthetic stimulant use and HIV infection, even when injection is not the sole mode of transmission. International guidelines emphasise the importance of integrated assessments for individuals using NPS or synthetic stimulants to enhance service provision.

The most substantial NPS usage and related harms are observed among young people, particularly in the 18–25 age group. Surveys consistently reveal a higher percentage of drug users among young individuals compared to older age groups. The critical period for NPS use typically begins in early adolescence and extends into late adolescence (Yussopov 2021).

Between 2016 and 2017, individuals began seeking treatment for mental and behavioural disorders resulting from the use of NPS, including synthetic cathinones and synthetic cannabinoids. According to the Republican Center for Psychiatry and Narcology, there were 500 cases of potent drug consumption recorded in 2023, with a significant portion involving individuals aged 14 to 18 (Yussopov 2021).

In addition to crimes directly related to the use and distribution of NPS, it's important to note instances of thefts committed by young people involving money and jewellery. Initially, these thefts often occur within homes, but they subsequently expand to unattended places. In extreme cases, physical harm caused during theft or street assaults or through involvement in criminal groups as one-time perpetrators are notable concerns (Bakirova 2024).

The Response of Society, Community-Based Agencies, and Political Institutions to the Emergence of New Drugs

The emergence of NPS in Kyrgyzstan has led to a significant increase in activities across various social groups. The country has witnessed advancements in technical capabilities for drug detection and seizure, alongside efforts to introduce innovative methods to assist individuals struggling with addiction and their immediate communities.

In the Kyrgyz Republic, law enforcement agencies have specialised units dedicated to combatting illicit drug trafficking. They carry out their operations through various means, including safeguarding the state border, monitoring imported goods and individuals entering the country, and participating in joint international operations involving the controlled delivery of drugs, psychotropic substances, and precursors. Notably, the Anti-Drug Trafficking Service of the Ministry of Internal Affairs of the Kyrgyz Republic has strategically incorporated drones into their operations as a tool to combat the illicit drug trade. The ministry's press service officially reported this significant shift in strategy.

Furthermore, a noteworthy development occurred as the Head of the Anti-Drug Trafficking Service of the Ministry of Internal Affairs of the Kyrgyz Republic actively engaged in a regional experts' meeting focused on unmanned aerial vehicles (UAVs) and cutting-edge technologies. This meeting took place in Karakol City, Kyrgyzstan and underscored the commitment of local authorities to harness modern innovations in their fight against drug-related issues (International Narcotic Control Board 2017).

Another notable trend in response to the NPS challenge is the increasing influence of organisations dedicated to assisting individuals grappling with the consequences of NPS misuse. Between 2021 and 2023, over 180 international events were convened to strengthen cooperation and foster new partnerships with foreign governmental bodies and international organisations. These collaborative efforts aimed to collectively combat drug trafficking and address the multifaceted challenges posed by NPS (UNODC 2023).

To explore the potential for multisectoral collaborations among governmental agencies, non-governmental organisations, academic institutions, and research centres, with a specific focus on understanding the NPS landscape and enhancing the accessibility and effectiveness of services for NPS users, a conference entitled 'Finding Effective Solutions to the Problem of New Psychoactive Substances in Kyrgyzstan: Review of Multisectoral Partnerships of Communities, Scientists, and Practitioners' was organised with support from the UNODC Programme Office in the Kyrgyz Republic and the Joint United Nations Programme on HIV/AIDS (UNAIDS) Country Envelopes Fund (Finding Effective Solutions 2021). This conference brought together key stakeholders and experts, including the Attika Foundation, the Plus Center Foundation, and the Global Research Institute (GLORI) Foundation. Forty-six experts, specialists, and representatives from international organisations across Central Asia participated, gaining valuable insights into the NPS landscape within Kyrgyzstan and the broad-

er region. The conference served as an essential platform for in-depth discussions on strategies to enhance access to treatment and effective services for individuals grappling with drug-related challenges.

In his presentation at the mentioned conference, Mr Sergei Bessonov, the head of the Attika Foundation, shed light on the factors contributing to the distribution of NPS within Kyrgyzstan. To facilitate the provision of comprehensive assistance, encompassing medical, psychological, and social support, to individuals suspected of or diagnosed with NPS abuse, the UNODC initiated a study in 2019, which explored the mechanisms of interaction between actors involved in the delivery of services to people with NPS addiction. In addition, regular monitoring assessments conducted by the Attika Foundation together with partner organisations have revealed a relationship between the quality of this interaction (for example, with municipal ambulance services, parent activists, law enforcement agencies, etc.) and the level of satisfaction that people with disabilities and NPS addiction express regarding the quality of the services they received. Efforts to introduce gender-specific services also have a significant impact on this indicator (UNODC 2023). This comprehensive effort culminated in having developed the Clinical Guidelines for Assisting Adult Drug Users of New Psychoactive Substances and a new clinical protocol on NPS approved by the Ministry of health in 2024. These invaluable resources are being integrated into the operational framework of medical institutions.

Additionally, Mr Danil Nikitin, Director of the Global Research Institute (GLORI) Foundation, emphasised the concerns expressed by drug-addicted girls and women during focus group discussions. These individuals lamented that their addiction often went unnoticed by family members and friends for extended periods. Consequently, it is imperative to recognise that heightened awareness and the active involvement of the close relatives of substance users constitute a critical response to the emergence of NPS. With the increased availability of more affordable drugs on the market, the risk of them being used by young people has significantly risen (UNODC 2023).

To address this growing challenge, Kyrgyzstan has initiated numerous programmes aimed at educating and informing young people about the risks associated with drug use. For example, the Strengthening Families Program, also known as SFP 10-14, represents a skill-building initiative targeting parents, youth, and families. Its primary objective is to prevent substance abuse and related behavioural problems among teenagers. This programme was piloted in Bishkek, Kyrgyz Republic, in close collaboration

with the Ministry of Education and Science and the Republican Center of Drug Misuse of the Ministry of Healthcare, with funding support provided by the European Union. The initial phase of SFP implementation involved a comprehensive four-day training workshop held in Bishkek from 27th to 30th March 2018 (UNODC 2018). During this workshop, 26 teachers and school psychologists from three schools received specialised training under the direct supervision of two international SFP experts to prepare them to work as national SFP trainers.

Legislative Developments in the Field of Countering NPS

The Kyrgyz Republic, as a full member of the United Nations, is committed to upholding the political principles declared by the UN General Assembly. In addition, it aligns with the decisions made by the Commission on Narcotic Drugs, follows the guidelines provided by the International Narcotics Control Board, and complies with recommendations from the World Health Organization (WHO).

In 1994, the Kyrgyz Republic ratified key international conventions, including the Single Convention on Narcotic Drugs of 1961, the Convention on Psychotropic Substances of 1971, and the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988.

The country's anti-drug legislation adopts a public health approach towards drug users, viewing them as individuals in need of treatment rather than as criminals. Consequently, criminal law does not encompass the notion of 'responsibility for use'; however, it does impose liability for the unlawful manufacture, acquisition, possession, transportation, or trafficking of narcotic substances, psychotropic substances, or their analogues. Chapter 14 of the Code of Offenses, comprising sections 96 to 101, delineates the legal framework governing breaches of control within the sphere of narcotic substances, psychotropic substances, their analogues, or their precursors.

Article 96 stipulates penalties for the illicit manufacturing, acquisition, possession, transportation, or trafficking of narcotic substances, psychotropic substances, or analogues without intent for distribution. Article 97 specifies the accountability for neglecting measures to eradicate wild-growing drug-containing plants by individuals overseeing land plots or engaging in the cultivation of prohibited drug-containing crops. Article 98 addresses

instances of contravening regulations concerning the production and circulation of narcotic and psychotropic substances, their analogues, or their precursors. Article 99 outlines the liability for violating the protocol for the destruction of narcotic and psychotropic substances, their analogues, or their precursors. Article 100 prescribes penalties for breaches of the inventory procedure regarding narcotic and psychotropic substances, or their analogues. Article 101 pertains to cases involving incitement to use and the advertisement (including graffiti placement in public areas) of narcotic substances, psychotropic substances, or their precursors, as well as plants containing narcotic substances, psychotropic substances, their precursors or their constituent parts, along with new potentially hazardous psychoactive substances.

To address the growing issue of NPS, in 2018 Kyrgyzstan made significant legislative changes. These changes were incorporated into both the Law 'On Narcotic Drugs, Psychotropic Substances, and Precursors' and the Decree of the Kyrgyz Republic Government #535. Notably, the National List of Drugs, Psychotropic Substances, and Their Precursors Subject to Control in Kyrgyzstan was expanded to include 120 new formulas, including cathinones, alpha-PVP, and mephedrone (Ministry of Justice of KR 2019).

In January 2019, a comprehensive legal reform was enacted to humanise justice and amend repressive measures within criminal law. However, these reforms did not impact the articles related to drugs and HIV. As a result, the previous Penal Code of the Kyrgyz Republic became obsolete, and penalties for drug-related offenses involving small amounts without the intent of sale were transferred to the realm of 'misdemeanours', with fines and restrictions of freedom as consequences.

In the legal framework of the Kyrgyz Republic, the consumption of narcotics or psychotropic substances in public spaces is equated with the consumption of alcoholic beverages. Sanctions for such infractions are delineated in Article 127 (Chapter 17) of the Code of Administrative Offenses, entitled 'Use of narcotic drugs or psychotropic substances without medical indications, consumption of alcoholic beverages in public places'. Consequently, minor transgressions regarding the circulation of narcotic drugs, psychotropic substances, their analogues, or their precursors, as well as breaches of public order (such as the consumption of narcotic drugs or psychotropic substances in public spaces), have been declassified, as stipulated by the Code of Administrative Offenses of the Kyrgyz Republic.

Contrarily, the Criminal Code of the Kyrgyz Republic (Chapter 36) addresses criminal responsibility for offenses concerning the distribution of narcotic drugs, psychotropic substances, their analogues, and their precursors. In Chapter 37 of the Criminal Code of the Kyrgyz Republic, provisions exist for crimes against public health. We are specifically interested in two sections of this chapter: Article 292 ('Illegal trafficking of potent or poisonous substances for the purpose of sale') and Article 293 ('Illegal trafficking of potent or poisonous substances'). All aforementioned offenses, contingent upon aggravating circumstances and qualifying factors, incur penalties of imprisonment and fines of varying categories. The amounts of the fines and the terms of imprisonment are determined by the legislator in Articles 65 and 67 of the Criminal Code of the Kyrgyz Republic. Fines are calculated in conditional units and range from USD 225 to USD 2,225. Imprisonment for the enumerated offenses and crimes, contingent upon their classification, varies from six months to 15 years.

In March 2024, President of Kyrgyzstan Sadyr Japarov signed the Law on Narcotic Drugs, Psychotropic Substances, their Analogues and Precursors (Kudryavtseva 2024). The document was adopted by the Parliament on January 24, 2024.

The law, among other measures, provides for regulation of relations in the sphere of trafficking in narcotic drugs, psychotropic substances, their analogues and precursors, as well as living organisms containing them that demonstrates innovative approach in combating the NPS.

The legal framework for health, healthcare, and related systems in Kyrgyzstan is primarily governed by the Law of the Kyrgyz Republic, 'On Public Health', enacted in 2009. While this law does not explicitly mention psychoactive substances, its provisions are closely tied to public health, making it relevant to issues related to psychoactive substance use and the rights of individuals who use drugs, including access to healthcare services (Attika Foundation 2023).

Treatment protocols for young people with NPS addiction in Kyrgyzstan are outlined in a unified protocol entitled 'Treatment of Mental and Behavioural Disorders Resulting from the Use of New Psychoactive Substances in Children and Adolescents', ratified in 2017. A corresponding protocol for the adult population is currently under development.

In a proactive response intended to combat drug addiction and its associated consequences, the Government of the Kyrgyz Republic approved the Anti-Drug Programme, along with its Action Plan, for implementation from 2022 to 2026, with a special focus on NPS. These measures aim to

reduce the prevalence of drug addiction and its negative outcomes in the population (Kyrgyz National Statistics Committee 2024).

Amendments to the Criminal Code to address pharmacy drug abuse were initiated in 2023, with the bill submitted for public discussion. The bill seeks to criminalise the inducement to consume substances classified as potent medicines and improve legislative norms for countering illicit drug trafficking.

International Cooperation in Legislative Development

The Kyrgyz Republic has maintained a steadfast commitment to an anti-drug policy since gaining independence in 1991, recognising the pivotal role of international cooperation in addressing the global drug trade. To combat this issue effectively, the country has established a comprehensive system of international coordination. Cooperation with the international structures is carried out within the framework of the common fight against narcotic and psychotropic substances, which include synthetic drugs.

In 1994, the Kyrgyz Republic became a signatory to major international conventions on drug control, formalising its participation in the global anti-drug framework. This collaboration extends to esteemed organisations such as the International Narcotics Control Board (INCB), UNODC, the United Nations Development Programme (UNDP), WHO, and UNAIDS.

The Kyrgyz Republic actively engages in both bilateral and multilateral international agreements involving various governmental and interagency levels to combat illicit drug trafficking. Notably, the country's accession to the International Criminal Police Organization (INTERPOL) marked a significant achievement.

Within the Commonwealth of Independent States (CIS), internal affairs agencies coordinate their anti-drug efforts through the Office for Coordination of the Fight against Organized Crime and Dangerous Crimes (OC-FOCDC), established in 1993. Additionally, the formation in 2005 of a Coordinating Council of heads of competent Authorities, designed to combat drug trafficking within the Collective Security Treaty Organization (CSTO), has bolstered efforts against drug-related issues.

The Kyrgyz Republic's anti-drug initiatives include developing draft strategies and action plans for drug prevention, joint preventive operations, conferences, working group sessions, and the exchange of vital information within the Shanghai Cooperation Organisation (SCO).

In collaboration with the United Nations, the Kyrgyz Republic participates in an annual international operation to prevent the illicit manufacturing of heroin (TARCET). Furthermore, the country has been actively involved in anti-drug activities under the Central Asia Drug Action Programme (CADAP) in cooperation with the European Union. The Kyrgyz Republic is also a member of the International Drug Enforcement Conference (IDEC), a global alliance of 91 countries working to fight against illicit drug trafficking.

Recognising the escalating drug threat, the Kyrgyz Republic, in partnership with neighbouring countries, signed a memorandum of understanding on regional cooperation in drug control. This led to the establishment of the Central Asian Regional Information and Coordination Centre (CARICC), which focuses on organising, conducting, and coordinating joint international operations to combat illicit drug trafficking.

The Kyrgyz Republic's National Security Concept emphasises regional integration and prioritises combating international terrorism, drug trafficking, and various socio-economic and environmental challenges as key regional concerns.

The Kyrgyz Republic's approach to addressing drug-related issues adheres to the principles of comprehensiveness and balance, aligning with universally accepted principles and objectives enshrined in the United Nations Charter and international drug control conventions. This approach emphasises the importance of international cooperation in disrupting drug trafficking routes from producers to end users.

Medical and Harm Reduction Services in the Context of New Psychoactive Drugs

Under Kyrgyz law, individuals with mental disorders due to psychoactive substance use (according to the International Classification of Diseases, Tenth Revision (ICD-10)) are referred to the Republican Center for Psychiatry and Narcology (RCPN) in Bishkek and its branch in Osh, which provide standard public drug treatment services to all patients with chemical addiction, including minors. The most common service provided is detoxification. The RCPN work is guided by the Clinical Protocol for the Care of Children and Adolescents, which includes a section on NPS overdoses, reflecting the frequent occurrence of such cases. Common symptoms

of NPS overdose include impaired consciousness, cardiovascular and respiratory failure, nausea, vomiting, and convulsions.

There are no specialised clinics in the country that could position themselves as resources specifically for working with NPS users. Rehabilitation services for people with NPS dependence are provided in private rehabilitation centres, most of which are located in Bishkek. The cost of their services varies from USD 700 to USD 1,000 per month and is barely affordable for ordinary patients. Many of the patients at these rehabilitation centres come from Kazakhstan, Russia, and Ukraine. Services for minors are not provided at these centres, at least not officially. Psychotherapy is also practised at both public drug treatment clinics and private rehabilitation centres.

Compared to other countries in the region, Kyrgyzstan offers extensive harm reduction services designed primarily for people who use opioids, their peers, and their family members. It is well-recognised that drug use contributes to the spread of serious infections like HIV, tuberculosis, and hepatitis. In 2013, Kyrgyzstan established 48 needle exchange points nationwide, including seven within the penitentiary system. Furthermore, concerted efforts have been undertaken to reduce mortality associated with drug use, which accounted for 2% of fatalities in 2013 (International Narcotic Control Board 2017). However, Kyrgyzstan currently lacks harm reduction and overdose prevention programmes designed explicitly for NPS users (EHRA 2021).

Community-based agencies engaged in prevention and harm reduction have expressed concerns about their limited involvement in addressing the needs of NPS users in treatment, care, and rehabilitation. The opportunity to involve the communities themselves was there when the Community Advisory Boards were formed under government agencies, including the Ministry of Health and the RCPN. However, in 2021, when it was decided to cancel them, this window of opportunity closed and no legitimate alternative to the supervisory board of the RCPN was proposed. Understanding of the risks associated with most NPS is currently limited, due to a lack of comprehensive studies. Nonetheless, various sources suggest that NPS can pose significant health hazards, a fact well-known to most people who use NPS. The chemical addiction treatment system plays a crucial role in providing medical and social assistance to individuals with a history of NPS or stimulant use (EHRA 2021).

Given that the RCPN in Bishkek and its branch in Osh have witnessed a growing number of cases linked to NPS-induced mental disorders, there

is clearly a need to include NPS-related data in information collection forms, a matter currently under consideration by the Central Health and the National Statistical Committee.

The absence of services aimed at disseminating information on NPS overdose prevention is a significant concern. Both government and NGO sector professionals highlight the fact that there is a lack of the knowledge and skills needed to assist individuals with NPS use disorders. Research on the risks, consequences, dosages, and care for NPS users is almost non-existent.

In 2022, a pioneering web outreach initiative took place in Kyrgyzstan, centred in Bishkek, spearheaded by the Attika Foundation (Bessonov 2022). This comprehensive endeavour, which included meticulous planning and execution, aimed to bridge gaps in mental health services, particularly targeting individuals with substance use disorders. Through this initiative, a dedicated website was established, offering valuable resources and support to those in need. Additionally, preventive care packages were procured and distributed, enriching the outreach efforts.

Crucially, the implementation of this project received essential backing from the Global Fund, enabling focused support for individuals grappling with drug addiction, especially those who inject substances. Building upon the success of this endeavour, community advocacy efforts yielded significant progress. With vital support from the Elton John Foundation in 2023, a complementary project was launched to extend support to individuals who use non-injectable drugs. Drawing on the positive outcomes observed in neighbouring Kazakhstan, the project's conceptualisation emphasised culturally sensitive and evidence-based interventions.

Regrettably, despite its noble objectives, the current execution of this project falls short due to insufficient engagement with affected communities and community-based agencies dedicated to supporting men-who-have-sex-with-men (MSM) populations. This oversight highlights the critical need for more inclusive planning and implementation strategies.

To address these challenges and enhance capacity, a series of training seminars were organised throughout the country, facilitated by esteemed national and international experts such as Sergei Bessonov, Nikolay Unguryanu, and Alexey Lahov. These sessions aimed to empower frontline workers with updated knowledge and skills, fostering a more responsive and empathetic approach to mental health and substance use issues.

It's worth noting that while the broader landscape of HIV services has seen limited evolution in recent years, efforts within the aforementioned

project, supported by the Elton John Foundation, have yielded tangible benefits. Beneficiaries now have improved access to essential resources such as condoms, lubricants, and other harm reduction tools, underscoring the project's potential to positively impact public health outcomes.

In summary, the existing services for NPS users in the drug treatment system closely resemble those for other drug use disorders. The authors strongly believe that regular monitoring and evaluation of existing clinical protocols to improve them further and update them in line with the current situation will significantly help the system to apply the up-to-date services for NPS users.

Conclusion

While Kyrgyzstan has made significant strides in providing harm reduction services primarily designed for individuals using opioids, there is an opportunity for further improvement by involving community-based services in addressing the needs of NPS users. Additionally, there is room to enhance the understanding of the specific risks associated with NPS use through comprehensive studies.

Addressing the complex challenges posed by NPS in Kyrgyzstan calls for a collaborative effort involving a wide range of stakeholders, including law enforcement agencies, NGOs, and international partners. By increasing awareness, training and education, and tailoring harm reduction services specifically to NPS users, we can effectively mitigate the evolving risks associated with these substances.

The authors emphasise the importance of ongoing monitoring and evaluation of existing clinical protocols. This will allow for necessary enhancements and updates to better adapt to the changing landscape and meet the demands of emerging drug challenges, ensuring a more responsive system.

Recommendations:

1. Strengthen law enforcement efforts:
 - Continue and enhance law enforcement efforts to combat NPS trafficking and production within the country.
 - Increase cooperation with neighbouring countries, particularly Russia and China, to curb the inflow of NPS into Kyrgyzstan.

- Consider further legislative measures to address the production, trafficking, and possession of NPS, keeping pace with the evolving nature of these substances.
2. Enhance data collection and research:
- Invest in improved data collection and research to better understand the NPS landscape within the country.
 - Develop specialised epidemiological algorithms to systematically monitor and analyse NPS addiction cases and regional trends.
 - Collaborate with international organisations and research institutions to conduct comprehensive studies on NPS, including their risks, consequences, dosages, and care.
 - Recognise the changing drug scene and allocate resources to adapt harm reduction services to the needs of NPS users.
 - Develop specialised harm reduction and overdose prevention programmes tailored to NPS users.
 - Provide training and education to both state-sector and non-state-sector professionals to equip them with the knowledge and skills needed to assist individuals with NPS use disorders.
3. Improve treatment protocols:
- Develop clear and comprehensive treatment protocols for individuals diagnosed with NPS use disorders, both for children and adolescents and for the adult population.
 - Ensure that treatment centres are equipped to handle cases related to NPS-induced mental disorders.
 - Consider integrating patients with evidence of NPS use into existing drug dependence treatment methods, such as methadone maintenance therapy, which should have clear guidelines on how they are to be managed and should be designed taking gender-specific needs into account.
4. Increase public awareness:
- Launch public awareness campaigns to educate the general population, particularly young people, about the risks associated with NPS use.
 - Collaborate with schools and educational institutions, as well as with parents of young drug users to incorporate drug education programmes, emphasising the dangers of NPS, into the curriculum.
 - Promote community-based initiatives aimed at raising awareness about the consequences of drug use and encouraging individuals to seek help when needed.

5. Strengthen international cooperation:
 - Continue active engagement with international organisations, neighbouring countries, and regional initiatives to combat the illicit drug trade and address NPS-related challenges.
 - Explore opportunities for joint international operations and information sharing to disrupt drug trafficking routes.
 - Consider participating in relevant international programmes and conferences to learn from best practices and share experiences with other nations facing similar issues.
6. Monitor and evaluate progress:
 - Establish a monitoring and evaluation framework to assess the effectiveness of various initiatives and policies addressing NPS-related problems.
 - Regularly review and update strategies and action plans to remain relevant and aligned with emerging trends.
7. Promote research and development:
 - Encourage research and development efforts to identify innovative solutions for detecting and addressing NPS-related issues.
 - Explore the use of technology and advanced analytical methods to stay ahead of the evolving nature of NPS.
8. Collaborate with NGOs and civil society:
 - Foster collaboration with NGO dedicated to harm reduction, prevention, and rehabilitation to leverage their expertise and resources in addressing NPS challenges.
 - Engage civil society organisations in awareness campaigns and community-based initiatives to promote a holistic approach to tackling NPS problems.
9. Invest in laboratory and forensic capabilities:
 - Strengthen the capacity of forensic organisations and the Toxicology Service to identify NPS and their metabolites in biological fluids.
 - Provide continuous training for engaged professionals throughout their working careers, thus ensuring supportive conditions to avoid burnout.
 - Invest in advanced laboratory equipment and analytical techniques to enhance the accuracy of NPS detection and analysis.

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4. Review of New Psychoactive Substances Use: Trends, Challenges, and Strategies in the Context of Uzbekistan

Guzalkhon Zakhidova, Jakhongir Ravshanov, Gulnoza Abdukakharova

Uzbekistan recorded an 18.4% increase in drug trafficking offences in 2021. The city of Tashkent was at the forefront of drug offences, especially those involving new psychoactive substances (NPS). Internet networks, in particular the messenger service Telegram, have become a platform for the advertising and marketing of drugs. For the first time, cases of drug manufacture in clandestine laboratories have been recorded. To combat this phenomenon, the country is developing legislative approaches and models of assistance to provide support to people with drug addictions, oriented towards a comprehensive solution to the problem. Of the various NPS on the market, synthetic cannabinoids and synthetic cathinones predominate in Uzbekistan. In recent years, there has been an increase in the number of people registered at narcological clinics with NPS use disorders. NPS use behaviour is a serious problem, given the risk of psychiatric disorders and the unpredictable effects of these substances. Addressing this problem requires a comprehensive approach that includes education, improved legislation, health system development, and social support, with coordinated efforts from the state, community organisations, and healthcare providers. However, there are various barriers to providing assistance to NPS users, such as sociocultural biases, technical problems with data collection, and the legal stigmatisation of drug addicts.

The New Challenge of New Psychoactive Substances in Uzbekistan

New psychoactive substances are chemical substances with similar effects to traditional drugs, appearing on the market with new chemical formulas that makes them difficult to define. These substances were known as ‘designer’, ‘synthetic’, ‘chemicals’, and so on until the United Nations Office on Drugs and Crime (UNODC) coined a special term for them in 2009: ‘new psychoactive substances’.

The emergence of new psychoactive substances on the drug scene is becoming increasingly relevant in Central Asian countries, as seizures of NPS (synthetic cathinones and synthetic cannabinoids) and their use among problem drug users have already been reported in Uzbekistan (Zabransky/Mravcik 2019).

In recent years, there has been a shift in the Russian Federation (RF) and Central Asia from opioids to synthetic stimulants. This transition coincided with the rapid emergence of synthetic drugs, which quickly gained market dominance, leading to a decline in the market share of opiates (United Nations Office on Drugs and Crime 2020).

According to the Deputy Minister of Internal Affairs of Uzbekistan, young people are moving away from 'traditional' drugs such as opiates, heroin, cocaine, cannabis, and alcohol and are instead using more potent and psychotropic substances (Gazeta.uz 2020).

It should be noted that the global drug situation, including in Uzbekistan, has been affected by the Covid-19 epidemic. Since the beginning of 2020, drug users—in addition to traditional drugs, such as heroin, opium, poppy straw (kuknara), marijuana, and hashish—have sought treatment for substance use disorders relating to the use of pregabalin ('regapen'), tropicamide, mephedrone, dimedrol, desomorphine, zopiclone ('sonnate'), and tramadol, as well as mixtures made from poppy seeds and other ingredients. Almost all types of drugs are available on the black market, including heroin (less common), opium, marijuana/anasha, hashish, amphetamine, mephedrone, pregabalin, 'spice', alfa-PVP, and others (UNODC Research and Trend Analysis Branch 2020). Information on the number of NPS users remains insufficient, especially given the difficulties in identifying and counting young users because of their mistrust of official authorities and due to the sociocultural specificities of the region.

Changes in Drug Use in Uzbekistan Caused by the Covid-19 Epidemic

According to a report by the UNODC Regional Office for Central Asia, the Covid-19 epidemic has had an immense impact on the drug use situation, drug services, and harm reduction programmes in Central Asian countries. Patterns of substance use have changed rapidly in various regions of Uzbekistan. For example, a significant increase in alcohol use was registered in the Republic of Karakalpakstan. A high prevalence of cannabis smoking was revealed in Andijan, Fergana, and Namangan provinces. In the latter

two provinces, the use of various pharmacy pills was also widespread. In Bukhara province, the use of desomorphine ('crocodile') by injection was reported. In Navoi province, cannabis smoking, oral use of tramadol and opium, and injecting of desomorphine was documented. In Samarkand province, pregabalin, tramadol, and opium use and heroin injection dominated. In Tashkent province, a decrease in injecting and an increase in smoking drug use were observed.

The frequency of drug use during Covid-19 quarantine decreased due to poor drug supply (such as heroin, opium, cannabis, and 'spice') and the high prices of drugs. Users started to find cheap substitutes at the pharmacy. For example, local users started using Bralget (a non-steroidal anti-inflammatory drug) and Phenibut (a nootropic drug) instead of pregabalin or switched to injecting mixtures prepared from confectionery poppy seeds. People who inject drugs (PWID) tried to prepare their own injecting mixtures or enhance the effects with pharmaceutical adjuvants. Available data from regional Confidence Cabinets (except Tashkent city and Tashkent region) indicated an increase in injection drug use of tablet mixtures, probably due to either the inability to obtain the required opioid drugs or to limited financial resources.

Overview of the Drug Situation in Uzbekistan

The drug situation in the country can be observed through the prism of two key groups of characteristics. The first is the work of law enforcement agencies to suppress the distribution of narcotic substances and precursors in Uzbekistan (drug supply). The second group of indicators covers the provision of medical and psychosocial assistance by narcologists, psychiatrists, and psychotherapists (drug demand). Preventive work is carried out by legal and medical structures, as well as with the participation of the Ministry of School and Higher Education.

In 2021, 7,142 offences related to drug trafficking were detected. The number of offences related to drug trafficking was 18.4% higher than in the previous year. At the same time, 2,165 offences were related to drug trafficking, 441 to smuggling, 1,571 to the illegal cultivation of narcotic plants, and 53 to the maintenance of drug dens.

There was a 24.2% increase in the number of crimes related to trafficking psychotropic medications and a 76.7% increase in the number of seizures

of those psychotropic medications. The structure of seized narcotic drugs is presented in Table 1.

Table 1: Narcotic and psychotropic substances seized in Uzbekistan in 2020 and 2021 (National Information-Analytical Center on Drug Control under the Cabinet of Ministers of the Republic of Uzbekistan 2022)

Table 1: Narcotic and psychotropic substances seized in Uzbekistan in 2020 and 2021 (National Information-Analytical Center on Drug Control under the Cabinet of Ministers of the Republic of Uzbekistan 2022)

Substances	Seized quantities	
	2020	2021
Heroin	28.31 kg	102.96 kg
Opium	124.1 kg	342.7 kg
Poppy straw (kuknar)	323.9 kg	77.9 kg
Hashish oil (cannabis oil)	127.3 kg	0.002 kg
Hashish	223.9 kg	511.1 kg
Marijuana	692.8 kg	790.9 kg
Cocaine	279.4 g	15.2 g
Synthetic drugs	1,528.3 g	8,973.3 g
Other drugs (MDMA, amphetamine, mephedrone, LSD, and other types of narcotic drugs)	446.98 g	8,115.2 g
Medicines containing narcotic drugs	19.96 kg	21.7 kg

In 2021, there were nearly double the number of recorded offences linked to the distribution and usage of synthetic cannabinoids compared to the previous year, with 181 cases in contrast to 95. Tashkent city accounted for the majority of drug offences related to NPS, with 170 such crimes committed there in 2021 versus 93 in 2020. The number of NPS crimes in other regions was significantly lower. In Tashkent region, there were registered 5 crimes. In Khorezm region, 4 crimes were detected. In the Republic of Karakalpakstan and the Andijan region, only one crime was

recorded. NPS-related crimes comprised 10.1% of all registered crimes in Tashkent: 4 crimes were for smuggling, 40 were for the sale of drugs, and 126 were related to the possession of drugs without intent of sale, i.e. for personal consumption (National Information-Analytical Center on Drug Control under the Cabinet of Ministers of the Republic of Uzbekistan 2022).

Internet networks are widely used to advertise and sell drugs. The most popular is Telegram messenger, which is used by about 18 million people throughout Uzbekistan. There are many different channels, profiles, and bots offering users to buy various drugs in Tashkent and other regions of the country. Advertisements for these Telegram channels, profiles, and bots are increasingly appearing in public places in Tashkent and other cities in Uzbekistan in the form of inscriptions on walls and pavements (so-called 'drug graffiti').

In 2021, for the first time in Uzbekistan, five cases of local drug manufacturing were detected. A total of 3,977 g and 4,316 tablets of psychotropic substances were seized from illicit trafficking by the country's law enforcement agencies. In addition, 71 kg and 15 litres of precursors were seized in the same year.

Measures to Combat the Trafficking of Psychoactive Substances

To protect public health, the international community has developed a range of legislative approaches to effectively address the dynamics of the NPS market. In the Republic of Uzbekistan, various legislative strategies are being formulated to effectively manage the evolving NPS market. These strategies include leveraging existing health protection and promotion laws, as well as crafting innovative new legislation. In Uzbekistan, the term 'NPS' is used relatively rarely and mainly as a collective concept used by medical specialists. There is no legal definition of 'NPS'. But in the Law of the Republic of Uzbekistan 'On Narcotic Drugs and Psychotropic Substances' (19th August 1999, No. 813-I), the following terms are used: 'narcotic substances', 'psychotropic substances', and 'analogues'. Narcotic substances are substances of synthetic or natural origin, drug-containing preparations, and plants included in the lists of narcotic drugs and subject to control in the Republic of Uzbekistan. Psychotropic substances are defined as substances of synthetic or natural origin included in the list of psychotropic substances and subject to control in the Republic of Uzbekistan. Analogues of narcotic

or psychotropic substances are substances of synthetic or natural origin, similar in chemical structure and properties to narcotic or psychotropic substances, the psychoactive effect of which they reproduce (Law of the Republic of Uzbekistan 1999).

In accordance with Decision No. 330 of 12th November 2015 of the Cabinet of Ministers of the Republic of Uzbekistan 'On improving the procedure for import, export and transit through the territory of the Republic of Uzbekistan of narcotic drugs, psychotropic substances and precursors, as well as control over their circulation', the 'List of narcotic drugs whose circulation in the Republic of Uzbekistan is prohibited' (List I), the 'List of narcotic drugs whose circulation in the Republic of Uzbekistan is restricted' (List II), and the 'List of psychotropic substances whose circulation in the Republic of Uzbekistan is restricted' (List III) were approved. According to this Decision, synthetic cannabinoids and synthetic stimulants are included in List I, synthetic opiates in List II, and synthetic benzodiazepines in List III.

NPS Spread in Uzbekistan

According to statistical data, synthetic cannabinoids and synthetic cathinones predominate in Uzbekistan. Thus, in 2020, there were 22 patients with synthetic cannabinoid use registered by drug treatment organisations, versus seven patients who reported use of synthetic cathinones. However, in 2021, the numbers increased, with 25 patients registered as using synthetic cannabinoids and 17 using synthetic cathinones. However, the prevailing majority of registered patients with substance use disorders (SUDs) use several types of psychoactive substances, such as marijuana, heroin, anasha, hashish, etc., combining them with NPS (mephedrone, alpha-PVP, 'spice').

Suicidal Behaviour and NPS Use in Uzbekistan

NPS use can lead to a range of psychiatric disorders, including depression, anxiety, and psychosis, which in turn increase the risk of suicidal behaviour. The effects of NPS are often unpredictable due to their unknown composition and the concentration of active ingredients, making them particularly dangerous. In Uzbekistan, where family ties and social support are traditionally strong, suicidal behaviour can be particularly stigmatised, making

it difficult for people suffering from the effects of NPS use to find help and support.

Addressing the problem of suicidal behaviour associated with NPS use in Uzbekistan requires a comprehensive approach that includes both measures to reduce the availability and popularity of these substances and to improve the mental healthcare and support system for those at risk. The key aspects of this work encompass education and prevention, improvement of legislation, development of the healthcare system, and social assistance. In Uzbekistan, there is a need to increase public awareness of the risks associated with NPS use through educational programmes and media campaigns. Enhanced control over the distribution of NPS is also needed, through legislative and regulatory measures. It is extremely important to establish and expand specialised services for addiction treatment and to provide psychological assistance to individuals demonstrating suicidal behaviour. On the agenda is the development of programmes for social support to reduce stigma and assist in the social integration of people facing mental health problems.

Barriers to Providing Assistance to People with NPS Addictions in Uzbekistan

In Uzbekistan, a model of care for people with SUDs, based on an integrated approach, is being introduced to meet patients' needs for medical, psychological, and social services. The main goal of this model is to improve the quality and effectiveness of therapeutic procedures, expand the range of services provided, and increase the accessibility of treatment and prevention programmes for people who use drugs.

The main components of this model are detoxification, medication-assisted withdrawal, inpatient and outpatient rehabilitation, and anti-relapse therapy. All interventions are carried out in a specific sequence with a gradual transition of patients from hospitalisation to the outpatient phase of treatment. The ultimate goal is the psychological adaptation of patients to a drug-free life and their successful integration into society (Zabransky et al. 2018).

It is evident that while a comprehensive treatment model, including detoxification, rehabilitation, and anti-relapse therapy, is structured to support patients' recovery and reintegration into society, societal attitudes pose significant challenges. The stigma and discrimination associated with

drug addiction not only impede the successful implementation of these healthcare interventions but also obscure the true scope of the NPS issue by deterring families from seeking help or reporting cases. This societal reaction complicates efforts to address the problem effectively, underscoring the need for integrated strategies that also focus on changing public perceptions and increasing awareness about the complexities of addiction and its management.

The primary importance lies in cultural and social barriers: stigma, discrimination, and poor understanding of NPS-related problem. Faced with social stigma around drug addiction and suicidal behaviour, many families may hide substance use and suicide attempts or suicides within the family for fear of judgment or social exclusion. This makes it difficult to accurately record and report such cases. Lack of awareness and understanding of the nature of drug addiction and suicidal behaviour as medical and social problems may lead to the underestimation of these phenomena in society and among healthcare professionals.

Methodological and technical problems include deficiencies in data collection and ambiguity in criteria used to classify NPS in forensic and clinical practices. Health and social care systems may have difficulty collecting, processing, and analysing data on drug addiction and suicidal behaviour due to insufficient funding, training, or technical capacity. The lack of uniform criteria for classifying NPS, suicide attempts, and suicides can lead to ambiguity and inaccuracy in reporting and statistics.

Legal and regulatory challenges consist of legal stigma, a lack of specialised programmes and services, and insufficient outreach by community organisations and NGOs to this vulnerable population. In conditions where drug addiction is perceived more as a crime than as a health problem, people who use NPS may avoid seeking medical help for fear of legal prosecution, which reduces the likelihood of seeking medical, social, and psychological help, and also precludes prevention measures. Limited drug treatment and suicide prevention programmes, as well as a lack of specialised support services for people who use NPS, increase the risk of undetected and underreported suicidal behaviour in this group.

The situation regarding the use of NPS in Uzbekistan requires consideration by society, healthcare professionals, and government agencies. Only through joint efforts based on education, prevention, and access to quality medical care and support will it be possible to significantly reduce the risk level of NPS consumption and promote the healthy and safe development of society.

Government Measures

In order to combat the illicit trafficking and abuse of pharmaceuticals, as well as to improve the regulation concerning the handling of potent substances, Presidential Resolution No. PP-4438, dated 6th September 2019, ‘On strengthening measures to prevent illicit trafficking in pharmaceuticals’ was adopted, which is supported by Resolution of the Cabinet of Ministers, No. 818, dated 27th September 2019, ‘On regulating the circulation of potent substances in the Republic of Uzbekistan’ (National Information-Analytical Center on Drug Control under the Cabinet of Ministers Republic of Uzbekistan 2022). The resolution introduces a regulatory control list for managing potent substances with addictive potential, including Zaleplon, Pregabalin, Tropicamide, and Cyclopentolate.

Since January 2000, the Law of the Republic of Uzbekistan ‘On Narcotic Drugs and Psychotropic Substances’ has been enacted, which regulates public relations in the sphere of trafficking in narcotic drugs, psychotropic substances, and precursors and aims to counter their illicit trafficking, protect the health of citizens, and ensure state security. The anti-drug strategy is carried out by implementing long-term comprehensive programmes. In June 2016, by decision of the State Commission for Drug Control, the Programme of Comprehensive Measures to Combat Drug Abuse and Illicit Trafficking for 2016–2020 was approved. The main goals and objectives of this programme were: increasing the efficiency of government agencies in identifying and suppressing illicit drug trafficking and related offences; improving the quality of drug treatment services through the introduction of modern technologies for prevention, treatment, and rehabilitation of persons with SUDs; improving legislation in terms of combating illicit drug trafficking, and taking into account the provisions of the international treaties of the Republic of Uzbekistan; improving anti-drug propaganda and enhancing healthy lifestyle skills in society; and strengthening and developing cooperation with interested states and international and foreign organisations (Zabransky et al. 2018).

The National Information and Analytical Center for Drug Control under the Cabinet of Ministers of the Republic of Uzbekistan (NIACDC), which has been in operation since November 1996, is a body created to combat drug trafficking and fulfil international obligations in this area. It is part of the State Drug Control Commission and operates on a permanent basis. This body is responsible for the development of the strategy and main direction of the state drug control policy, and for the preparation of

proposals for draft state programmes and interstate documents regarding cooperation in the field of drug control. The NIACDC prepares analytical materials and proposals for the government and the State Commission for Drug Control, and collects, analyses, and provides information on the drug situation in the country and abroad. It facilitates cooperation with other countries in the field of drug control, as well as the exchange of information, and compiles annual reports for the UN on the implementation of drug control conventions. The body plays a key role in studying and disseminating experiences in prevention and the fight against drug trafficking by providing assistance and support to government authorities. The NIACDC also determines the amount of financial resources allocated for anti-drug policies.

International Cooperation

With the active participation of the NIACDC and the support of international structures and partner countries, including the Uzbek–American cooperation, the provisions of the 2001 Intergovernmental Agreement on Drug Control were implemented, aimed at strengthening the technical base of the relevant authorities of the Republic.

Specialists from the ministries and governmental departments took part in the work of the Shanghai Cooperation Organisation (SCO) as experts. As a result, the draft work plan (2019–2020) for the implementation of the Anti-Drug Strategy of the SCO Member States for 2018–2023 was approved. In parallel, the draft concept and plan for conducting the anti-drug operation ‘Web’ in the territories of the SCO Member States were developed.

Within the framework of the UNODC project ‘Combating Afghan drug smuggling in Uzbekistan through the creation of interdepartmental mobile teams (IMTs)’, seven trainings and courses were organised for members of the IMTs and the Operations Coordination Group (OCG), and the necessary technical equipment and vehicles were provided (ibid.).

Experts from the NIACDC took an active part in the 62nd session of the UN Commission on Narcotic Drugs (CND), held in Vienna from 14th to 22nd March 2019. As part of the CND, at the initiative of the Government of Uzbekistan, on 18th March 2019 a side event was held dedicated to Uzbekistan’s experience in combating the spread of narcotic drugs and regional cooperation in this area. In addition, during the CND meeting, bilateral negotiations were held with the UNODC team. An agreement was reached

with UNODC Director Yuri Fedotov to organise the 54th meeting of the UNODC Subcommittee on Illicit Drug Trafficking in the Near and Middle East in Tashkent (ibid.).

In May 2019, the 11th meeting of the parties to the Memorandum of Understanding on regional cooperation in the field of drug control was held in Tashkent. As a result, the Tashkent Declaration was adopted, aimed at strengthening cooperation in the fight against the illicit trafficking of drugs and precursors, as well as preventing the abuse of drugs and psychotropic substances.

To improve the skills of law enforcement officers both within the country and abroad, practical seminars and trainings have been organised at specialised educational institutions. In 2019, 49 educational and practical events were organised to combat drug trafficking and prevent and treat drug addiction. Overall, 485 governmental officials took part, including 188 officials who took part in events organised abroad.

The Central Asian Regional Information Coordination Centre for Combating Illicit Trafficking of Narcotic Drugs, Psychotropic Substances and their Precursors (CARICC) is one of the most significant projects of the UNODC in Central Asia. Within the framework of its mandate, it facilitates, coordinates, and supports the efforts of countries in the region in the fight against drug trafficking. Participating states are the Republic of Azerbaijan, the Republic of Kazakhstan, the Kyrgyz Republic, the Russian Federation, the Republic of Tajikistan, Turkmenistan, and the Republic of Uzbekistan.

Prevention

In Uzbekistan, high priority is given to the ongoing prevention of drug addiction, which is carried out through several strategic approaches. Primary prevention is implemented within the educational environment, especially in schools, such as through lessons on healthy lifestyles, with a focus on preventing the consumption of tobacco, alcohol, and drugs. In February 2020, the NIACDC and the Ministry of Internal Affairs, together with regional drug control commissions and public, higher, and secondary specialised education authorities, carried out more than 16.7 thousand local preventive events at educational institutions, reaching more than 2.2 million people.

Family prevention includes the development of interaction skills within the family and social skills in both children and parents. Work with risk groups at educational and medical institutions is aimed at preventing drug addiction. Preventive measures are being introduced to target high-risk groups in informal environments, where the likelihood of involvement in drug addiction is higher.

Emphasis is placed on the use of the media and mass promotional work to create awareness of the dangers of drug use and stimulate preventive activity. During the period from 21st to 23rd June 2019, seven football matches were organised in Uzbekistan as part of the 12th round of the Super League championship. This tour was dedicated to countering drugs, with the motto 'We are against drugs'. During the matches, public service announcements were shown, commentators inserted informational messages, and team captains made appeals to combat drug addiction. A drawing competition was also held among students of children's centres in the field of fine arts, with the motto 'We are against drug addiction'. Various art theatres across the Republic have presented performances addressing the problem of drugs and drug addiction.

The regular training of specialists in the field of drug addiction prevention is necessary to maintain a high level of competencies and effective methods for combating this problem (Zabransky et al. 2018).

The NIACDC developed and implemented a road map of preventive activities among young people, including cooperation with doctors, teachers, law enforcement officials, and religious leaders. These events were organised at educational institutions and student dormitories, with the participation of both students and teaching staff. Families with children in disadvantaged conditions were also monitored to provide them with social support and protection from the risks of drug addiction and antisocial behaviour. Specialists from drug treatment institutions conducted lectures and seminars and made appearances in the media as part of the primary prevention of drug addiction among various population groups.

Harm Reduction

Needle and syringe exchange programmes exist in every country around the world. The number of needle and syringe exchange programmes has remained fairly stable in recent years. The number of contacts with IDUs and the number of syringes distributed has increased over time in Kazakhstan

and Uzbekistan, the two countries for which data are available going back to 2002.

Although Uzbekistan reports the largest number of sites where sterile injection equipment is available, it has the fewest number of syringe exchanges relative to the number of people who inject drugs (PWID) contacted by harm reduction programmes or the estimated number of PWID (NIACDC/UNODC 2020).

Trust points provide the target group with information and educational services, counselling, exchange of syringes and needles, personal protective equipment, and disinfectants and also, if necessary, refer applicants to receive various types of medical and psychological assistance (from narcologists, obstetricians/gynaecologists, dermatologists, venereologists, therapists, psychologists, etc.) (Zabransky et al. 2018).

UNODC Prevention Programme

The UNODC actively promotes family skills training as a key drug use prevention intervention in Central Asia. The selected programme, Families and Schools Together (FAST), has been tailored to the needs of the region since its introduction in 2010. Over three cycles of implementation in 35 schools in Uzbekistan, Kazakhstan, Kyrgyzstan, Turkmenistan, and Tajikistan, FAST has proven its effectiveness after being culturally adapted. To build on this success, the UNODC plans to introduce another evidence-based family skills training programme, the Strengthening Families Program for Children 10–14 (SFP 10–14), using the existing FAST infrastructure. SFP 10–14 has been rigorously evaluated in randomised control trials and health services studies and consistently demonstrates its ability to reduce substance abuse and delinquency risks by strengthening family relationships (UNODC 2022).

The Central Asia Drug Action Programme in Uzbekistan

The Central Asia Drug Action Programme (CADAP) represents the continuity of EU policy and long-term engagement with Central Asian partners to further strengthen drug demand reduction policies. The programme is implemented by a Consortium of the Netherlands, the Czech Republic, Poland, and Germany, together with the German Society for International Co-

operation (GIZ), with financial support from the European Union. Since its launch in 2003, various phases of the EU-funded CADAP programme have supported the governments of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan in implementing strategies and measures to reduce drug demand, promote prevention initiatives, and improve public treatment services. The new 7th phase, with a total budget of EUR 6.8 million, intends to continue efforts to develop integrated and evidence-based drug policies and improve access to quality drug demand reduction initiatives for vulnerable groups, following gender and human rights principles (CADAP 2024). Under the 7th phase of CADAP, a wide range of activities are planned for Uzbekistan: the development of a drug control roadmap; technical support for policymakers and partners; improvements to the collection, production, and dissemination of data relevant to targeted studies; technical support for toxicology laboratories; and the development of prevention and treatment programmes in accordance with European standards.

Conclusion

Since 2021, the number of drug-related crimes has increased noticeably in Uzbekistan, especially in the city of Tashkent. The internet is now widely used for advertising and selling drugs. Cases of drugs being manufactured locally have been discovered. The drug control system includes law enforcement measures and medical assistance for drug addicts. However, it is necessary to continue to improve cooperation between various structures and improve legislation to combat drugs more effectively.

The increase in the number of persons registered as users of synthetic cannabinoids and cathinones in Uzbekistan from 2023 to 2024 indicates a growing problem of drug addiction in the country. In particular, increased consumption of synthetic substances may lead to an increase in the incidence of mental disorders and suicidal behaviour.

To solve the problem, an integrated approach is required, including educational programmes, the improvement of legislation, and the development of the healthcare system and social support services. Striving to reduce stigma and increase awareness of the dangers of synthetic drug use among the population plays a key role in this process.

However, there are various barriers that make it difficult to provide help and support to people who use synthetic substances in Uzbekistan, such as

stigma, a lack of specialised programmes, and technical problems in data collection.

Solving the problem of synthetic drug use and suicidal behaviour requires concerted efforts on the part of society, government agencies, health professionals, and public organisations. Only through joint efforts can these negative trends be effectively addressed in order to ensure a safe and healthy future for the citizens of Uzbekistan.

The effective work of the NIACDC and CARICC indicates a strong willingness to cooperate and exchange experiences with other states in the region in the fight against drug trafficking.

Such initiatives and cooperation in the field of combating drugs are important steps in the implementation of the anti-drug strategy and contribute to ensuring the safety and well-being of the people of Uzbekistan.

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5. New Psychoactive Substances in the Republic of Tajikistan: The Latest Developments, Challenges, and Solutions

Naimdzhon Malikov, Vladimir Magkoev

Understanding the Drug Dynamics: National Influences on Tajikistan's Drug Scene

The Republic of Tajikistan is a country located in the southern part of the Central Asian region. Tajikistan is landlocked, and more than 90% of its territory is mountainous. The country has a land area of 143,000 km² and a population of more than ten million people (Figure 1).

Tajikistan shares its borders with several countries. To the south, it borders Afghanistan over a distance of 1,356 km; to the east, it has a 519-km boundary with the People's Republic of China; to the north-east, it stretches 630 km adjacent to the Kyrgyz Republic; and to the north and west, it extends 910 km alongside the Republic of Uzbekistan. The extensive southern border with Afghanistan, a country known for its significant production of illegal drugs such as opiates and cannabis, greatly influences the drug situation in Tajikistan. Tajikistan was ranked eleventh among the countries with the highest volume of opiate seizures in 2020 (UNODC 2022).

More than two-thirds of the country's residents (72.9%) live in rural areas of Tajikistan and are employed in agricultural production. Economically, the country belongs to the category of low-income countries. Children under 15 years old make up more than a third of the total population (33.9%). In 2020, per capita healthcare expenditure was 70 USD, accounting in total for 8% of the GDP. Total healthcare costs amounted to 6,865,000,000 somoni (more than USD 628 million), with 1,806,000,000 somoni (more than USD 165 million) covered by the state budget, accounting for 26.3% of the total costs. Government spending on healthcare is among the lowest in Central Asia (WHO Regional Office for Europe 2020).



Figure 1: Map of the Republic of Tajikistan (www.infoplease.com)

In Tajikistan, the foundation of drug policy rests on the Triune UN Conventions ratified in 1961, 1971, and 1988. This framework mandates state regulation of the distribution of substances included in the National List of Narcotic Drugs, Psychotropic Substances, and Precursors. Government officials frequently address the challenge of drug trafficking. However, the management of drug addiction treatment and the prevention of psychoactive substance use falls under the drug treatment services, which receive inadequate attention in the public sphere. The main strategic focus of the drug policy remains on curbing drug availability, rather than on demand reduction or harm minimisation strategies.

Tajikistan has established the Drug Control Agency under the President of the Republic of Tajikistan (DCA), an authoritative entity responsible

for setting national drug policy and coordinating the efforts of various law enforcement bodies in this sector. As a law enforcement agency, the DCA primarily concentrates its efforts on diminishing the supply of drugs.

Several factors impact the drug landscape in Tajikistan. Firstly, its geographic position plays a crucial role; Tajikistan is situated to the north of Afghanistan, which is well-known for its illegal production of drugs such as opiates and cannabinoids. Moreover, the drug scenario is shaped by socio-political shifts. After gaining independence in 1991, Tajikistan experienced a six-year civil war involving various political factions. Civil strife has triggered significant migration processes: tens of thousands of Tajikistan residents fled to Afghanistan to save themselves and their families from the horrors of civil war, and a comparable number of citizens were forced to leave their homes and became internally displaced persons within the country. Before the Republic of Tajikistan gained independence in 1991, the country was home to a significant number of people from various ethnic groups. However, most of them later left Tajikistan and moved to other countries formed after the dissolution of the Soviet Union, such as the Russian Federation, Ukraine, and Kazakhstan. It is difficult to estimate the number of people of non-indigenous nationalities (Uzbeks, Turkmens, Kyrgyz, Kazakhs, Russians, etc.) who emigrated from Tajikistan during the years of instability. According to the United Nations Refugee Agency's (UNHCR) data, by 2006, there were no longer any internally displaced persons in Tajikistan, and virtually all Tajik refugees had been repatriated from Afghanistan (Nazarshoeva 2019). Since gaining independence and up to the present, the country has experienced a phenomenon known as labour migration. According to various sources, up to one million working-age people are employed outside of Tajikistan, mostly in the Russian Federation. All of the aforementioned factors, especially the political unrest, combined with the long border with Afghanistan, have facilitated a sharp rise in the trafficking of opium and cannabis-derived drugs through Tajikistan to Russia and Europe. Consequently, this has led to higher drug availability within Tajikistan's borders, thereby increasing domestic drug usage.

The Emergence of New Psychoactive Substances: Transformations in Drug Markets

Since 1996, there has been a notable surge in new cases of opioid addiction recorded by national drug treatment services. The multiple increase in new cases of opioid dependency registration has been coupled with a rise in the injectable consumption of opioids. Over the last decade, injectable heroin use became a driver of HIV spread. According to data presented in the country's report on progress made in combating the HIV epidemic, in 2009, the share of injection transmission in new HIV cases among men was 71.6% (Republican Center for Prevention and Control of AIDS 2015). In response to this situation, programmes aimed at preventing HIV infection began to be developed in the country, primarily focusing on working with people who use injectable drugs. These programmes are funded by international donor organisations. Needle and syringe exchange programmes and opioid overdose prevention strategies were widely implemented. Starting in 2010, in order to prevent the spread of HIV infection among people who inject drugs (PWID) in Tajikistan, opioid substitution therapy programmes using liquid methadone began to be implemented.

As the socio-political climate in Tajikistan stabilised and governmental functions normalised, the availability of traditional plant-based narcotics started to decline. Concurrently, synthetic drugs increasingly emerged on the black market. Synthetic psychotropic drugs first appeared in Tajikistan in 2006, when a single pill was confiscated. Initially, these instances of seizure were sporadic. However, in the last five years, the capture of such drugs has become a regular occurrence, raising concerns (Drug Control Agency under the President of the Republic of Tajikistan 2020). From 2013 to 2020, a total of 68,787 tablets and approximately 82 kilograms of synthetic drugs were seized from illegal trade. Over the past five years, the annual seizure figures have consistently ranged between 10,000 and 15,000 tablets, which is concerning. The primary substances confiscated during this period include 3,4-Methylenedioxymethamphetamine (MDMA), methamphetamine, alprazolam, and phenobarbital, among others. According to the Drug Control Agency, in 2018 alone, authorities confiscated 15,880 tablets of various psychoactive substances. During a single operation by the Anti-Drug Agency in February 2020, 10 kg of methamphetamine were seized from citizens of the Islamic Republic of Afghanistan (Firuz 2020).

The national drug control strategy of Tajikistan for 2021–2030 highlights recent trends in the illegal drug trade, including the rise of online transac-

tions that do not involve physical hand-offs. Additionally, there has been an increase in the illegal importation of new types of synthetic drugs and psychotropic substances into Tajikistan from abroad. This has coincided with a growing demand for drugs among the population, particularly among young people, which has led to a rise in non-medical use of these substances (Drug Control Agency under the President of the Republic of Tajikistan 2022).

According to the 2021 review of the drug situation in the Republic of Tajikistan, an analysis of seized prohibited substances reveals a rise in synthetic substance seizures across the Central Asian region. In 2021, Tajikistan's competent authorities confiscated over 101 kg of methamphetamine, marking a significant increase from previous years. Furthermore, in 2021, authorities in Tajikistan seized 5,088 MDMA tablets, 645 diazepam tablets, 418 phenobarbital tablets, 287 pregabalin tablets, and 15,099 alprazolam tablets from illegal trafficking (Figure 2). The total number of psychotropic tablets seized amounted to 21,537, nearly tripling the quantity confiscated in 2020 (Drug Control Agency under the President of the Republic of Tajikistan 2022).



Figure 2: Tablets containing MDMA seized in 2021 (Drug Control Agency under the President of the Republic of Tajikistan)

According to DCA, the majority of methamphetamine available on Tajikistan's black market originates from Afghanistan, primarily in crystalline forms and as tablets. Recent seizures indicate a significant increase in methamphetamine production within Afghanistan, suggesting that Afghan traffickers are capturing a larger share of the regional and possibly global methamphetamine market. In 2020, methamphetamine comprised a sub-

stantial portion of the total drug seizures in many Afghan provinces. The data of the United Nations Office on Drugs and Crime (UNODC) confirm an increase in methamphetamine production in Afghanistan (Figure 3).

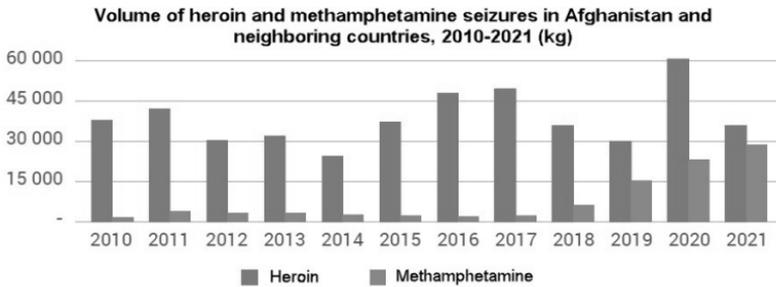


Figure 3: Volume of heroin and methamphetamine seizures in Afghanistan and neighbouring countries, 2010–2021 (kg) (UNODC 2023)

As noted in the UNODC’s brief research review ‘Understanding Illegal Methamphetamine Production in Afghanistan’, a significant portion of methamphetamine is produced using the plant *Ephedra distachya*, which grows freely on the mountain slopes of Afghanistan and is used as a raw material for the extraction of ephedrine—the substance from which methamphetamine is derived through simple chemical reactions (UNODC 2023).

In 2021, the majority of psychotropic substances seized in Tajikistan were methamphetamine, received by the DCA laboratory for analysis mostly in crystalline forms and as tablets. The wholesale seized methamphetamine typically appeared as crystals, ranging from 0.4 cm to 5.0 cm in size, while retail packages contained the substance in a crushed form. The seized methamphetamine tablets varied widely in both appearance and methamphetamine content. In contrast, the seized MDMA tablets displayed less variation. In recent years, there has been a noticeable increase in the seizure of pharmaceutical substances involved in illicit trafficking, particularly psychotropic substances like alprazolam and pregabalin. Tramadol, a potent controlled substance, ranks as the next most frequently seized drug. Seizures of diazepam and phenobarbital are less common. Additionally, DCA laboratory conducts expert testing on medications such as zopiclone (marketed under names such as Somnol, Sonlife, and Megas-

on-7.5) and tropicamide (branded as Midax) (Drug Control Agency under the President of the Republic of Tajikistan 2022).

According to the Republican Clinical Center for Narcology (RCCN), there has been a recent trend towards reduced use of natural opiates among drug users, which they attribute to these substances becoming less available. In response, the use of pharmacy opioids like tramadol and Tramal, as well as other medications such as tropicamide and pregabalin, is on the rise (Latypov, 2020). Additionally, the RCCN notes an increase in the number of individuals seeking help for the use of psychostimulants, particularly those from the amphetamine and methamphetamine groups (Table 1).

Table 1: Patients with substance use disorders (SUDs) registered by drug treatment institutions of the Republic of Tajikistan, by types of drugs, 2017–2024 (Malakhov, 2024)

Substances	2017	2018	2019	2020	2021	2022	2023	3 months of 2024
Heroin	5,505	4,705	4,404	3,714	3,385	2,577	1,359	1,242 (30.5%)
Opium	816	778	775	795	737	729	731	729 (17.9%)
Other opioids (for opioid substitution therapy)							600	604 (14.8%)
Cannabinoids	319	309	332	332	343	351	408	391 (9.6)
Two or more substances	307	267	264	258	282	690	1,014	1,056 (25.9%)
Psychostimulants, sedatives, and hypnotics					2	34	48	51 (1.3%)
Total	6,947	6,059	5,375	5,099	4,749	4,381	4,16	4,073

Treatment statistics also show a decrease in the number of individuals under dispensary observation at drug treatment facilities in the Republic of Tajikistan.

In addition, according to the RCCN, in recent years there has been a trend towards a decrease in injection drug use (Figure 4) and a slight decrease in the number of people using natural opiates (Table 1).

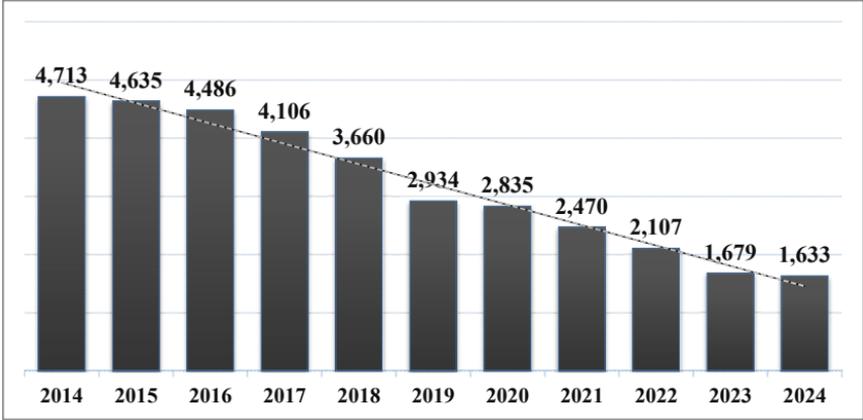


Figure 4: Dynamics of the number of people who inject drugs in the Republic of Tajikistan, 2014–2024 (Malakhov, 2024)

The RCCN statistics, as shown in Table 2, corroborate the trend of increased requests for medical examinations related to drug use. The data indicate a rise in the instances where MDMA and methamphetamine residues have been identified in the biological fluids of people undergoing medical tests.

Table 2: Psychoactive Substances Identified in Specimen Tests at RCCN, 2019–2023

Substances	2019	2020	2021	2022	2023
Opiates	62	50	69	60	38
Cannabinoids	707	709	1,153	844	952
Use of two or more substances	71	94	211	172	201
MDMA/ methamphetamine				43	92
Barbiturates, benzodiazepines, and phencyclidine	9	22	32	23	-

Specialists from RCCN, commenting on the number of registered cases of people using synthetic psychoactive substances, agree that the actual number of such cases far exceeds official data. They believe this is due to the fact that most synthetic psychoactive substances, such as methamphetamines, do not cause severe addiction. Withdrawal symptoms associated with these substances are limited to psychological problems (drowsiness, fatigue, and mood swings) and rarely require medical intervention. Most registrations of people using synthetic psychoactive substances at the RCCN are linked to their detention by law enforcement during the buying and selling of these substances, as well as during medical examinations of drivers for substance abuse. The situation as regards the use of pharmaceutical drugs is even more complicated. The specialists at RCCN lack testing systems to detect many pharmaceutical drugs that are subject to abuse, hence people using these substances remain undetected.

In 2024, a survey was carried out with 100 participants from the programme of opioid substitution therapy (OST) at the RCCN, focusing on the use of new psychoactive substances (NPS) and pharmaceuticals. The findings indicated that the most commonly used drugs among the respondents were Pregabalin, reported by 82 participants, cannabinoids by 77, the synthetic opioid Tramadol by 58, and the psychostimulant amphetamine by 22. Meanwhile, 83 respondents believed that there is a trend towards a decrease in the use of heroin, and 68 respondents believe the same for opium (Sharipov 2024).

A community-led assessment conducted in 2023 on HIV risks, interactions with health services, and the unmet needs of people using synthetic and new psychoactive substances in Kyrgyzstan, Kazakhstan, and Tajikistan revealed several key findings for Tajikistan. The study highlighted that pharmaceutical drugs such as tramadol, Midax, Moparol, Lyrica, tropicamide, and Ropitax are the most commonly used substances among respondents. Stimulants like methamphetamine and mephedrone are also used, though less frequently, due to their higher costs. The report notes that pharmaceutical drugs are typically consumed to restore a 'normal state'. In Tajikistan, these substances are obtained either through pharmacies or via direct hand-to-hand transactions. Notably, none of the respondents reported purchasing substances through online applications. The use of pharmaceutical drugs via injection is common, and many people switch to smoking methods due to the absence of veins, often using a light bulb as a smoking device. The transition back to injection is often justified by users as being more 'economical' in terms of substance consumption.

Behaviourally, the use of NPS is predominantly nocturnal and frequently associated with increased sexual activity (Moroz/Plotko et al. 2023).

Evidence from both healthcare professionals and people who use NPS suggests that patterns of use vary depending on the substance itself. Our own contacts among employees of the drug treatment system, public organisations, and people who use psychoactive substances themselves have helped us identify several usage patterns for NPS and pharmaceutical drugs in the Republic of Tajikistan.

Tramadol, also known as Tramal, is a synthetic opioid that is part of the opioid analgesic group and is used medically for severe pain syndromes. It brings about pain relief, a sense of calm, and mood improvement. In Tajikistan, Tramadol is listed as a potent substance. This medication can only be purchased at a pharmacy with a prescription. However, people who use this drug find various ways to acquire it. Typically, they use personal, informal connections and overpay for the illegally acquired medications. Typically, consumers take it orally, with doses ranging from two to ten 50-mg tablets at a time, often combined with pregabalin. It is also taken with alcohol or used to enhance the effects of methadone for a euphoric effect. The combined use of these drugs potentiates and prolongs their effects. Tramadol and pregabalin can also be used alone, in which case the dosage of the drug taken at one time increases. Tramadol can also be taken intranasally as a crushed powder. The main harmful consequence of non-medical use of tramadol is the development of opioid dependence. Additionally, respiratory depression can occur in the event of an overdose, especially if tramadol is used in combination with central nervous system (CNS) depressants.

Pregabalin is a medication used to treat certain forms of epilepsy, pain syndromes, and anxiety disorders. In high doses, the drug has a euphoric effect. Additionally, it enhances the euphoric effects of other psychoactive substances (central nervous system depressants), when used together. Like tramadol, it is considered a potent medication and should be dispensed strictly by prescription. To achieve a euphoric effect, it is usually taken orally in amounts of 600 mg or more. Pregabalin is most commonly used in combination with other central nervous system depressants.

Methamphetamine, imported from Afghanistan, is common on the black market in Tajikistan. It appears either as crystals or as a white powder obtained by grinding the crystals. The most common method of using methamphetamine in Tajikistan is by inhaling the vapours of the substance. To do this, a small amount of the substance is placed in a glass flask from

a car lamp or a previously emptied glass ampoule of medicine and heated with a lighter; the vapours are then inhaled through a straw. The powder form is less frequently used by sniffing it into the nose.

Tropicamide, a liquid drug that is used in ophthalmic practice and is similar in action to atropine, is used to diagnose the condition of the fundus by instilling it on the conjunctiva of the eye. Typically, to obtain a euphoric effect, users take doses that are significantly higher than therapeutic doses, for example, up to 10 ml of a 1% tropicamide solution intranasally during the day. Some users also inject the drug. It is sometimes used by drug addicts to hide the use of opiate substances by dropping it into the eyes, or to enhance the effect of other narcotic or psychotropic drugs when used simultaneously. It should be particularly noted that tropicamide in doses commonly used for recreational purposes causes the destruction of red blood cells, which in turn leads to hypoxia of all organs and tissues of the human body. The brain is primarily affected by this. Even relatively brief systematic use of tropicamide to achieve a euphoric effect can cause various mental disorders, ranging from neurotic to psychotic and even psycho-organic syndrome (dementia).

MDMA is available on the black market in tablet form and its usage patterns in Tajikistan are no different from those in other countries. It is typically a 'weekend drug' and people who use only MDMA rarely come to the attention of addiction specialists. Among the harmful effects of use is the 'swing effect'—the manifestation of symptoms opposite to those typical of MDMA intoxication after the effects of the substance wear off. Dehydration, altered consciousness, and perception disorders (illusions and hallucinations) are also possible.

Alpha-pyrovalerone and **alpha-methylfentanyl** are substances with a suspected presence on the black market in Tajikistan, but reliable information about the patterns of their use was not possible to collect.

Diphenhydramine, a non-selective antihistamine, is very popular among people who use psychoactive substances, including participants in the opioid agonist maintenance therapy (OAMT) programme. The most common pattern of use is the injection of a solution prepared independently from tablets, typically using ten tablets of 50 mg each. This enhances the euphoria from other psychoactive substances, including methadone.

Zopiclone, a hypnotic drug used orally, is employed to potentiate the euphoric effects of other CNS depressants like methadone and tramadol.

Amitriptyline, a tricyclic antidepressant with a sedative component, is used by some participants in the OAMT programme in combination with methadone to achieve euphoria.

The most obvious harmful effects of using the aforementioned drugs are primarily linked to their method of administration. Experts note that individuals who have previously injected opioids tend to inject various other substances, even those available in tablet form. To do this, tablets are crushed into a powder, mixed with water, and then drawn into a syringe through a cotton filter. This method does not ensure complete sterility or the removal of solid particles, frequently resulting in medical complications such as abscesses, phlebitis, and trophic ulcers. Moreover, this practice increases the risk of contracting blood-borne infections such as HIV and viral hepatitis.

The use of NPS with psychostimulant effects can lead to high-risk behaviours such as having unprotected sex, heightening the risk of HIV and sexually transmitted infections (STIs). CNS stimulants may also trigger the development of psychosis, particularly under frequent use or high doses.

The general toxic effect of consuming large quantities of the aforementioned substances can lead to various somatic pathologies, including significant weight loss or even cachexia, toxic liver damage, renal dysfunction, and issues with the gastrointestinal tract. These effects underscore the severe health risks associated with the misuse of these drugs.

In the study entitled 'Risks of HIV infection, interaction with health services, and unmet needs of people using synthetic and new psychoactive substances in Kyrgyzstan, Kazakhstan, and Tajikistan', all participants initially described benefits such as increased energy, a more stable mood, and improved physical condition after using NPS. Many also reported heightened sexual activity and a state of euphoria, particularly during the early months of use.

However, the initial positive effects were often short-lived. Months after beginning to use synthetic substances, as well as during periods between uses, many respondents reported experiencing severe negative mental health effects. These included psychosis, paranoid thoughts, depression, sleep disturbances, and irritability. A significant number of those surveyed also mentioned enduring episodes of psychosis, chronic sleep disturbances, depression, and suicidal thoughts.

These findings highlight the complex dual nature of NPS use—while they may provide temporary relief or pleasure, they also pose substantial

risks to mental health over time, potentially leading to serious, long-term psychological issues (Moroz/Plotko et al. 2023).

Over the last three decades, both healthcare systems and civil society organisations have adapted to the escalating opioid crisis, primarily involving heroin. Medical institutions have established comprehensive standards and protocols for treating opioid dependency. These include maintenance therapies using opioid agonists such as methadone and buprenorphine, and strategies for preventing and managing opioid overdoses. Furthermore, non-governmental organisations have enhanced their focus on services for individuals using injectable drugs, historically dominated by opiates. This has been crucial due to the strong association between injectable drug use and the HIV epidemic, prompting nearly all international donor activities in Tajikistan to concentrate on opiate-related programmes. These efforts encompass drug demand reduction and harm reduction strategies tailored to injectable drug use. Collaborative frameworks have been developed between governmental and non-governmental bodies to offer centralised services addressing opiate use issues. This includes a referral system, coordinated opioid substitution therapy across healthcare and penal institutions, and integrated treatment services for HIV, tuberculosis, and addiction under a unified service model. Between 2019 and 2022, an evaluation of Tajikistan's response to drug-related challenges confirmed that these interventions align with international standards set by the UNODC and the World Health Organization (WHO).

The current system is inadequate in addressing the challenges posed by the widespread use of NPS. Both addiction services and civil society organisations lack a clear strategy for responding to this new situation, and their current services do not meet the needs of NPS users, which are not yet fully understood. There are no established treatment protocols for disorders related to NPS and pharmaceutical drug use in the country, nor are there standardised harm reduction measures for public organisations.

Specialists in addiction treatment, the civil sector, and the community are aware of the NPS and pharmaceutical drug problem. The RCCN is actively discussing this issue and potential responses. Some civil organisations express their readiness to address the rising use of NPS and pharmaceutical drugs. However, they face obstacles due to a lack of comprehensive understanding of the problem and the needs of NPS and pharmaceutical drug users, as well as the absence of standardised protocols and procedures tailored to these individuals.

Some non-governmental organisations (NGOs) traditionally working with drug use problems (SPIN Plus, DINA, Marvorid, and SVON Plus) are trying to take the initiative and develop activities in this area. However, this activity is not supported by donors. This is due to the fact that donors working in Tajikistan are also focused on opioid-related programmes.

The drug landscape in the country is evolving, prompting responses from society and relevant authorities. In response to new drugs appearing in Tajikistan, legislative updates are implemented. While the legislation of the Republic of Tajikistan does not specifically mention ‘new psychoactive substances’, the procedures allow for adaptability in addressing these substances.

When needed, amendments are added to the National List of Narcotic Drugs, Psychotropic Substances and Precursors, along with the list of potent substances.

Since 2013, NPS such as piperazines and benzodiazepines have been scheduled in the national list (UNODC 2017).

Recently, drugs like Pregabalin and Tropicamide were added to these lists, establishing a necessary legal foundation for controlling drugs and combating the illegal trafficking of new psychoactive substances.

In 2023, the Eurasian Women’s AIDS Network conducted a study entitled ‘HIV Risks, Engagement with Health Services, and Unmet Needs Among Users of Synthetic and New Psychoactive Substances in Central Asia, with a Focus on Kyrgyzstan, Kazakhstan, and Tajikistan’. This study aimed to shed light on the challenges faced by individuals using these substances in the region. While the findings offer valuable insights that can inform future programmes addressing these issues, it’s important to consider the study’s limitations, particularly regarding its applicability to Tajikistan. One significant limitation is that the study was restricted to the capital city, and only a small number of respondents (five individuals) were included in the survey. These respondents were primarily sourced through an organisation focused on PWID, typically opioids. It’s evident that the sample lacked randomisation, rendering the results unable to represent the full spectrum of characteristics and needs among NPS users. Instead, they likely reflect a subset of individuals with a history of opioid use. Expert opinions in addiction medicine, corroborated by data from substance use assessments at the RCCN, suggest that a significant portion of NPS users have not engaged with addiction services or experimented with other substances.

To gain more pertinent insights into the collective needs and requirements of all NPS users, a broader study employing a snowball methodology across at least two regions in the country would be necessary. This approach would allow for a more inclusive and representative sampling, capturing the diverse experiences and challenges faced by individuals within this population.

Conclusions and recommendations

The dynamics of the drug situation in the Republic of Tajikistan are changing due to the increased production of methamphetamine in Afghanistan. This shift is leading to a reduction in the use of natural opiates and a rise in the use of NPS and pharmaceutical drugs for non-medical purposes. The trends likely to develop in Tajikistan's drug situation include a greater illegal influx of psychotropic substances, especially methamphetamine from Afghanistan, and an increase in the number of people suffering from disorders related to the use of NPS and pharmaceutical drugs.

Currently, professionals do not have a clear picture of the situation related to NPS and pharmacy drug use, especially among young people who have never sought help from medical drug treatment or community organisations.

Decision makers, both nationally and internationally, are not sufficiently aware of the problems associated with NPS and pharmacy drug use and therefore do not adequately assess their magnitude.

Both healthcare structures and public organisations are currently unprepared for this evolving challenge. To address this, it is recommended to create guidelines and standards for healthcare and public organisation workers on how to manage disorders related to NPS and pharmaceutical drugs. Additionally, these tactics should be incorporated into training programmes for healthcare professionals. It is also crucial to identify and engage donor organisations interested in funding this specific area of work.

In order to design a comprehensive prevention and intervention programme for the problem of NPS and pharmacy drug use, it would be advisable to conduct a study aimed at assessing the needs of users in two or more regions of the Republic of Tajikistan.

It would be advisable to conduct activities aimed at raising awareness among decision makers and the general public on issues related to the problem of NPS and pharmacy drug use.

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6. Unpacking New Psychoactive Substances in China

Haifeng Jiang, Yifan Xu

I. An Overview of New Psychoactive Substances (NPS)

1. The Concept of NPS

The term ‘new psychoactive substances’ (NPS) refers to psychoactive substances that are not controlled by the United Nations’ 1961 Single Convention on Narcotic Drugs or the United Nations’ 1971 Convention on Psychotropic Substances but possess abuse potential and pose a public health threat. These psychoactive substances typically share the following characteristics: (1) Their chemical structures can be designed and synthesised artificially to produce psychoactive and pharmacological effects similar to or resembling controlled drugs, hence they are also known as ‘designer drugs’; (2) They are not currently included in controlled substance schedules in relevant laws, regulations, and international conventions, hence they are referred to as ‘legal highs’; (3) Some NPS have chemical structures similar to known controlled drugs or are derivatives thereof, hence they are also known as ‘drug analogues’; (4) The majority of NPS are synthesised and studied in laboratories, hence they are also called ‘research chemicals’.

The term ‘new’ does not solely imply NPS’ recent synthesis; in fact, many NPS were synthesised as early as the 1970s or even earlier. Rather, ‘new’ denotes NPS’ recent emergence and abuse within populations. ‘New psychoactive substances’ represents a collective term for new substances posing drug-related risks that have yet to be controlled by international agreements. Upon regulation under domestic law, they acquire legal status as drugs but may still be termed ‘new psychoactive substances’ from a sociological perspective (Ma et al. 2019, p. 1; UNODC 2024).

The classification of NPS is typically based on either their chemical structure or their pharmacological effects. The United Nations Office on Drugs and Crime (UNODC) delineates NPS into nine main classes based on their chemical composition, encompassing synthetic cannabinoids, synthetic cathinones, phenethylamines, tryptamines, aminoindanes, piperazines, phencyclidine-type substances, plant-based substances, and

other substances (UNODC 2024). Additionally, NPS can be categorised into six major groups based on their pharmacological effects, namely synthetic opioids, synthetic cannabinoid receptor agonists, stimulants, dissociatives, classic hallucinogens, and sedatives/hypnotics (UNODC 2024).

2. The Relationship Between NPS and Drugs

According to the Criminal Law of China, drugs are defined as opium, heroin, methamphetamine, morphine, cannabis, cocaine, and other narcotics and psychotropic drugs regulated by the country that have the potential to cause addiction. In order for a substance to be classified as a drug within the context of criminal law, two criteria must be satisfied: firstly, it must be a narcotic or psychotropic drug capable of causing addiction; if it fails to induce addiction, it cannot be categorised as a drug. Secondly, such narcotics and psychotropic drugs must be subject to regulation by the state; if they are not regulated, they also cannot be deemed as drugs. The regulation process involves the relevant national departments issuing documents that specify the types and names of controlled narcotics and psychotropic drugs. For instance, the 'Catalogue of Narcotic Drugs (2013 Edition)' and the 'Catalogue of Psychotropic Drugs (2013 Edition)' announced by the Chinese Drug and Food Administration, the Ministry of Public Security, and the National Health Commission in November 2013 (effective from 1st January 2014) serve as fundamental documents for drug regulation in China. In September 2015, the Ministry of Public Security, the Chinese Drug and Food Administration, the National Health Commission, and the National Narcotics Control Commission (NNCC) issued the 'Administrative Measures on Narcotic and Psychotropic Substances without Medical Use', which expanded the list to include 116 non-medicinal narcotic drugs and psychotropic drugs. On 1st March 2017, an amendment came into effect, adding four additional fentanyl analogues to the list (Ma et al. 2019, p. 3; UNODC 2024).

NPS undergo molecular modifications or reconstructions from existing drugs, resulting in similar or even heightened stimulant or hallucinogenic effects on the human body, thereby fulfilling the first condition outlined (i.e. substances must be narcotics or psychotropic drugs capable of inducing addictive effects). Moreover, whether NPS can be categorised as drugs depends on whether they are regulated by the state. This means that if a substance is not subject to state regulation, then it cannot be deemed a

drug. Statistics indicate that China has regulated over 170 types of NPS and has incorporated fentanyl analogues into the ‘Supplementary List of Controlled Narcotic Drugs and Psychotropic Substances with Non-medical Use’ since 2019. Given that most of these substances lack legitimate medical utility, smuggling, trafficking, transportation, and production of these new psychoactive substances are typically viewed as drug offences (Ma et al. 2019, pp. 3–4).

3. The Global Prevalence of NPS and Public Health Concerns

Given the rapid emergence, intricate classification, and varied legal status of NPS globally, there exists a substantial challenge in terms of public awareness, law enforcement efforts, interception, and regulatory control of NPS worldwide.

NPS can be screened and identified by making subtle chemical modifications or designing entirely new compounds based on controlled substances. Compared to controlled drugs, these NPS exhibit stronger psychoactive effects and higher abuse potential and addictive properties, and they are more likely to induce violent tendencies and aggressive behaviours in users, triggering acute mental disorders such as seizures, agitation, and delusions. Several cases have been reported worldwide where hospitalisation was required due to acute poisoning from the consumption of NPS. Currently, the abuse of NPS is posing a serious threat to public safety and social order. In recent years, there have been profound and intricate changes in the international drug scenarios. Globally, there has been a continuous increase in drug production, variety, and the number of users, perpetuating the widespread issue of drug abuse internationally. In particular, the rapid proliferation of NPS worldwide, with constantly evolving varieties and a multitude of forms, poses a formidable challenge to drug control efforts in countries around the world. Currently, according to a report from the UNODC, as of August 2023, a total of 1,228 individual NPS from 141 countries have been discovered, surpassing the combined count of internationally regulated narcotic drugs and psychotropic substances (UNODC 2023). Compared to traditional and synthetic drugs, NPS often exhibit heightened psychoactive effects and addictive properties, leading to severe detriments to users’ physical health. Prolonged consumption of NPS can induce mental instability and loss of behavioural control, triggering extreme actions such as suicide, self-harm, and violent behaviour, thereby posing significant

real-life hazards and potential threats to societal and public safety (Ma et al. 2019).

Effective control of NPS remains a major challenge for law enforcement agencies around the world. On one hand, the rapid pace of innovation and replacement of these substances is evident, with 72 new psychoactive substances discovered worldwide in 2016 alone. At the same time, 68 NPS have disappeared from the market since 2013. Once a new psychoactive substance is under control, new alternatives emerge quickly through slight chemical modifications. Since most countries' drug control laws tend to list substances individually, with legislative processes taking a long time, many NPS escape international drug control conventions and national drug laws. On the other hand, the forensic scientific research on NPS is still in its early stages. There are numerous gaps in the standards and detection methods required for examination and identification. Additionally, there is a lack of standardised and quantified assessments of their dependence and harmfulness. These factors impede the formulation of control measures and sentencing standards for new psychoactive substances by governments worldwide (Ma et al. 2019, pp. 1–3).

II. NPS in China

1. The Evolution of NPS in China

The current issue of NPS in China has evolved over the last 20 years. It transitioned from the prevalence of ketamine and methcathinone in the early 21st century to the prevalence of synthetic NPS today. In addition, China functions both as a supplier (exporter) and a recipient of these substances.

In 2001, China's National Medical Products Administration classified ketamine as a Class II psychotropic substance. Then, in January 2005, ketamine (including its possible salts and preparations) was reclassified as a Class I psychotropic substance, restricting its production, sale, and purchase to pharmaceutical companies designated by the administration. Despite China's efforts to regulate ketamine and related NPS incidents, ketamine abuse in mainland China has increased steadily since 2000. According to a 2009 report by China's National Centre for Drug Abuse Monitoring, ketamine abuse comprised 0.3% of the total drug abuse and 8.6% of newly added drug users. However, most new drug users tended

to abuse multiple substances, with ketamine rarely used alone but rather in combination with ecstasy and methamphetamine. By the end of 2018, ketamine had become the second most commonly abused synthetic drug in China, trailing only behind methamphetamine (ice) and accounting for approximately 2.6% of all drug users, totalling about 63,000 individuals. The illicit production of ketamine in mainland China began around 2004 and gradually expanded, peaking in 2011 and 2015. Figure 1 illustrates the number of ketamine factories dismantled in China from 2013 to October 2018. It shows that the average number of ketamine factories dismantled was nearly 120 per year from 2013 to 2016, with a decline observed from 2017 onwards (Yang 2020, p. 2).

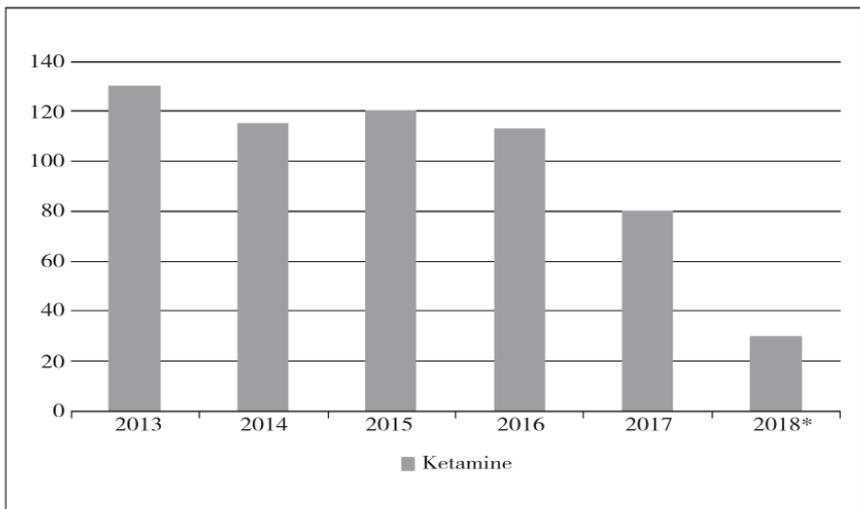


Figure 1: The number of ketamine factories dismantled in China from 2013 to September 2018 (Yang 2020, p. 2).

Figure 2 illustrates the changes in ketamine seizures in China from 2005 to September 2018. There was a steady increase in seizures from 2006 to 2011, peaking at 14.2 tons in 2011. Subsequently, there was a decline to 4.7 tons in 2012, followed by a continuous rebound from 2013 to 2015, reaching a historic high of 19.6 tons in 2015, which accounted for approximately 93% of the total global seizures for that year. Since 2015, there has been a gradual decrease each year. Despite China's intensified efforts since 2008 to combat ketamine production and trafficking, including the regulation of precursor

chemicals such as hydroxylamine and gamma-butyrolactone (GBL) in July 2008 and August 2012, respectively, the situation did not improve until 2016 (Yang 2020, pp. 2–3).

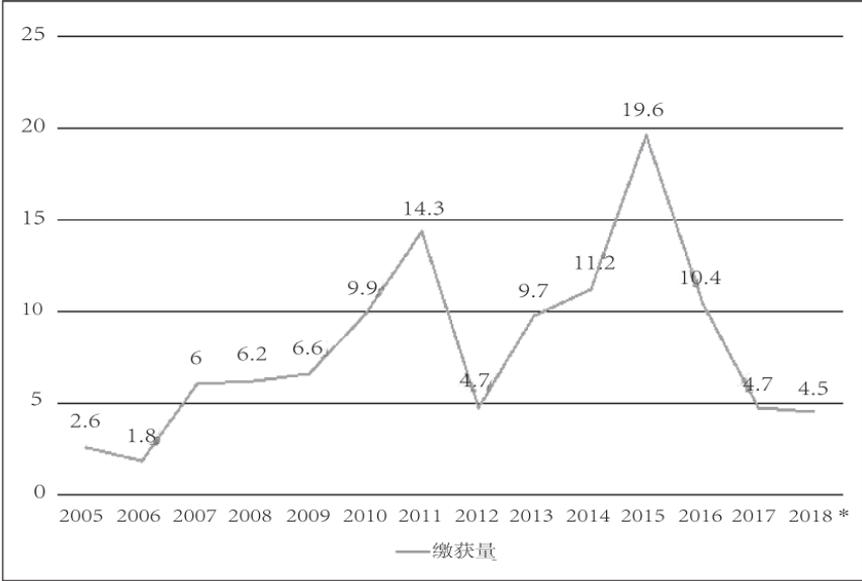


Figure 2: The changes in ketamine seizures in China from January 2005 to September 2018 (Yang 2020, p. 3).

In China, methcathinone abuse was primarily concentrated in Shanxi province since 2010. In one city within this province, coal miners and truck drivers engaged in physically demanding work had been consuming mianer (a substance primarily containing caffeine) since the 1980s to stay awake. This practice later spread to the wider population and became a cultural tradition. Some individuals illicitly added ephedrine to mianer to enhance its effects. In 1999, China introduced regulations governing the management of ephedrine. As China gradually tightened control over ephedrine, obtaining it unlawfully became increasingly challenging. In 2010, Li, a long-time pharmaceutical wholesaler from Anyang, Henan province, operating in a city in Shanxi province, believed due to his pharmacological knowledge that methcathinone could serve as a substitute for ephedrine. Consequently, he illegally procured a batch of methcathinone from a pharmaceutical factory in Tianjin (methcathinone has been classified as a controlled substance

in China since 2005), mixed it with mianer, and sold it under the guise of the latter. This led to an unexpected surge in demand in the market, with consumers responding positively to the taste and potency of mianer laced with methcathinone. In early 2010, the price of methcathinone in the city ranged from seven to eight yuan per gram, increasing to 18 to 20 yuan per gram in late 2010 and eventually reaching approximately 100 yuan per gram at its peak in 2011. Methcathinone inundated the market, and the number of users continued to rise. According to the '2016 National Drug Abuse Monitoring Annual Report', methcathinone abuse cases and the number of methcathinone abuse cases in China surged, with 707 cases in 2016 compared to 246 cases in 2015—a 2.9-fold increase. Of the 707 individuals in 2016, 693 were from Shanxi, constituting 98.0%. In 2017, the aforementioned city in Shanxi province recorded around 3,500 methcathinone abusers, with the abuse spreading to surrounding areas (Yang 2020, pp. 3–4).

To combat methcathinone abuse, in the first half of 2011, under the unified command of the Ministry of Public Security, Shanxi province launched a special rectification campaign, vigorously cracking down on illegal activities involving methcathinone, resulting in a reduction in methcathinone-related crimes in the city from 2011 to 2013. However, from 2014, the number of methcathinone cases and seizures rebounded and increased. After years of severe crackdowns, strict controls, and extensive publicity, the problem of methcathinone abuse in the city has been effectively curbed since 2018 and the rampant spread of methcathinone has been effectively alleviated (Yang 2020, p. 4).

At present, a wide array of NPS has surfaced domestically, with a considerable number of drug incidents involving NPS or nationally controlled substances. Based on their pharmacological effects, prevalent NPS in China encompass stimulants, synthetic cannabinoids, and classic hallucinogens. In China, stimulant NPS are mainly represented by cathinones and phenethylamines. Synthetic cannabinoids primarily consist of synthetic cannabinoid receptor agonists. Hallucinogens are mainly composed of tryptamines. Instances of these substances available on the market include 'KAWA' drinks (containing the controlled psychotropic drug gamma-hydroxybutyric acid), 'stamps' (stamp-like paper saturated with a blend of hallucinogenic drugs MDPBP and 25B-NBOMe), 'Arabian tea' (similar to heroin, inducing stimulation or hallucination), 'hemp cigarettes' (derived from opium produced in India), 'red beans' (containing nitrazepam), 'rainbow cigarettes' (a mix of second- and third-tier drugs), 'milk tea' (primarily

comprising methamphetamine and ketamine), ‘cookie biscuits’ (or small twigs, containing synthetic cannabinoids), ‘jelly’ (mainly composed of phenazepam), and others, each representing various forms of NPS. Additionally, substances like ‘Number Zero Capsules’, ‘G-Spot Liquid’, and ‘Rhino Liquid’ fall under the category of tryptamines (Chen/Fu 2020, pp. 94–95).

2. The Current Situation of NPS in China

1) The Detection Status of NPS in China in Recent Years

China has placed over 170 NPS under regulatory control. These include 53 types of synthetic cannabinoids, 50 types of synthetic cathinones, 26 types of phenethylamines, five types of tryptamines, two types of aminoindanes, five types of piperazines, four types of phencyclidine-type substances, one type of plant-based substance, and twelve types of other substances. Additionally, a blanket control measure was implemented for fentanyl analogues in 2019. Furthermore, in 2021, the National Narcotics Control Office in China (NNCO) revealed its decision to regulate synthetic cannabinoids nationally through a generic definition, along with 18 other substances listed individually (UNODC 2024).

In 2017, the National Drug Testing Laboratory of China analysed 1,193 suspicious samples gathered by public security organs and customs. The findings revealed that a total of 780 samples contained NPS, constituting 65.4% of the total, with 35 substances detected for the first time in China. Among these, there were 87 varieties of NPS, including synthetic cathinones (64.7%), synthetic cannabinoids (18.5%), fentanyl analogues (5%), and other substances (7.9%). 14.9% of the 780 samples contained NPS that are already regulated in China, while the remaining 85.1% comprised unregulated types of NPS. In 2018, the National Drug Testing Laboratory examined 912 suspicious samples gathered by public security organs and customs. The findings revealed that 582 samples contained NPS, comprising 63.8% of the total, with 32 substances being detected for the first time in China. Among these, there were 103 varieties of NPS, including synthetic cannabinoids (52.7%), synthetic cathinones (30.0%), fentanyl analogues (2.9%), and other substances (6.6%). 18.3% of the 582 samples contained NPS that are already regulated in China, while the remaining 81.7% comprised unregulated types of NPS. At the end of August 2019, the National

Drug Testing Laboratory tested 514 suspicious samples gathered by public security organs and customs. The findings revealed that 206 samples contained NPS, constituting 40.1% of the total, with five substances being detected for the first time in China. Among these, there were 41 varieties of NPS, with synthetic cannabinoids making up 72.0%, synthetic cathinones 17.8%, and tryptamines 0.4%. 12.5% of the 206 samples contained NPS that are already regulated in China, while the remaining 87.5% comprised unregulated types of NPS (Ma et al. 2019, p. 4).

Despite the continual rise in the regulation of NPS in China, the average detection rate of unregulated NPS remained consistently high at 84.8% from 2017 to 2019. This indicates that, notwithstanding efforts to enhance control and enforcement, varieties of NPS persist in evolving and spreading (Yang 2020, p. 5).

The UNODC report entitled *Synthetic Drugs in East and Southeast Asia—Latest Developments and Challenges* (2021, p. 43) reveals that the annual identification of synthetic cathinones in China has exhibited a declining trend since 2016 (Figure 3 and Figure 4). In 2020, only six different synthetic cathinones were identified. Synthetic cannabinoids consistently constituted the largest proportion of identified NPS from 2018 to 2020 (Figure 3). Following China's national scheduling in May 2019, no fentanyl analogues were detected in the country (Figure 3). Moreover, seizures of ketamine have continued to decrease, with the quantity seized in 2020 amounting to less than a tenth of the record quantity reported in 2015.

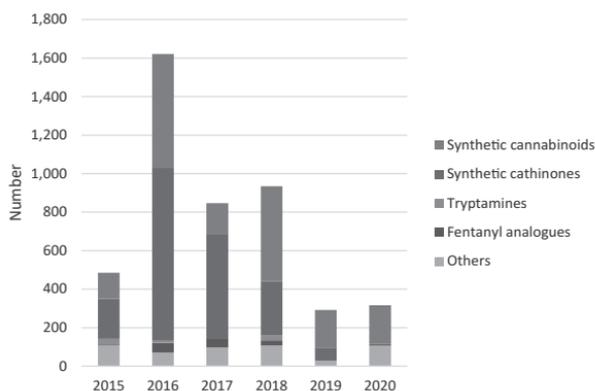


Figure 3: Frequency of NPS identified by the NPS Monitoring Programme of China, by substance group, 2015–2020 (UNODC 2021, p. 45).

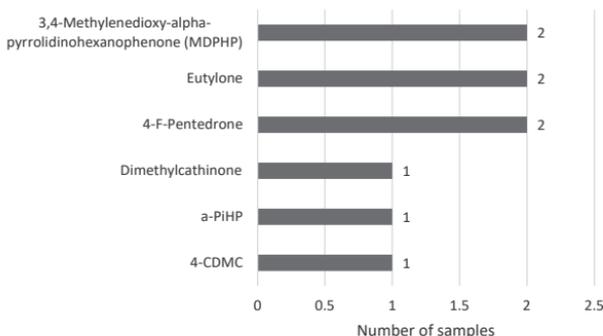


Figure 4: Top six synthetic cathinones identified by the NPS Monitoring Programme of China, 2020 (UNODC 2021, p. 45).

2) The Criminal Situation Related to NPS in China

During recent years, China has uncovered several criminal cases involving NPS. The NPS implicated in these cases mainly comprise synthetic cannabinoids, synthetic cathinones, and fentanyl analogues, as well as other substances. A total of seven substances were primarily detected in synthetic cathinones: 5-Fur144, ADB-CHIMINACA, ABC, 5F-AMB, FUB-PB-22, PX-2, and MDMB-CHMICA. Synthetic cathinones, including Ethylone, α -PVP, 3-MMC, 4-CMC, N-Ethylpentylone, and MBDB, have also been identified. Among fentanyl analogues, the primary substances detected are fentanyl, furanylfentanyl, and carfentanil, totalling three substances. In the category of other substances, U-47700 was the primary substance detected (Ma et al. 2019, p. 5).

From the perspective of the NPS crime cases uncovered in China, the main types of crimes are the manufacturing, smuggling, and trafficking of NPS. The Yangtze River Delta region (the region in eastern China where the Yangtze River empties into the East China Sea, primarily encompassing Jiangsu province, Zhejiang province, Anhui province, and Shanghai municipality; it is one of the most developed and economically significant regions in China) is the source area for such cases, and the problem of manufacturing and smuggling NPS in China is gradually spreading from the Yangtze River Delta region to other areas.

According to Yang (2020, pp. 6–7), an examination of cases tied to the creation and distribution of NPS reveals several key characteristics:

i. The typical criminal procedure involves reaching out to international buyers, locating local research and development entities to tailor-make the desired NPS, and dispatching the resulting substances overseas.

ii. The individuals implicated in these activities are predominantly professionals. In recent times, those involved in the production and trafficking of NPS often boast backgrounds in chemistry, pharmaceuticals, import/export, and related domains. They exhibit advanced levels of legal and foreign language proficiency, suggesting sophisticated criminal operations carried out by individuals with higher educational and vocational qualifications. Depending on their specific roles in the NPS supply chain, offenders are typically categorised as organisers (in charge of securing overseas buyers and local production facilities), researchers and manufacturers (involved in domestic research and the production of new psychoactive substances), or couriers (responsible for smuggling the substances abroad).

iii. The types of crimes are usually divided into two categories. One involves an amalgamation of production and distribution, wherein the perpetrators assume multiple roles. Take, for instance, the case of Wang from Huanggang, Hubei, involved in the manufacturing and smuggling of NPS. In this scenario, Wang and their accomplices serve as both organisers, tasked with sourcing overseas buyers, and as researchers and manufacturers engaged in the domestic production of new psychoactive substances. The other category comprises separate production and sales activities, with primary offenders usually functioning solely as organisers. For example, in the case of Yang from Yixing, Jiangsu, manufacturing and trafficking NPS, Yang operates as the organiser. Initially, these organisers scout for overseas buyers on relevant online platforms, then identify suitable domestic pharmaceutical and chemical research and production entities. Subsequently, upon discerning the specifications outlined by overseas buyers, organisers arrange for the customisation of the required NPS through the selected domestic enterprises or companies. Finally, they dispatch the produced NPS to the consumer country abroad via international courier or freight services.

iv. Smuggling tactics predominantly involve international freight forwarding agents and global express delivery services. Pre 2017, a portion of NPS manufactured in China were dispatched overseas through international express delivery services. However, since 2018, this has changed, for two potential reasons: firstly, international express delivery services strengthened their supervision of items being sent; secondly, items sent by express delivery are easily exposed and may be refused by courier. Con-

sequently, the smuggling of NPS has increasingly relied on international freight forwarding agents or the establishment of specialised trade routes between China and Russia and China and the United States, among others. These freight forwarding agents specialise in international parcel delivery and possess in-depth knowledge of inspection protocols and effective concealment methods, resulting in a heightened success rate for shipping NPS. The main concealment methods used include using 'documents stowage' (*wenjianjiadai*, refers to the practice of concealing documents or papers within a package or shipment to disguise or conceal the actual contents) or sending electronic products as covers.

v. Using online networking for production and distribution. The internet serves as a vital conduit in the creation, marketing, and illicit transportation of NPS. Those involved in orchestrating the domestic production and trafficking of these substances, whether in pursuit of foreign buyers or in collaboration with local entities capable of manufacturing NPS, typically promote their wares on relevant chemical industry websites or scout for domestic research and production facilities for pharmaceutical intermediates online. Notably, these alleged perpetrators often refrain from using the common or chemical names of NPS in their online communications, opting instead for specialised codes to enhance concealment.

vi. Promoting concealment of transaction funds. In order to facilitate large-scale transactions of new psychoactive substances conveniently, discreetly, securely, and without detection, professional criminal groups involved in NPS crimes often register companies overseas, specifically for offshore settlements for online trade. Only a few sporadic illegal transactions are settled through cross-border remittances. Depending on whether criminals treat the production and trafficking of NPS as a profession, they can be categorised as professional criminals or sporadic criminals.

In conclusion, the illicit production, distribution, and smuggling of NPS represent a complex and multifaceted criminal enterprise. From the meticulous networking facilitated by online platforms to the sophisticated concealment techniques employed in transactional activities, criminal organisations demonstrate a high degree of organisation and adaptability. The evolution of smuggling methods, shifting from reliance on international express delivery services to strategic engagement with international freight forwarding agents, underscores the dynamic nature of these illicit operations. Furthermore, the categorisation of offenders into professional criminals and sporadic criminals highlights the varying degrees of involvement and commitment within this criminal landscape. Efforts to combat

NPS-related crimes must therefore remain vigilant and adaptive, addressing the challenges posed by technological advancements and criminal sophistication.

3. The Legal Framework of NPS in China

According to the UNODC, there are two types of legislation for NPS in China: 1) drug laws/individual listings and 2) generic legislation. In 2010, mephedrone was classified as a Class I psychotropic substance. On 11th November 2013, the Chinese Drug and Food Administration, the Ministry of Public Security, and the National Health and Family Planning Commission jointly issued a notice, releasing the ‘Catalogue of Narcotic Drugs (2013 Edition)’ and the ‘Catalogue of Psychotropic Drugs (2013 Edition)’. Building upon the existing regulation of the NPS ketamine, 13 NPS, such as 4-methylmethcathinone and JWH-018, were added to the psychotropic drugs catalogue for regulation. This decision took effect on 1st January 2014 (UNODC 2024; Ma et al. 2019, p. 6).

On 24th September 2015, the Ministry of Public Security, the Chinese Drug and Food Administration, the National Health and Family Planning Commission, and the National Narcotics Control Commission (NNCC) jointly announced the ‘Administrative Measures on Narcotics and Psychotropic Substances without Medical Use’, the appendix of which—the ‘Supplementary List of Controlled Narcotic Drugs and Psychotropic Substances with Non-medical Use’—included 116 NPS, comprising six fentanyl analogues, synthetic cannabinoids, several tryptamines, and other substances. This regulation came into effect on 1st October 2015. Subsequently, an amendment added four more fentanyl analogues (acrylfentanyl, carfentanil, furanylfentanyl, and valerylfentanyl) to the list based on the ‘Notice of the inclusion of 4 fentanyl analogues’, effective from 1st March 2017 (UNODC 2024; Ma et al. 2019, p. 6).

On 7th April 2016, the Supreme People’s Court (SPC) issued a revised judicial interpretation document outlining regulations for drug-related convictions and sentencing. The document introduced stricter guidelines, halving the threshold amount for ketamine-related convictions. Furthermore, it expanded the list of illegal drugs subject to criminal penalties by including twelve additional types and lowered the threshold for illegal use convictions for 33 precursor chemicals. These updated regulations have been in effect since 11th April 2016 (UNODC 2024).

On 22nd May 2017, the Ministry of Public Security, the Chinese Drug and Food Administration, and the National Health and Family Planning Commission jointly issued a notice, the 'Notice of Including Four Substances such as N-methyl-N-(2-methylamino cyclohexyl)-3,4-dichlorobenzamide (U-47700) into the supplementary list of narcotic drugs and psychotropic substances without medical use'. This notice included the regulation of four substances, U-47700, MT-45, PMMA, and 4,4'-DMAR, effective from 1st July 2017 (Ma et al. 2019, p. 6).

On 16th August 2018, the Ministry of Public Security, the National Health Commission, and the National Medical Products Administration jointly issued a notice, the 'Notice on the inclusion of 32 types of NPS including 4-CEC into the supplementary list of narcotic drugs and psychotropic substances without medical use'. This announcement included the regulation of 32 substances, including 4-Chloroethcathinone, effective from 1st September 2018 (UNODC 2024; Ma et al. 2019, p. 6).

Regarding generic legislation in China, on 1st May 2019, the decision of the Government of China to include fentanyl analogues in the 'Supplementary List of Controlled Narcotic Drugs and Psychotropic Substances with Non-medical Use' took effect.

As per the announcement, substances sharing structural similarities with fentanyl through one or more of the following alterations will be regulated from then on: 1) substituting the N-propionyl group with another acyl group; 2) replacing the N-phenyl group with any aromatic monocycle, whether or not further substituted in or on the monocycle; 3) substituting alkyl, alkenyl, alkoxy, ester, ether, hydroxyl, halo, haloalkyl, amino, or nitro groups in or on the piperidine ring; and/or 4) replacing the phenethyl group with another group, except for the hydrogen atom. Additionally, on 11th May 2021, the National Narcotics Control Office in China (NNCO) declared the inclusion of synthetic cannabinoids under national control, employing a generic definition, along with an additional 18 substances regulated through individual listings. This control measure became effective as of 1st July 2021 (UNODC 2024).

Overall, NPS in China are divided into three groups: narcotic drugs, psychotropic substances, and substances without medical use. The first two groups require authorisation for production, transportation, sale, use, import, and export, while for the third group, any supply activity involving such substances is prohibited. As of September 2019, China had regulated a total of 170 new psychoactive substances and fentanyl analogues. Among them, 14 substances are governed by the 'Regulations on the Administration

of Narcotic Drugs and Psychotropic Drugs', listed in the Catalogue of Psychotropic Drugs (2013 Edition) and classified as Class I psychotropic substances. The remaining 156 substances and fentanyl analogues are managed under the 'Administrative Measures on Narcotics and Psychotropic Substances without Medical Use' (Ma et al. 2019, pp. 5–6).

4. Demographic Characteristics of NPS Abusers in China

A survey conducted by Jiang et al. (2024, pp. 50–54) at the Qingdong Compulsory Isolation Detoxification Center in Shanghai involved ten NPS abusers. The survey data was analysed to create concise and well-defined categories of results. The demographic data revealed that all ten individuals undergoing detoxification were male. Among them, three were aged 20 to 30, comprising 30% of the sample, while seven were aged 30 to 40, constituting 70% of the sample, with an average age of 32.9 years. Three individuals held household registration in Shanghai, representing 30% of the sample, while seven held household registration in other provinces or cities, accounting for 70% of the sample. One individual was married (10% of the sample), eight were unmarried (80% of the sample), and one was divorced (10% of the sample). Educational backgrounds varied, with two individuals having completed junior high school (20% of the sample), three completing vocational school (30% of the sample), and five having completed college or higher education (50% of the sample). None of the individuals had stable employment, with two being unemployed, three self-employed, three working in nightclubs or music-related industries, and two engaged in freelance work.

Based on the findings from these ten survey participants, some general observations about the characteristics of individuals undergoing detoxification from NPS abuse can be made:

- 1) Youthfulness, high education levels, and a strong interest in music and art: The sampled individuals, with an average age of 32.9 years, generally had at least a junior high school education level, with 50% having completed college or higher education. This group tended to be younger and more educated compared to traditional drug users, with many having hobbies related to music and art.
- 2) Limited awareness of the legal classification of NPS: Most individuals undergoing detoxification perceived the use of NPS as a form of social interaction or recreation, similar to smoking or drinking alcohol. They

were unaware of the legal classification of these substances and had limited knowledge of relevant laws regarding NPS.

- 3) A combination of substance abuse driven by the pursuit of stimulation: Many individuals in the study lacked awareness of the harmful effects of NPS and engaged in concurrent abuse of multiple substances to seek pleasurable effects. They continuously experimented with different NPS without understanding the addictive and harmful nature of these substances.
- 4) Physical damage to some extent: Although short-term use of NPS may not exhibit obvious physical damage, prolonged and regular use can lead to adverse effects such as unstable blood pressure, palpitations, and chronic ailments affecting various bodily systems among these people.
- 5) High comorbidity rate of mental disorders: A significant proportion of the sampled individuals exhibited symptoms of mental disorders such as depression, anxiety, and personality disorders, which were exacerbated by long-term NPS use.
- 6) Significant exacerbation of cognitive dysfunction: Prolonged use of NPS resulted in noticeable cognitive dysfunction, including memory decline, reduced self-identity, and difficulties with concentration and learning.
- 7) Severe impairment in social functioning: Long-term abuse of NPS led to varying degrees of social dysfunction, with individuals lacking stable employment and experiencing withdrawal from family and social interactions, preferring solitude.

III. Public Health Responses to NPS in China

1. Monitoring and Evaluation System for NPS in China

In response to the rapid emergence and proliferation of NPS both domestically and internationally, the NNCO has implemented various measures aimed at monitoring and evaluating these substances to prevent their illegal production, distribution, transportation, use, and import/export. In 2011, China's National Drug Laboratory initiated the 'NPS Monitoring Project', collaborating primarily with local public security agencies and customs authorities. This initiative involves monitoring the manufacturing, distribution, smuggling, abuse patterns, and trends of NPS in China by collecting and analysing suspicious samples discovered within the country. If these

samples contain controlled substances according to Chinese regulations, relevant investigation procedures are activated. Conversely, if the samples contain substances not yet regulated in China, pertinent information is documented for future regulatory considerations (Ma et al. 2019, pp. 14–15).

Concurrently, local narcotics control offices within the country coordinate with public security agencies and relevant departments to enhance the monitoring of narcotic drugs and psychotropic substances without medical use. They promptly report their monitoring findings to the NNCO. Following data summarisation and analysis, the NNCO regularly disseminates monitoring information and early warning messages concerning NPS within the country. For non-medical narcotic drugs and psychotropic substances flagged by the NNCO but not yet regulated, local narcotics control offices then conduct focused monitoring activities (Ma et al. 2019, p. 15).

If the NNCO deems it necessary to regulate specific non-medical narcotic drugs and psychotropic substances, it proposes a tentative list of substances for regulation, submitted to the Expert Committee on Non-Medical Narcotic Drugs and Psychotropic Drugs (hereinafter referred to as the Expert Committee) for risk assessment. The Expert Committee assesses whether the substances on the proposed list should be regulated by reviewing scientific literature, conducting addiction and harm assessment animal experiments, investigating relevant case reports, and considering factors such as abuse potential, trafficking, and real harm. This assessment is usually completed within three months. Upon the Expert Committee's recommendation for regulation, the NNCO suggests that the Ministry of Public Security, in collaboration with the Chinese Drug and Food Administration, and the National Health and Family Planning Commission, proceed with the regulation of these substances. These departments are expected to complete the regulation of non-medical narcotic drugs and psychotropic substances within six months of receiving the recommendation from the NNCO. Currently, the NPS regulated in China primarily consist of domestically discovered varieties, with only a few reported from abroad (Ma et al. 2019, p. 15).

Furthermore, to acquire scientifically sound dependency conversion data and conduct a thorough assessment of the public health risks associated with regulated NPS, China's National Drug Laboratory has embarked on significant pioneering efforts in recent years. These endeavours primarily focus on evaluating the dependency conversion of drugs and NPS. The laboratory has established standardised technical procedures and systems for evaluating dependency conversion for common drugs and specific key

types of new psychoactive substances. These initiatives lay the groundwork for scientifically assessing the addiction and abuse potential of NPS for regulatory purposes and serve as benchmark standards for determining conviction and sentencing quantities in law enforcement and judicial practices (Ma et al. 2019, p. 15).

Essential elements of China's regulatory process for non-medical narcotic drugs and psychotropic substances include: 1) permanent regulation: regulations are enduring and without temporal limitations; 2) different overseeing departments: unlike its medicinal counterparts, the NNCO manages the regulation and catalogue adjustments of NPS, with the Ministry of Public Security assuming responsibility (Ma et al. 2019, p. 16).

2. Assessment of NPS Dependency in China

NPS come in various types, exhibit diverse structures, possess distinct pharmacological characteristics, and involve complex addiction mechanisms. Due to this complexity, evaluating their dependency and abuse characteristics accurately is challenging. Therefore, it is necessary to adopt multiple technical means and methodologies to comprehensively assess the addictive potential and abuse risks of NPS. Currently, the assessment of NPS dependency primarily focuses on four aspects: neuropsychopharmacological research, physical dependency research, psychological dependency research, and toxicity research (Ma et al. 2019, p. 17).

1) Neuropsychopharmacological Research

Neuropsychopharmacology studies the effects of drugs on nervous system function and mental activities, exploring their pharmacological characteristics and mechanisms. It's crucial to employ neuropharmacological research methods and tools to assess the abuse potential of NPS. These methods include radioligand-receptor binding assays, intracerebral microdialysis with high-performance liquid chromatography (HPLC) analysis, and physical and psychological dependency experiments. Assessing the chemical structure, drug classification, and abuse patterns of NPS is essential for determining research strategies and methods (Ma et al. 2019, pp. 17–18).

2) Physical Dependency Research

Physical dependence occurs when individuals require external substances to maintain normal physiological function. Among NPS, only opioid drugs evoke pronounced physical withdrawal symptoms. Thus, existing methods for assessing physical dependence focus on opioids. These methods include natural withdrawal experiments, precipitated withdrawal experiments, and substitution experiments (Ma et al. 2019, p. 19).

3) Psychological Dependency Research

Psychological dependence results in shifts in users' emotions and experiences, leading to cravings for pleasurable effects. Many NPS can induce psychological dependence. Animal experimental research methods to evaluate psychological dependence include conditioned place preference (CPP) experiments, drug self-administration (DSA) experiments, drug discrimination (DD) experiments, and behavioural sensitisation (BS) experiments. Each method assesses different aspects of drug addiction and abuse (Ma et al. 2019, pp. 20–23).

4) Toxicity Research

Evaluating the harmfulness of NPS is complex and requires consideration of their societal impact and potential consequences post-regulation. According to the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), a comprehensive risk assessment report includes a substance overview, health and social risks, regulatory options, potential consequences, and standardised weights. Toxicological experimental data is crucial in assessing the harmfulness of NPS, primarily derived from both in vivo and in vitro toxicity experiments (Ma et al. 2019, pp. 23–24).

i. In Vivo Toxicity Experiments

In vivo toxicity experiments include acute and long-term experiments. Acute experiments swiftly evaluate drug toxicity levels, offering insights into potential toxic reactions in humans. Long-term experiments observe prolonged toxic effects through repeated administrations, describing the nature and extent of toxic reactions (Ma et al. 2019, p. 24).

ii. In Vitro Toxicity Experiments

Some NPS demonstrate stronger neurostimulant and psychoactive effects than regulated drugs. Hence, assessing their harmfulness should include their addictive potential, neurotoxicity, and central inhibitory effects. Neurotoxicity can lead to irreversible damage to the central nervous system. Establishing efficient, sensitive, and standardised neurotoxicity testing methods is urgent for timely assessments (Ma et al. 2019, p. 25).

3. Conclusion

In conclusion, accurately evaluating the addictive potential and harm of NPS is essential in order to effectively combat their illicit use. To tackle this challenge, extensive research has been undertaken in China to deepen our understanding of the addictive properties of NPS. Collaborating with prominent domestic addiction research institutions, China's National Drug Laboratory has conducted comprehensive assessments of NPS dependency. Utilising various experimental techniques, such as conditioned place preference, self-administration, drug discrimination, behavioural sensitisation, acute toxicity, and in vitro neurotoxicity experiments, we have evaluated the addictive potential and harm associated with different types of NPS. The objective is to establish standardised procedures and assessment systems for evaluating the addictive potential and harm of various NPS categories, including synthetic cannabinoids, synthetic cathinones, phenethylamines, and fentanyl derivatives. Ultimately, this endeavour aims to provide a scientific foundation for national control measures against NPS and crackdowns on related criminal activities. Conducting global assessments of NPS dependency enables a scientific evaluation of their addictive and abusive potential, thereby informing law enforcement and judicial practices in setting sentencing standards for these emerging substances. These endeavours will significantly bolster authorities' capacity to combat illegal NPS activities, advancing drug control efforts in a more contemporary and evidence-based manner.

IV. Current Challenges and Future Strategies Regarding NPS Abuse in China

1. Current Challenges

1) Diverse Regulatory Approaches

Currently, international regulations governing NPS primarily rely on the United Nations' 1961 Single Convention on Narcotic Drugs and the 1971 Convention on Psychotropic Substances. However, differences in how countries define NPS boundaries, along with diverse national contexts and regulatory frameworks, have led to the emergence of various control models tailored to domestic circumstances. Consequently, these differences hinder the effectiveness of international regulatory conventions. This variation in control measures means that a synthetic substance may be classified as an NPS and regulated in some regions or countries while remaining legal in others. As previously mentioned, UNODC data indicates the discovery of 1,228 individual NPS, yet only 170 NPS are regulated in China. Such inconsistencies in regulatory enforcement enable illicit actors to exploit legal discrepancies and evade accountability, posing significant challenges to effectively combatting the rapid proliferation and abuse of NPS (Chen/Fu 2020, p. 97).

2) Discrepancies in Drug Control Systems and NPS Regulation

NPS pose distinct challenges compared to traditional drugs like cannabis, heroin, and methamphetamine. Firstly, their diverse range and intricate forms make them elusive and clandestine during distribution or transportation, requiring advanced monitoring techniques and skilled enforcement personnel. Secondly, NPS often result from modifications or innovations to already regulated substances, leading to structural variability and short manufacturing cycles. Many of these substances may not fit conventional legislative control or scheduling due to their brief presence on the market, making temporary scheduling a more effective approach. Additionally, most NPS are chemically synthesised, necessitating substantial quantities of chemical raw materials and precursors. Hence, intercepting their dissemination at the source is crucial to addressing the root cause of their proliferation. Essentially, prevention and control efforts against NPS should commence with robust supervision and management of precursor chemicals, manufacturing materials, and process equipment. Finally, as an integral

part of the national drug control system, efforts to prevent and control NPS should establish comprehensive monitoring, detection, assessment, early warning, and regulatory systems to dynamically evaluate these substances and make timely regulatory decisions (Chen/Fu 2020, p. 97).

While China has established a relatively comprehensive control framework for NPS in alignment with the international control regime, the current systems for preventing and controlling NPS, both internationally and in China, are not holistic enough due to NPS' chemical synthesis and structural variability. Research in various countries primarily focuses on identification methods. Existing drug control systems are primarily tailored to address traditional drugs like cannabis, heroin, and methamphetamine, with many control measures proving inapplicable or ineffective for NPS, a potential new generation of drugs characterised by their flexibility and variability. Consequently, the absence of a comprehensive prevention and control system for NPS results in delayed regulation, leaving subsequent monitoring and assessment susceptible to manipulation by illicit actors, leading to a passive defence dilemma. Crime cases in China, such as the 'Little Branch' new synthetic drug case adjudicated in Wuxi, Jiangsu province in November 2019, exemplify this issue. It was only after the verdict that 'Little Branch', containing AMB-FUBINACA, an NPS, partially entered the public eye. This case is not isolated but reflects the common challenges faced internationally or domestically in dealing with NPS. The discovery of NPS often occurs reactively, after these substances have already circulated to some extent in the market, rather than as a proactive response by national drug control agencies. This reactive monitoring approach, resembling a chase-style strategy, seems less effective in regulating and preventing NPS, potentially resulting in inefficient resource allocation and increased social governance costs (Chen/Fu 2020, p. 97).

3) Insufficient Awareness of NPS

While plant-based NPS have a historical record spanning centuries, the level of global attention paid to chemically synthesised NPS has increased significantly over the past decade. Disparities in research progress among countries have led to limited available data, with some nations not adequately prioritising the issue. Consequently, there is a scarcity of accessible information on new psychoactive substances both internationally and domestically, with some data only accessible to researchers, excluding the general public. While narcotic drug education is prioritised in most coun-

tries and integrated into national education systems, research on NPS lags behind due to their recent emergence. Moreover, as a significant portion of NPS comprises prescription drugs, the monitoring data on NPS is not included in the annual China Narcotics Report and Drug Situation Report. Consequently, apart from professionals and workers in relevant fields, the general public lacks adequate awareness of new psychoactive substances, with some demonstrating a lack of knowledge. According to a survey of 341 respondents, 56% had never heard of the concept of new psychoactive substances, 29.6% had only heard of the term but did not have any understanding of or familiarity with new psychoactive substances, and less than 15% had some understanding of or familiarity with new psychoactive substances - Figure 5 (Chen/Fu 2020, p. 97).

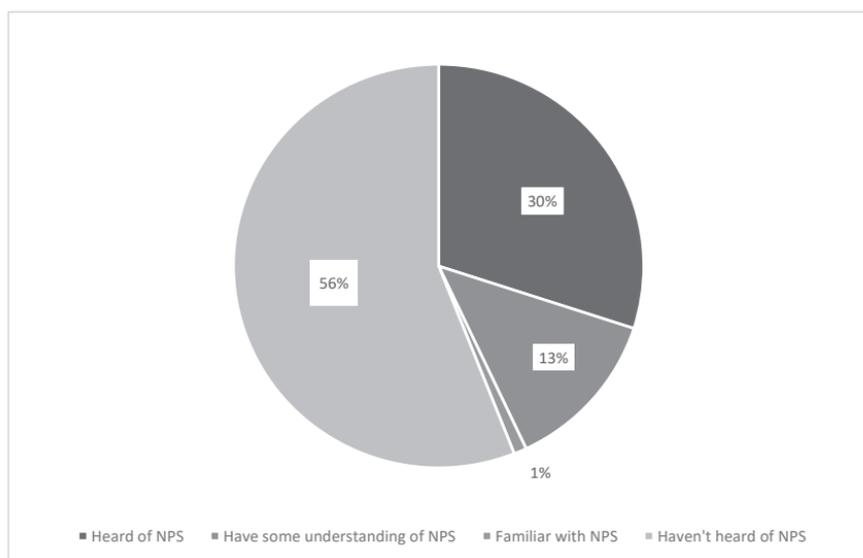


Figure 5: Awareness of NPS among 341 respondents (Chen/Fu 2020, p. 98).

The data indicates that NPS are still relatively unfamiliar to most people, with many not even recognising this basic term, let alone having a deeper understanding of it. Therefore, expecting individuals who are unaware of NPS to identify them, avoid them, and prevent their use is unrealistic. While the survey may have limitations, it's noteworthy that among the 341 respondents, nearly 85% had received higher education, including 33% who were graduate students. This to some extent reflects the current level of

public awareness of new psychoactive substances. Although research data on new psychoactive substances may still be limited, education on these substances is crucial and should be integrated into the national education system to enhance the population's ability to recognise such new substances effectively (Chen/Fu 2020, p. 98).

2. Possible Strategies to Better Combat NPS Abuse in China

1) Legislation, Regulation, and System Enhancements

Legislation plays a crucial role in governing NPS, ensuring adherence to legality principles in both criminal and administrative law. Clear legal provisions are necessary to prevent illicit actors from exploiting loopholes to produce unregulated NPS and evade supervision. However, existing regulations in China, such as the 2005 'Narcotic Drugs and Psychotropic Drugs Administration Regulations' and the 2015 'Administrative Measures on Narcotic and Psychotropic Substances without Medical Use', may not fully address the complexities of NPS abuse. Additionally, public awareness efforts regarding NPS in China appear to be limited, as indicated by the minimal official documentation that has been provided since 2014, beyond the annual China Narcotics Report and Drug Situation Report. To effectively combat NPS abuse both nationally and internationally, initiatives should prioritise enhancing public awareness, refining regulatory models, and exploring specialised legislation for NPS control (Chen/Fu 2020, pp. 100–101).

2) Regulatory Measures and Optimization

In the regulatory landscape of NPS, implementation often lags behind. Despite the country's requirement for expedited risk assessment and scheduling procedures for urgent NPS cases, many of these substances have short lifespans on the market. Delays in the scheduling process can result in ineffective control or missed regulatory opportunities. As per Articles 7 and 9 of China's 2015 'Administrative Measures on Narcotic and Psychotropic Substances without Medical Use', the Expert Committee is tasked with completing risk assessments and scheduling arguments for proposed substances within three months. Furthermore, relevant departments should finalise the scheduling within six months of receiving proposals. However, the

longest scheduling period for NPS in China can extend up to nine months, surpassing the market lifespan of some substances. Failing to regulate them promptly can pose societal risks. Hence, optimising control procedures by shortening scheduling recognition periods is imperative. In specific cases, direct regulation post-expert evaluation or granting decision-making powers to relevant departments can enhance efficiency. Simplifying the scheduling process can facilitate dynamic and flexible regulation (Chen/Fu 2020, p. 101).

3) Enhancing a System for NPS Detection, Early Alert, Assessment, and Scheduling

Illicit actors often exploit computer networks and big data for the production, distribution, and dissemination of NPS. However, these same tools can empower governments in preventing and controlling NPS abuse, forming a critical aspect of prevention strategies. Leveraging computer networks and big data, a framework for the detection, early alert, assessment, and scheduling of NPS can be established. Given the diverse and rapidly evolving nature of NPS, accurate tracking and detection pose significant challenges. Moreover, the lack of comprehensive understanding of and detection methods for some NPS hinders expert assessments and national scheduling procedures. China's regulatory approach to NPS primarily relies on listing specific substances, which proves impractical given the increasing number and turnover rate of NPS. Additionally, the lengthy scheduling process renders regulatory efforts ineffective for substances with brief market appearances. Furthermore, some NPS lack detection methods and clear toxicological profiles, hindering scheduling discussions. In addition, all derivatives and analogues of scheduled substances should be monitored in a comprehensive big data model. Products containing common precursor chemicals should undergo testing by the national drug laboratory. Substances with toxicological effects similar to or stronger than controlled substances should be flagged for early warning alerts (Chen/Fu 2020, pp. 101–102).

V. Conclusion

In conclusion, the emergence of NPS poses a multifaceted challenge, intersecting drug regulation, public health, and law enforcement. NPS, designed

to mimic traditional drugs while evading regulation, must be thoroughly understood in order to facilitate effective policy formulation and strategy implementation. China, like other nations, has encountered the rise of NPS within its borders, reflecting a dynamic landscape marked by diverse substances, rapid turnover rates, and structural variations, complicating detection and regulation efforts.

Despite China's efforts to control NPS through enumerative scheduling models, challenges persist due to the influx and pace of new substances entering the market. The diverse nature of NPS, coupled with limited standardised detection methods and understanding of their toxicological profiles, underscores the need for ongoing research and cross-sector collaboration. Additionally, evolving tactics by illicit actors exploit legal gaps, demanding continuous adaptation and regulatory innovation.

Looking ahead, it seems suitable for China to consider anticipating and addressing emerging NPS trends and challenges by enhancing international cooperation, bolstering domestic research capabilities, and strengthening regulatory frameworks. By considering the adoption of a multi-dimensional approach that integrates prevention, enforcement, treatment, and harm reduction strategies, China may be better positioned to mitigate NPS risks and safeguard public health and safety. In summary, addressing the NPS issue in China may necessitate comprehensive and collaborative efforts to navigate its complexities and potentially mitigate harms more effectively.

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II. Harms and Social Risks of NPS Use in Vulnerable Populations

7. Primary Prevention of Synthetic Drug Addiction among the Youth of Kazakhstan: The Public's View

Zhandos Aktayev

Introduction

In recent years, both the public and the authorities of the Republic of Kazakhstan have been paying attention to the sharp increase in drug addiction in society, in particular the widespread drug addiction among the country's youth. Ordinary citizens are confronted with the direct and indirect consequences of mass drug addiction and hear that the Government of the Republic of Kazakhstan is taking measures to combat the drug epidemic. As the head of the largest public organisation aimed at preventing drug addiction among young people in Kazakhstan, I want to share my thoughts on the current situation, an analysis of measures taken in the country, subjective forecasts, and recommendations. In this chapter, I will discuss the causes of the spread of synthetic drugs in Kazakhstan, the reasons for the failure of drug addiction prevention, the institutional environment for drug addiction prevention in the Republic of Kazakhstan, and the effect of mass media on the effectiveness of prevention programmes. This work is exclusively analytical and research-oriented, presenting the perspectives of public activists involved in primary prevention

Reasons for the Widespread Use of Synthetic Drugs in the Republic of Kazakhstan

The issue of the spread of synthetic drugs in the territory of the Republic of Kazakhstan began to come to light after 2020, as the Covid-19 pandemic and quarantine measures highlighted the most problematic areas of society. Mass distribution of synthetic drugs did not happen immediately, and it is worth noting that the so-called 'smoking salts' appeared on the market first, which, in the early 2010s, could be found on open sale on online market-places as well as physical stores. Over the course of a decade, the population of Kazakhstan has been systematically becoming a victim of synthetic drugs

and the number of addicts has increased exponentially. In 2014, Rauan Shaekin, the Deputy of the Mazhilis of the Parliament of the Republic of Kazakhstan, spoke about the need for a legislative ban on synthetic drugs in Kazakhstan (Kosenov 2014). In 2019, Kazakhstan adopted a comprehensive set of legislative measures, but by that time, synthetic drugs had already been in a legal and semi-legal status for approximately ten years. In addition to legal factors, it is necessary to take into account the specifics of the drug business in terms of the sale of organic and synthetic drugs. The sale of synthetic drugs on a large scale requires a digital ecosystem and a clear structure of people unfamiliar with each other, forming a single mechanism, the ultimate beneficiaries of which, often, are far beyond the borders of the country where this criminal business is conducted. As a rule, there is a network of administrators of online sites who are responsible for product marketing, customer service, conducting online transactions, and coordinating with the consumer in their search for drugs. There are couriers who supply large quantities of drugs and 'drug pushers' who divide these batches into smaller portions and distribute them public places. Drug pushers also prepare photos and videos that include geospatial coordinates and send them to the consumer/buyer after the transaction. This is just the tip of the iceberg, but it makes it immediately clear that building such structures requires large financial and administrative resources. This model of contactless drug sales has much greater risk tolerance than the old systems, which involved drug sellers being out on the streets looking for customers or delivering traditional drugs in person to customers. Simply put, it has become easier and faster for drug users to buy synthetic drugs compared to traditional illegal drugs.

Kazakhstan is one of the most digitalised countries in the region and has become fertile ground for this type of illegal business. The developed system of electronic payments, the circulation of cryptocurrencies, and the digital literacy of citizens all contribute to the wide network of drug sales in Kazakhstan.

One of the important factors of fast expansion of synthetic drugs is their chemical property, which cause addiction from the moment of first use and have a high level of tolerance. Many users of synthetic drugs say that these drugs increase their libido and sexual desire, which is why they are often used as a club drug and as a tool for sexual harassment. This feature of the drug allows it to spread even faster, since addicts are ready to engage in prostitution, involve new people in addiction, and engage in other illegal activities in order to obtain a new dose, creating their own

personal micro-networks of new addicts, based on a principle similar to network marketing.

According to the Republican Scientific and Practical Center of Mental Health, by 2023, 13,437 people had been diagnosed with a mental or behavioural disorder due to substance use (Republican Scientific and Practical Center of Mental Health 2023). Every year, the number of addicted people grows by tens of thousands, and this leaves its mark on society—various kinds of media content are filled with allusions and references to the use of psychoactive substances, as well as to dependent behaviour. According to the Scientific Research Centre “Youth”, issues related to a sedentary lifestyle and the use of electronic cigarettes, vapes, and drugs are relevant for those aged 29–34 years in Kazakhstan (Figure 1) (‘Youth of Kazakhstan’ analytical report based on the results of a sociological study by the Scientific Research Centre ‘Youth’, 2023).

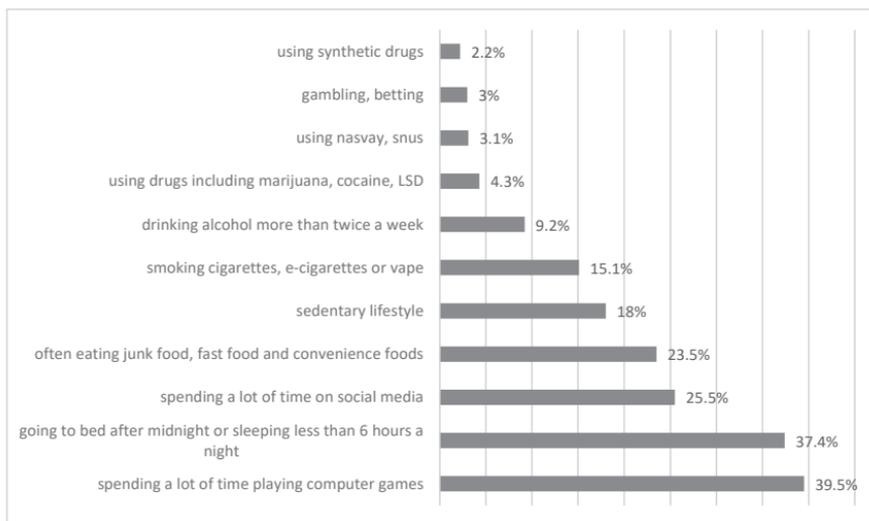


Figure 1: *The bad behavioural habits of young respondents in Kazakhstan (‘Youth of Kazakhstan’ analytical report based on the results of a sociological study by the Scientific Research Centre ‘Youth’, 2023)*

These findings warrant the need for evidence-based steps in policies to combat spread of synthetic drugs. First of all, these are bureaucratic and legal restrictions of law enforcement agencies — the lack of authority for law enforcement agencies to give synthetic drugs an illegal status gave

criminals a big head start. Secondly, there is a lack of operational measures on the internet to monitor suspicious adverts and transactions, and as yet there is no drug business network to identify the full structure and persons involved in drug crime on a systemic scale. Thirdly, there is a lack of permanent, high-efficiency information work aimed at a specific audience.

In this section of the chapter, the causes of the spread of synthetic drugs in Kazakhstan have been touched upon, and in the next section, the reasons for the low effectiveness of drug addiction prevention will be assessed.

Reasons for the Low Effectiveness of Drug Addiction Prevention in the Republic of Kazakhstan

Government agencies prevent drug addiction using traditional methods, such as lectures by doctors and law enforcement officers on the dangers and harms of drugs. Also, there are various kinds of public and sports events under slogans such as ‘no drugs’. In the field of information work, the state uses social videos aimed at inducing fear of losing loved ones and of marginalisation, but innovative methods in prevention have not yet been developed.

Despite numerous measures implemented by the state and the head of state, society evaluates the effectiveness of these actions very poorly. Constructive criticism has been repeatedly voiced by the President K. Tokayev:

‘The dynamics are sharply negative: over the past three years, the volume of “synthetics” withdrawn from circulation has increased 10 times. Synthetic drugs are becoming cheaper and more accessible every year. They are almost freely sold through social networks, messengers and even delivered to your home. Given the scale of this extremely dangerous social disease, the fight against the production and distribution of synthetic drugs should take on a national character,’ on 1st September 2022 (Tokayev 2022).

‘On the territory of the Republic of Kazakhstan, the production of drugs is growing. This is a problem that threatens the security of our state. To combat the spread of drugs, it is necessary to unite the efforts of all authorized bodies. Otherwise, we will aggravate the situation. It is necessary to take decisive measures to radically eliminate places for the production of synthetic drugs on the territory of Kazakhstan. This is a very important task,’ on 30th June 2023 (Tokayev 2023).

‘I have given instructions on this issue several times. However, there are no serious results. The availability of synthetic drugs and their rapid spread are leading to an increase in drug addiction among young people. The dangerous consequences of drug addiction need to be widely explained. It is necessary to stop campaigning and working only for the sake of statistics,’ on 22nd January 2024 (Tokayev 2024).

From these quotes, one can understand the history of the fight against drug addiction and drug trafficking. In fact, a number of experts argue that in Kazakhstan, the phenomenon of drug addiction now needs to be dealt with through systematic measures and a collective societal effort. It is not only authorised bodies who should do this work. But what is the reason for such low results and what difficulties does the state face in implementing the President’s policy? After analysing the situation, we can conclude that the key factors are the lack of a unified algorithm of actions, disorganisation between key departments, the desire to mechanically achieve planned indicators without taking into account the effectiveness of the measures taken, the lack of systematized evidence-based approaches, and underfunding of preventive programmes. I will now focus on each of these points separately.

In the field of drug addiction prevention, there are no fundamental documents or institutional tools for the implementation of prevention programmes, which causes confusion among certain government agencies. The task of combating drug addiction and drug trafficking is assigned to the Government of the Republic of Kazakhstan, which has adopted a Comprehensive National Plan to combat drug addiction and drug trafficking for 2023–2025 with focus on synthetic drugs. The Ministry of Internal Affairs is responsible for monitoring the implementation of the Comprehensive Plan. The implementation is entrusted to the Ministry of Internal Affairs, the Ministry of Foreign Affairs, the Ministry of Health, the Ministry of Science and Higher Education, the Ministry of Culture and Information, the Ministry of Digital Development and Aerospace Industry, the Ministry of Finance, the Ministry of National Economy, the Ministry of Education, the Ministry of Labor and Social Protection of Population, the Ministry of Justice, the Prosecutor General’s Office, the National Security Committee, the Agency for Financial monitoring, and local executive bodies.

Budgetary allocations under the Comprehensive Plan are primarily aimed at preventing drug crimes, and most preventive measures are funded within the framework of the previously adopted and current budget

(developed without taking into account the adoption of a Comprehensive Drug Addiction Plan), without the need for additional funding under the Comprehensive Plan.

At a regional level, interdepartmental headquarters operate under local executive bodies to coordinate the activities of state bodies aimed at countering drug addiction and drug trafficking, similar to the republican Comprehensive Plan. They adopt their own work plans, taking into account regional specifics.

As a rule, the goals and tasks assigned to each state body are prescribed by the same state body itself during planning, and thus, a situation arises whereby an agency creates goals for itself with achievable tasks and deadlines, while the really necessary measures remain ignored to various extents. This is complemented by the situation in the various regions of Kazakhstan, whereby local administrations ignore the tasks set by the interdepartmental headquarters thereby delaying the implementation of the Comprehensive Plan. Often, the reason for such a reaction is the dispersion of responsibility, since two to four state agencies are assigned to one point of a plan and each state body, due to its workload, expects its colleagues to implement tasks as specified in the plan.

Control over the execution of the Comprehensive Plan is entrusted to the same ministry (the Ministry of Internal Affairs). It primarily focuses on executing its main tasks and only afterward addresses interdepartmental control, lacking any mandatory authority over other departments.

The second reason for the low effectiveness is the previously mentioned lack of key documents regulating the prevention of drug addiction. Some documents use terms such as ‘drug addiction’, while there is no clear definition of the terms ‘drug addiction’, ‘co-dependency’, ‘addictive behaviour’, ‘counter-addictive behaviour’, ‘prevention’, ‘primary prevention’, ‘secondary prevention’, ‘tertiary prevention’, and others. There is a need for a cornerstone standard that codifies and organises everything, has a single algorithm for primary, secondary, and tertiary prevention, and regulates the process of rehabilitating and resocialising people with substance use disorders. There are no fundamental studies or analytical documents forecasting the growth of the problem and formulating clear recommendations. Similar opinions are voiced by national youth organisations (Central Communications Service under the President of the Republic of Kazakhstan 2022).

The proliferation of synthetic drugs among youth in Kazakhstan is a concerning trend with far-reaching consequences. The accessibility and

allure of these substances means that they pose a serious threat to the well-being of the younger generation. Increase in the number of young people engaged in drug consumption raises concerns and underscores the need for comprehensive targeted interventions. In my work with young people, I have noticed that drug use is common among different categories of young people—that is, those who are not engaged in any particular activity and those who are well educated and working are equally susceptible. This suggests that the problem goes beyond socio-economic factors or the level of education and that the root causes can be multifaceted. Today in Kazakhstan there are a number of programs and projects aimed at combating this problem, but the continued increase in the use of synthetic drugs indicates that these initiatives face certain difficulties. Firstly, there is often a lack of adequate understanding among young people about the risks and consequences of using synthetic drugs. Initiatives may not present information well or be adapted to the interests and needs of young people. It is crucial that contemporary teaching methods, which focus on personality development, are utilized and tailored to align with the current trends and realities of youth culture. Secondly, the lack of adequate funding is also a key root of the problem. Limited budgets and resources can make it difficult to scale and maintain youth initiatives. Effective control of synthetic drug use requires not only money, but also human resources, educational materials, the ability to evaluate and adapt programmes depending on the changing environment, and the ability to draw on international experience. Thirdly, in Kazakhstan today there are unfortunately no statistics or studies that would accurately identify the category of young people who use synthetic substances. I believe that understanding this would help to develop more effective methods for selective and indicated prevention.

As an example of effective measures, targeted psychological help should be mentioned. It is clear that this is being provided and is getting better every year. However, it is important to understand that not everyone needs the same kind of psychological support. For example, a schoolchild, a working student, and a young person who already has a family and also works all require different types of approaches and help. There is a need to train and allocate specialists experienced in working with various target groups. I would also like to point out that in preparing this work, I repeatedly turned to the available sources to obtain statistical data related to this topic. However, I could not obtain sufficient information due to the lack of specifics and variations in the existing body of research. The impact of youth initiatives on the effectiveness of prevention efforts cannot

be overlooked. Nationally, there has been an uptick in the detection and blocking of internet resources used for drug distribution, an increase in preventive seminars and trainings that engage young people of various ages, and a rise in the participation of young people in diverse leisure activities. The number of targeted young people is growing every year, as well as the number of worthwhile initiatives. Yet within the current reality, we need an inclusive, large-scale programme that will combine all the existing prevention programmes and initiatives and continue this fight.

To enhance the role that youth play in political decision-making, the Council for Youth Policy under the President of the Republic of Kazakhstan was formed in 2008. It holds quarterly meetings and actively monitors the implementation of the Comprehensive National Plan to combat synthetic drugs. Due to the efforts of the Council members, modifications were made to the Comprehensive Plan, resulting in the supervising body, the Ministry of Internal Affairs, now reporting directly to the Council on the implementation of the Plan.

Preventive Measures Taken by Public Organisations (NGOs and Foundations)

In addition to government agencies, public organisations are engaged in prevention on the ground. Many of them work within the framework of government social orders, grants, and international programmes such as the United Nations Office on Drugs and Crime (UNODC), the United States Agency for International Development (USAID), Community Anti-Drug Coalitions of America (CADCA), the Central Asia Drug Action Programme (CADAP), and others. It is worth noting that the level of private sponsorship and the number of corporate prevention programmes are extremely low, and donations from citizens themselves are few and far between.

The analysis of preventive services in Kazakhstan shows that it is mainly regional, non-governmental public organisations that are engaged in preventive measures, the effectiveness of which is questionable. The technical specifications of such projects do not take into account new tools that can be adopted, such as tracking, artificial intelligence, the strengthening of youth cybersecurity, and others. In these actions, there is a noticeable lack of systematic work and a multiplicative effect of measures, they are often aimed at achieving predetermined statistical indicators and do not carry

a cumulative meaning to continue the best practices of the past year or introduce innovative methods of prevention into events.

Despite the overall picture, it is worth noting the organisations whose preventive work has the greatest impact.

The Soc-KZ Public Foundation, in partnership with the KGN Alliance of Kazakhstan



Figure 2: The head of the Soc-KZ Public Foundation and an East Kazakhstan regional police officer meeting schoolchildren in Oskemen (www.sots.kz)

The Soc-KZ Public Foundation and the KGN Alliance of Kazakhstan are two organisations from the East Kazakhstan region that work in the fields of drug addiction prevention, sexually transmitted diseases, and work with sex industry employees. The range of work carried out by these organisations is wide, but despite this, they implement their projects effectively. The key feature of these organisations is the involvement of para-specialists. A para-specialist is an assistant to a professional, a specialist who does not have a higher level of education but has completed specialised courses, has appropriate professional training, and has passed a qualification exam. Often, these are people from key communities (addicts, sex workers, etc.) who have the social connections and special skills necessary to immerse themselves in this community. They conduct educational lectures, make monitoring visits to the so-called ‘street corners’, and act as advocates

between the state and these communities in order to improve situation and create an environment favourable for the rehabilitation and resocialisation of individuals from these communities.

Urban public movement 'NarkoStop' in Almaty



Figure 3: An action organised by NarkoStop, which involved painting over drug advertisements (www.narkostop.kz)

This movement has created a community centre in Almaty and is engaged in involving young people in a healthy lifestyle, through entertainment events that are educational in nature. Its main focus is working with young people through community centres. This organisation also organises activities that involve young people painting over drug advertising graffiti on walls in Almaty.

Public Foundation Esirtkisiz Bolashaq ('EsBol')



Figure 4: A gathering at the Astana headquarters of volunteers from the EsBol Foundation (author's compilation)

A republican public organisation that aims to conduct primary prevention of drug addiction and prevention of drug crime among young people. The Foundation provides expert support to government agencies and private partners in the fields of rulemaking, advocacy, and consultations. The EsBol Foundation concentrates on delivering life skills trainings to small groups of young people, teaching parents proper communication techniques with their children, and enhancing the skills of psychologists and teachers in educational institutions. Additionally, the foundation's volunteers participate in removing drug-related graffiti. They developed a software algorithm called 'MERGEN' that identifies and blocks websites and social network channels for drug trafficking. At the time of writing, the EsBol Foundation has blocked more than 3,000 channels in the Telegram Messenger app. The Foundation also focuses on creating preventive content

on the web, such as comics, short cartoons, and interactive checklists for parents.

Media Coverage of the Problem: Difficulties and Expertise

There are a number of weak spots in the mass media's coverage of the problem of synthetic drugs and their distribution among young people, which sometimes prevent the audience of these media from gaining an objective understanding of the problem. These weak spots include the stigmatisation of addiction and its consequences; making a poor distinction between the prevention of drug addiction and drug crime; and presenting the drug problem in an intentionally 'interesting' or hyped light, as opposed to a rational, accurate one.

The stigma of addiction and its consequences

The stigmatisation of drug addiction is a serious problem that can have profound and devastating consequences for those who suffer from this disease and for society as a whole. When people are considered 'drug addicts' or 'drug users', both their public reputation and self-esteem suffer, which can lead to social isolation, refusal of professional help, and even exacerbation of the problem. The process of stigmatisation often begins with negative biases and myths about drug addiction that take root in the public consciousness.

Examples of the stigmatisation of drug addiction may include employers' refusal to hire people with a history of drug addiction, public condemnation and alienation from friends and family, and the unavailability or unacceptability of medical care for drug addicts. This creates a vicious circle in which addicted people experience fear and shame, which prevents them from seeking help and support.

An integrated approach is needed to overcome the stigma of drug addiction, which should include the most effective measures, as follows. Education and public awareness should be prioritised, by conducting campaigns and educational programmes aimed at combating myths and prejudices about drug addiction and helping to change public opinion, while creating a more supportive and inclusive environment. Support from society and the state is also important in order to enable people suffering from addiction to feel accepted and supported. This may include providing access to medical and psychological care, as well as support with employment

and rehabilitation. Developing understanding and empathy is important—realising that drug addiction is a disease that requires a comprehensive approach to treatment and support. This attitude helps to create a more tolerant and supportive society that is ready to help people in their struggle with addiction. Overcoming the stigma of drug addiction requires joint efforts by society as a whole, the state, and the medical community aimed at education, support, and the development of empathy and understanding. The media is crucially important in this, as it can share specific messages and information with the public.

The lacking differentiation between drug addiction and drug crime prevention in the media

The distinction between the prevention of drug addiction and drug crime is an important aspect of information work that must be properly presented in the media. However, the difference between these two concepts is often unclear in the media, which can lead to misunderstandings among viewers, readers, or listeners. The problem of the lack of differentiation between drug addiction prevention and drug crime in the media often manifests in the following ways. The first way it manifests is through an inappropriate coverage of events. Some media reports or news reviews may mix up information about drug addiction and drug crime, making it difficult to understand their differences and unique aspects. For example, the news about a police raid to eliminate drug trafficking may be presented in the context of the ‘fight against drug addiction’, which distorts the real picture. Secondly, mass media regularly present information in a simplified form. In some cases, the media may not be able to provide a sufficient explanation of how drug addiction prevention differs from measures to combat drug crime. This may lead to a misunderstanding of what specific actions should be taken to tackle each of these problems. An example of incorrect differentiation in the media may be a situation in which a report on preventive measures among young people intended to prevent drug addiction is perceived by viewers as a fight against drug crime. In such cases, the public may develop the misconception that the fight against drug addiction is carried out through repressive measures, which can scare people suffering from drug addiction away from seeking help.

In order for the media to correctly distinguish between the prevention of drug addiction and drug crime, a range of internationally acknowledged actions should be implemented. One of the most urgent is training journalists on the differences between the prevention of drug addiction and the

fight against drug crime, as well as on methods and principles of proper coverage of these topics in the media. Thus, recommendations or standards of journalism could help journalists to cover the topics of drug addiction and drug crime correctly and objectively. At the same time, it is important to regularly inform the public about the relevance of both prevention and the fight against drug trafficking. In my opinion, it is necessary to focus efforts on raising awareness and educating both journalists and the public in order to ensure more accurate and objective coverage of the problem of drug addiction and drug crime in the media.

The predominance of engaging images and hyped information in the coverage of drug addiction issues

The predominance of engaging images over rational information in the coverage of drug addiction issues in the media can create a distorted view of the problem and hinder the formation of an objective view of it. This approach of hype and drama can lead to a superficial understanding of the problem and manipulation of the emotions of viewers, readers, or listeners. Some media outlets prefer to use sensational headlines and vivid images that grab the attention of viewers or readers but can distort the real picture of the problem of drug addiction. For example, the headline ‘Big drug scandal in Shymkent: shocking details’ is uninformative and focused on creating excitement, instead of providing objective information about the causes and consequences of drug addiction (Vera.kz 2024). Some media outlets prefer to pay more attention to the emotional aspects of the problem of drug addiction, for example by publishing personal stories of people’s suffering or impressive videos of personal dramas, to the detriment of rational analysis and objectivity. This can lead to a distorted view of the problem and make it difficult to develop constructive approaches to solving it.

In order to overcome the predominance of engaging images over rational information in the coverage of drug addiction in the media, it is important to conduct training seminars and courses on the ethics and standards of journalism in order to educate journalists on how to balance the emotional and rational aspects in the presentation of information about drug addiction. Journalistic guidelines and standards should emphasise the importance of objectivity, balance, and accuracy in reporting on drug addiction. Collaboration with experts, narcologists, activists, and members of the public could help journalists obtain high-quality information and recommendations on addressing the problem of drug addiction.

Conclusion

In conclusion, I would like to note that studying the effectiveness of the primary drug addiction prevention measures taken in the Republic of Kazakhstan requires a lot of time and resources. The specificity of any preventive activity is such that it should be permanent, and its result is noticeable only after many years. Any prevention of a negative phenomenon has to resist several risk factors at once, such as social pressure, the climate in an individual's family and close environment, their emotional and mental stability, their genetic predisposition, and many others. In such a situation, it is difficult to consider the effectiveness of measures in a vacuum, and it is necessary to take into account each experience individually. In Kazakhstan, there is still no way to dynamically monitor young people at risk, which is very sad. After all, such data would allow us to interview people who were at risk of becoming addicted and managed to bypass addiction. Such studies would allow us to develop effective preventive measures and justify removing measures from programmes that have shown to be ineffective or even harmful.

The absence of a government agency specifically responsible for primary prevention complicates the situation, as does the lack of strategic planning and involvement of experts from the field of prevention in the development of necessary measures. As is the case when solving any complex problem, an accurate analysis of the status quo and a clear understanding of the situation are required to begin with and must not be obscured by media headlines.

Kazakhstan has a long and difficult road ahead to improve the prevention of drug addiction among young people, and success will only be possible with the participation of qualified experts and NGOs and a strategic approach to such an important issue as the safety of our youth.

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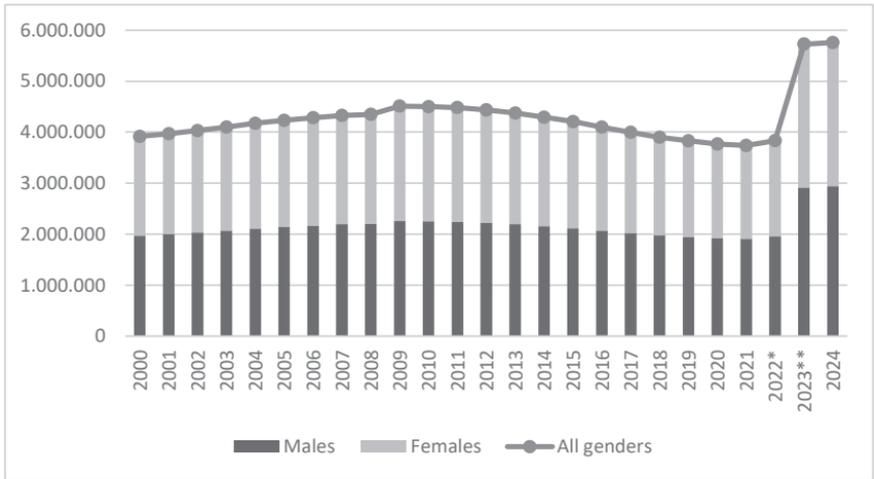
8. Synthetic Drug Issues in Kazakhstan: Emphasising Youth and Women's Involvement

Mariya Prilutskaya, Valentina Mankieva

Trends in Youth and Women's Involvement in Synthetic Drug-Related Crimes

Kazakhstan, a country in Central Asia, has a population of 20,139,914. As of 1st June 2024, women made up 51.2% of this population. In October 2023, the number of young people aged 14 to 35 was 5,726,629, representing 28.7% of the total population. The gender ratio within this age group mirrors that of the general population, maintaining a balanced ratio of 1:1. The dynamics of the change in the number of young people since 2000, including by gender, are presented in Figure 1 (Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan, 2024).

Given the crucial role of youth in the Republic of Kazakhstan, the country's policies concerning the younger generation are governed by legislation that underscores the importance of promoting healthy lifestyles and providing social support for young individuals affected by substance use (Law of the Republic of Kazakhstan 2015). The state's public health policy for 2020–2024 prioritises the development of evidence-based prevention programmes aimed at reducing drug use among youth (Resolution of the Government of the Republic of Kazakhstan 2022). The rapid proliferation of new drug threats in Central Asia, particularly in Kazakhstan, has prompted a national policy focus on synthetic drugs, especially among young people (UNODC 2022). The current national strategic plan to combat drug-related crime emphasises enhancing prevention measures within educational institutions, informal youth groups, and workplace collectives. An important metric of this strategic initiative is a targeted 20% reduction in the number of minors registered with drug addiction diagnoses by 2025 (Decree of the Government of the Republic of Kazakhstan 2023a).



* From 2000 to 2022, the term ‘youth’ referred to people aged 14–28.

**Since 2023, the term ‘youth’ has referred to people aged 14–35.

Figure 1: The dynamics of the number of young people in Kazakhstan from 2000 to 2024 (Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan, 2024)

Additionally, the Criminal Code imposes harsher penalties for the distribution and promotion of drugs among minors. Attempts to distribute drugs in public spaces and through social networks are considered aggravating factors, resulting in stricter sentencing. A specific provision in the Criminal Code strictly criminalises drug distribution among minors, punishable by imprisonment for fifteen to twenty years or a life sentence (Criminal Code of the Republic of Kazakhstan 2014). Media reports indicate that sporadic cases of drug trafficking in schools have been registered over the last decade (BaigeNews.kz 2021; Tengri news 2023). Numerous reports from law enforcement agencies indicate a rising trend of young people, including minors, becoming involved in drug-related offenses. These youths are predominantly engaged at the lower tiers of drug trafficking, functioning as distributors of drug stashes (KazTag 2023; Tengri news 2023). According to the information provided by the Committee on the Legal Statistics and Special Accounts of the State Office of Public Prosecutor of the Republic of Kazakhstan, there has been a gradual increase in the proportion of

young people and women committing crimes related to the distribution of synthetic drugs (Table 1).

Table 1: Statistics of synthetic drug trafficking offences

Year	Total number of offences	Committed by minors (%)	Committed by youth (%) (18–34 years old)	Committed by women (%)
2021	513	7 (1.4%)	356 (69.4%)	51 (11%)
2022	583	9 (1.6%)	436 (74.8%)	26 (12%)
As of 30 November 2023	702	9 (1.3%)	518 (73.8%)	88 (14.3%)

Source: Information was provided by the Committee on the Legal Statistics and Special Accounts of the State Office of Public Prosecutor of the Republic of Kazakhstan at the request of the UNODC for the preparation of the World Drug Report 2024.

The media has increasingly focused on women's involvement in drug-related crimes. Over the past two to three years, there have been more reports of women distributing hidden drug stashes. However, comprehensive studies on this issue are still lacking, and the available research data is outdated. Despite being obsolete, these findings indicate that women are significantly vulnerable to drug offenses. According to Penal Reform International, as of 2013, approximately one third of female prisoners were convicted of drug-related crimes (Penal Reform International 2014). Unlike the legislation regarding the younger population, gender-specific considerations are not highlighted in Kazakhstan's drug prevention policies or anti-drug laws. The country adopted a gender policy concept in 2016, but it mainly addresses gender-based violence and women's reproductive health (Edict of the President of the Republic of Kazakhstan 2016). The Global Gender Gap Report ranks Kazakhstan 76th out of 146 countries, with a score of 0.710, the highest among Central Asian countries (Pal et al. 2024). The nation achieved a high score of 0.976 in the area of survival and health. However, it performed less well in the areas of political empowerment and economic participation and opportunity (Bizhanova 2024). This index, based on various economic indicators, reflects significant gender inequalities, especially for women facing social, economic, and cultural vulnerabil-

ies, such as those living with HIV or using drugs. According to the latest report of the Eurasian Women's Network on AIDS (EWNA), Kazakhstan lacks gender-specific legislative approaches to address the issues faced by vulnerable female groups, particularly women who use drugs (Eurasian Women's Network on AIDS 2023).

Global studies show that, compared to men, women have less frequent contact with the justice system (UNODC 2018b; Rodriguez & Griffin 2005). There are several reasons for this, including not only a lower likelihood of becoming involved in drug trafficking but also the specific roles that women play in this process. According to the 2024 World Drug Report, women are less frequently involved in leadership positions within organised criminal groups. They are more often found in supporting roles at lower levels, such as drug couriers and advertisers. National data on Kazakhstan is unfortunately very limited. However, based on the analytical study conducted as part of the 2024 World Drug Report, which also analysed the situation in Kazakhstan, it was found that women are more likely to be involved in the synthetic drug business compared to the distribution of traditional plant-based drugs. The same publication notes the active involvement of youth in the distribution of synthetic drugs. In this case, the primary motive for committing these crimes is economic, driven by the desire for quick earnings. Another group of women and youth consists of those who already have experience with active consumption of synthetic drugs. They willingly engage in distribution to obtain free doses of the drugs. However, this latter group, when violating work discipline or attempting to appropriate goods, can become victims of contract killings, beatings, and blackmail by the administration of drug shops or the criminal organisations that control drug supply channels (UNODC 2024).

The use of youth and women as drug couriers exists to divert police attention, as these groups have not traditionally aroused suspicion during street patrols. However, the national law enforcement agenda increasingly emphasises that youth are the key group from which drug couriers are recruited. Additionally, young people have a higher likelihood of being arrested for distributing drugs through stash placements. In response, the policy on penalties for such crimes has been tightened, including lowering the age threshold and increasing prison sentences, even for minors. Furthermore, it is worth noting that the active promotion of Kazakhstan's course on harsher penalties for drug trafficking, particularly among minors, is used as a key method of preventive work within this age group. Despite the lack of evidence supporting this approach, it is actively being promoted by the

Ministry of Internal Affairs of Kazakhstan (Turlybek 2023; KAZAKHSTAN TODAY 2024).

However, when discussing drug-related crimes, it is important to note the greater vulnerability of women to victimisation. This becomes particularly relevant and evident in the context of the changing drug scene in Kazakhstan. Women are highly likely to become victims of violence, blackmail, and exploitation by their sexual partners when using synthetic drugs. This information is highlighted in several analytical publications. In November 2023, an assessment was conducted in Central Asia by EWNA regarding the unmet needs of people with experience of using synthetic drugs. It was found that the context and patterns of drug use varied between countries, but throughout the region, women were particularly subjected to significant violence. Many respondents refrained from seeking help after experiencing violence due to fears of exposing their identity or substance use, feelings of shame, and a lack of awareness about available resources or organisations that could assist them. In some instances, individuals perceived their substance use as the reason for the violence inflicted upon them. This assessment highlights that synthetic drug users frequently endure highly negative encounters with law enforcement, primarily due to strict drug policies. Participants reported various forms of police violence, and those subjected to abuse and mistreatment often lack access to justice or believe it is unattainable. They are frequently stigmatised as criminals, particularly if they have previous interactions with the law. These data, collected among the community of people using synthetic drugs, show that women continue to remain a social group at risk of rights violations, violence, greater stigmatisation, and a higher likelihood of being excluded from receiving help and support from the state (EWNA 2023). An analytical study conducted in Eastern Europe and Central Asia (EECA) in 2020 shows similar data. Drug-related offenses significantly contribute to the incarceration of women in EECA. The criminalisation of drug use extends beyond prison sentences. It impacts the daily lives of women who use drugs, compelling them to adopt behaviours and lifestyles that minimise police interaction and help them remain unnoticed by the system to safeguard their freedom (Matyushina-Ocheret 2020).

Just like women, youth demonstrate significant vulnerability to the consequences of the rising availability of synthetic drugs in Central Asia. According to the World Drug report 2024, compared to adults, young people are perceived as having less interaction with the criminal justice system for drug-related offenses, except for offenses related to possession.

Globally, Kazakhstan, like other Central Asian countries, stands out for the greater vulnerability of its adolescent generation to drug threats, such as criminal behaviour related to drug distribution. A current surge in the number of minors involved in drug trafficking in Kazakhstan highlights a concerning social issue that necessitates a re-evaluation of policies with regards to both prevention and the provision of social assistance at the levels of education and family. To the best of our knowledge, there is a significant gap in the research on the social profile of minors and youth involved in drug-related crimes. Consequently, there is also a lack of accurate and balanced assessments of the needs of this demographic. It can be assumed that punitive policies towards minors may impinge upon a cascade of subsequent social and economic difficulties in the reintegration of these individuals upon their release from prison and transition to communities.

The rising involvement of youth and women in drug-related crimes in Kazakhstan underscores a critical social challenge that demands comprehensive and targeted policy responses. Despite existing prevention programmes and stringent penalties, the persistent increase in synthetic drug trafficking among these groups highlights the need for more effective and inclusive strategies. Addressing this issue requires a multi-faceted approach that includes gender-specific preventive measures, enhanced social support systems, and comprehensive research to better understand and meet the needs of vulnerable populations. By focusing on both punitive and rehabilitative measures, Kazakhstan can work towards reducing the prevalence of drug-related offenses and supporting the reintegration of affected individuals into society.

Treatment Demand Among Youth and Women: Addressing the Growing Need

Synthetic drug use among youth and women in Kazakhstan presents a growing and alarming trend that calls for urgent attention and action. This section delves into the dynamics of synthetic drug consumption and its proliferation within these vulnerable demographics. We will explore the socio-economic factors driving the increase in synthetic drug use, the appeal of these substances to young people and women, and the severe consequences they face, including health risks, social stigma, and legal repercussions. By examining current policies, prevention programmes, and statistical data, this section aims to provide a general overview of the com-

plexities surrounding synthetic drug use and the critical need for targeted interventions to mitigate its impact on Kazakhstan's youth and women.

Currently, the issue of youth addiction is predominantly examined through the use of NPS, commonly known as 'synthetics'. Media reports first highlighted the emergence of synthetic drugs in Kazakhstan in the late 2000s (Kosenov 2009), a timeline supported by researchers who gather data from individuals within the NPS community and NGOs offering related services (Kurcevič/Lines 2020). Another growing concern is the misuse of pharmaceutical drugs among young people, including substances like tropicamide, somnol, pregabalin (Lyrica), and tramadol (Sputnik Kazakhstan 2018). To address this, tramadol was subjected to strict control and monitoring from March 2023, significantly restricting its sale in pharmacies (Decree of the Government of the Republic of Kazakhstan 2023b). Unauthorised sales of tramadol are now treated as narcotic drug distribution and penalised accordingly. However, other pharmaceuticals like tropicamide, Lyrica (pregabalin) is only classified as potent substances, with violations resulting in fines or license revocations rather than criminal penalties. This regulatory gap allows these drugs to remain widely accessible through pharmacies, including to youth.

Estimating the extent of NPS use among Kazakhstan's youth and understanding their gender profiles is challenging due to limited research. Initial surveys in 2012 found no NPS use among youth, with cannabis being the most common drug, with 11.2% of young people using it (Baykenov 2014). More recent data indicates that 3.1% to 11.6% of young people aged 13–18 have used drugs other than alcohol and tobacco, with 1.7% to 6.4% reporting drug use in the past year. A 2018 survey identified 0.6% of adolescents using synthetic cannabinoids and 0.3% using amphetamine-type stimulants (Me at al. 2019). Among young adults aged 18–34, the lifetime prevalence of NPS use was 6.3%, peaking at 8.0% in the 25–29 age group, with synthetic cannabinoids and stimulant use reported at 4.1% and 3.5%, respectively. Regional disparities were noted, with North Kazakhstan and Almaty showing high synthetic cannabinoid use, while Astana and East Kazakhstan reported higher stimulant use (Negay et al. 2019). In 2022, a survey revealed that 2.2% of youth aged 14–35 had used synthetic drugs, with peaks in the 14–18 and 24–28 age groups (Akhantaeva et al. 2023). Among youth not in employment, education, or training (NEET youth) aged 15–28, 5.9% frequently used synthetic drugs while 68.8% had never used them, a lower rate compared to traditional drugs (Scientific Research Centre 'Youth' 2022).

An internet survey conducted among 5,000 young people aged 14 to 35 in Almaty revealed that 8.7% had experimented with at least one drug, predominantly synthetic drugs like speed or spice. Approximately one third of the participants reported that drugs were easily accessible in their city, with 43.8% viewing drug use as a fashionable trend. 10% of respondents expressed interest in trying drugs as a new experience. Nearly 40% believed that non-injected drugs were non-addictive. While many youth appeared nonchalant about drug risks, they acknowledged the severity of the issue, with a quarter recognising drug addiction as a significant problem in their neighbourhoods and one in ten worried about the presence of drug dealers. Additionally, 44% highlighted a lack of recreational centres in their communities (Public Foundation 'Information and Resource Centre' 2022).

To date, there are no comprehensive studies specifically investigating the motives and determinants of NPS use among youth in Kazakhstan. However, sporadic sociological surveys and reports provide some insights into possible motivations. These motivations can be categorised into three groups: personal, economic, and those related to new marketing features of NPS distribution and acquisition, such as easy access, non-contact delivery, and pseudo-legality (Kurcevič/Lines 2020). According to a report by the Republican Scientific and Practical Centre of Mental Health (2022), half of the young people with NPS experience cited not only the need for euphoria but also self-medication attempts as reasons for their use. Additionally, one third of these respondents highlighted the affordable price of NPS as a significant factor. Regardless of their experience with NPS, most surveyed youth emphasised the easy availability of these substances as a key factor in their popularity. As of 2019, a single dose of various NPS available to young people cost up to 2,000 tenge (USD 30). Respondents reported acquiring these substances through several channels: dealer acquaintances (30.5%), social networks like Telegram (29.5%), shop websites (12.6%), drop boxes (11.6%), and internet forums (6.3%) (Negay et al. 2019).

Gender disparity in NPS use is less pronounced compared to traditional drugs. The 'EPI-NPS-KZ' study among young respondents (18–34 years old) found that women were three times less likely to report using traditional drugs, but for NPS, the ratio was one woman for every two men. The difference between male and female respondents was particularly narrow for synthetic stimulant use. Lifetime use of synthetic cannabinoids was reported by 1.5% of young women, while synthetic stimulant use was as high as 2.7% (Negay et al. 2019). By 2022, this gender disparity in NPS prevalence had further decreased; for synthetic cannabinoids, the ratio was 1:3.6,

and for stimulants, it was 1:1.6. A study conducted among young people in 2022 showed that women were less likely to be aware of the psychoactive substances prevalent in Kazakhstan. The age of first use of synthetic drugs did not differ between men and women. The ways of synthetic drugs administration also did not differ by gender. The methods of acquiring drugs did not differ statistically; however, it was found that women more often used contactless methods of obtaining goods, such as through drop points. The monetary expenditure for purchasing a single dose of drugs also did not differ by gender. Interesting gender differences were found in the clinical symptoms of intoxication with synthetic drugs. Women, when intoxicated, more often experienced dizziness, less frequently felt a surge of energy or euphoria, and were less likely to feel calm and serene. Women experienced an increase in sexual desire to the same extent as men, which should be considered when assessing the degree of sexualised use of psychoactive substances in Kazakhstan and determining the associated risks. Within 24 hours after intoxication, women were more likely to continue experiencing symptoms such as nausea and vomiting. This suggests a need for gender-specific medical care and support strategies in managing the effects of synthetic drug use. No differences were found between genders regarding the motives for using synthetic drugs. There were also no differences in how men and women assessed the availability of synthetic drugs and the ease of acquiring them in their cities of residence (Republican Scientific and Practical Centre of Mental Health 2022).

Additional epidemiological data from treatment utilisation indicators shows that 91% of registered patients with substance use disorders (SUDs) were male. However, in the 14–28 age group, this difference was less pronounced; here, 87% of registered patients with SUDs were male and 13% were female. Among youth with stimulant use disorder, the gender disparity was even smaller, at 69% male and 31% female. Routine state reports lack gender-specific data on inpatient care and bed capacity, limiting the analysis of treatment capacities for women with drug addictions, including NPS addictions (Altynbekov et al. 2023). According to the EPI-NPS-KZ data from 2018, males made up 75% of the treatment cases. However, women under 25 were twice as likely as men under 25 to be hospitalised for NPS addictions. Women were also more likely to enter treatment programmes for stimulant use disorders, with 74.6% of female patients compared to 51.6% of male patients. Additionally, women reported experiencing psychotic episodes during NPS use more frequently than men, with rates of 30.5% for women versus 17% for men (Negay et al. 2019).

According to official national statistics obtained from the country's healthcare organisations, there has been an increase in the rate of primary detection of mental and behavioural disorders due to the use of psychoactive substances among women (19.8 per 100,000 female population in 2021, and 20.6 in 2022). A similar situation is observed among adolescents aged 15 to 17: the rate of primary detection of drug addiction was 6.6 per 100,000 in this age group in 2021, and in 2022, the rate increased to 7.4 per 100,000. It is worth noting that this indicator varies greatly, and not all regions experience the acute problem of adolescent psychoactive substance use. The detection rate among adolescents is higher than the national level in three regions, namely Pavlodar (27.9), Kostanay (35.8), and East Kazakhstan (97.1) regions (Altynbekov et al. 2023). These regions are located in the north of the country and lie along the drug trafficking route known as the Northern Route (UNODC 2018a), which might be one of the factors contributing to the surge of the problem among minors (drug availability). Another reason could be the rapid increase in access to synthetic drugs, which has been observed over the past ten years and confirmed in studies with adult samples (Prilutskaya et al. 2020).

Valuable data on the specific issues and needs of women using synthetic drugs can be obtained from research conducted by non-governmental organisations among communities of people with lived experience of psychoactive substance use. One of the most recent studies with the freshest data is the analysis of the unmet needs of people who use synthetic and new psychoactive substances in Kyrgyzstan, Kazakhstan, and Tajikistan, conducted by EWNA in 2023 (EWNA 2023a). This assessment revealed a significant number of unmet needs among people with experience of using synthetic drugs. The identified problems included both universal issues, characteristic of individuals with any type of chemical addictions (high stigma, barriers to accessing medical services, criminalisation of drug use), and specific problems experienced only by those with NPS use (low level of services for treating mental complications and NPS overdoses, harm reduction services, and informational support). It was noted that women, compared to other groups, were more vulnerable to insufficient social and medical support services. All female respondents reported a lack of specialised treatment programmes for women or crisis centres. Additionally, it was found that women were at greater risk of experiencing physical, psychological, and economic violence. The stigma against women who use synthetic drugs was higher compared to men. This stigma is a key barrier to women receiving timely assistance.

Similar data were highlighted in the World Drug Report 2024, which emphasised the global trend of increased stigmatisation of women, extremely low rates of their seeking social and medical support, and a high percentage of comorbidities, including mental disorders (UNODC 2024). Data from the analysis of the situation in seven countries worldwide showed that the motives for using new psychoactive substances differ among women and men, especially in older age groups. For example, women are more likely to use synthetic drugs to overcome depression and to increase their productivity at work and in managing household duties. Among younger women, these differences in motives compared to men may diminish and are more often associated with recreational desires for pleasure, including sexual gratification (UNODC 2024).

We will now focus on analysing the data set provided by the Republican Scientific and Practical Center for Mental Health, obtained through the clinical-epidemiological study on the prevalence of new psychoactive substances in Kazakhstan (Prilutskaya et al. 2024). The database contains cases of inpatient treatment for NPS addiction across all regions of the country during the years 2018–2021. During the analysed period, the proportion of women receiving treatment was 14%. The average age of women seeking inpatient treatment was lower than that of men: 30.4 ± 8.3 years compared to 32.4 ± 7.5 years. Accordingly, women sought help earlier, with an average of eight years passing from the time of first drug use to the first hospitalisation, compared to ten years for men. However, this period was extremely long for both men and women. This indirectly indicates insufficient coverage of treatment services for people with problematic NPS use. Among the groups of synthetic drugs, women more frequently than men had problems with synthetic stimulants, which were accompanied by higher risks of overdoses, psychotic complications, and risky sexual behaviour. In nearly 40% of cases, women administered synthetic stimulants via injection, compared to 33% among men. Every fifth woman who sought medical help showed signs of psychotic disorders, indicating significant somatic and mental health issues that prompted them to seek medical assistance. Among men, this figure was slightly lower at 18%. Notably, women showed a higher seroprevalence rate for HIV and hepatitis C. Among women, a positive HIV status was recorded almost twice as often than among men: 15.8% compared to 8.9%. Every fourth woman was seropositive for hepatitis C (Republican Scientific and Practical Centre for Mental Health 2022).

The data suggest several critical implications. Women, on average, seek inpatient treatment for synthetic drug dependence at a younger age than

men, indicating that women might experience more severe or rapidly progressing health complications, making them more vulnerable. The prolonged delay between initial drug use and seeking treatment for both men and women highlights a significant gap in early intervention and support services, emphasising the need to enhance the reach and effectiveness of these services for individuals with problematic NPS use.

Women were more prone to using synthetic stimulants, facing higher risks of overdoses, psychotic complications, and risky sexual behaviour. This finding underscores the necessity for targeted harm reduction strategies and mental health support specifically designed for women. The high incidence of psychotic disorders among women seeking medical help (20%) underscores the severe mental health impact of synthetic drug use on women, necessitating specialised psychiatric care and support services. The higher rates of HIV and hepatitis C among women point to a critical public health concern, necessitating targeted prevention, testing, and treatment programmes for women who use synthetic drugs. In summary, even the routine treatment data highlight the necessity for gender-specific interventions, improved early intervention and treatment services, enhanced harm reduction strategies, and comprehensive healthcare support to address the unique needs and higher risks faced by women using synthetic drugs.

Conclusions and Recommendations

The increasing involvement of youth and women in synthetic drug use and related crimes in Kazakhstan is a critical issue that requires immediate and multifaceted intervention. The current trends indicate a significant rise in synthetic drug consumption among these vulnerable groups, driven by socio-economic factors, easy accessibility, and a lack of awareness about the associated risks. Addressing this issue effectively requires a comprehensive approach that combines education, treatment, policy reform, and community support.

First and foremost, enhancing awareness and education is essential. Targeted educational programmes must be developed to inform youth and women about the dangers of synthetic drugs. These programmes should be integrated into school curriculums and community outreach efforts, utilising platforms popular among young people to maximise their impact. Additionally, addressing the stigma associated with drug use is crucial.

Reducing stigma can encourage individuals to seek help without fear of judgment, thus improving access to treatment and support services.

Improving the availability and quality of treatment services is another critical area of focus. The current treatment infrastructure must be expanded to meet the growing demand, with particular attention paid to the needs of young people and women. Gender-sensitive treatment programmes are necessary to address the distinct physiological and psychological impacts of synthetic drugs on women. Furthermore, increasing the availability of harm reduction services, such as needle exchange programmes and safe consumption spaces, can mitigate some immediate health risks and provide a pathway to more comprehensive treatment.

Policy reform plays a vital role in addressing synthetic drug use. While strict regulations and penalties for drug distribution are necessary, it is equally important to focus on rehabilitation rather than punishment for personal drug use. Decriminalising personal drug use can reduce the stigma and barriers to seeking treatment, making it more likely that individuals will access the help they need. Policies should also address the specific vulnerabilities of women, who often face higher risks of violence, exploitation, and health complications.

Collaboration between various stakeholders is essential to develop and implement effective strategies. Government agencies, non-governmental organisations, and international bodies must work together to share resources, knowledge, and best practices. Community organisations, particularly those that interact directly with affected populations, play a crucial role in ensuring that interventions are culturally sensitive and tailored to the needs of different communities within Kazakhstan.

Ongoing research and data collection are critical to understanding the evolving landscape of synthetic drug use. Regular surveys and studies can provide valuable insights into trends and emerging issues, enabling policy-makers and healthcare providers to proactively adapt their approaches. This evidence-based approach ensures that interventions remain relevant and effective, ultimately reducing the prevalence and impact of synthetic drug use among Kazakhstan's youth and women.

In summary, addressing the synthetic drug crisis in Kazakhstan requires a coordinated and comprehensive effort. By enhancing education and awareness, improving treatment accessibility, enacting supportive policies, fostering collaboration, and maintaining robust research efforts, it is possible to mitigate the impact of synthetic drug use on vulnerable populations. This multifaceted approach will promote healthier, safer communities

and support the reintegration of affected individuals into society, ultimately reducing the prevalence of drug-related offenses and improving public health outcomes.

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9. Exploring the Intersection: New Psychoactive Substances, Gay, Bisexual and other Men who have sex with men, and Chemsex in Central Asia

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1. Introduction

1.1 Definition of Chemsex

Humanity and substance use have been intertwined throughout history, with various substances playing a critical role in cultural, religious, and medical practices. From ancient Mesopotamia and Egypt to the indigenous tribes of the Americas, psychoactive substances have been used for spiritual enlightenment, religious ceremonies, medicinal treatments, and recreational enjoyment. Substances such as alcohol, cannabis, and opium have facilitated connections with the divine and communal bonding, as seen in Vedic rituals and Native American ceremonies. Medicinally, ancient texts such as the Ebers Papyrus and Ayurveda document the use of plants and compounds to treat disease, influencing modern pharmacology. The recreational use of drugs for altered states of consciousness has left its mark socially, culturally, and economically, from trade routes to legal systems. This history demonstrates the impact of substance use on human civilisation.

Not surprisingly, the GBMSM community (referring to gay, bisexual and other men who have sex with men) has a long and well-documented history of substance use, including recreational drug use (Buckland, 2002; Garratt, 1998). Substance use patterns among GBMSM populations are shaped by complex social determinants, including systematic discrimination, social exclusion, and the need for community belonging (Hatzenbuehler et al. 2011; Race et al. 2016). Historically, gay venues and nightlife spaces have served as crucial sites for community formation and identity expression, where recreational substance use often becomes intertwined with socializing practices (Buckland 2002). The consumption of various substances, particularly stimulants and club drugs, functions both as a coping strategy and a means of enhancing social and sexual experiences (Buckland 2002;

Waltz 2011). Moreover, minority stress theory provides a theoretical framework for understanding how chronic exposure to stigma and internalized homonegativity (negative attitudes towards one's identity) may contribute to elevated rates of substance use within GBMSM communities (Meyer 1995). Minority stress manifests in three distinct ways among marginalized populations. At its most basic level, it appears as environmental stress - the everyday challenges that anyone might face, from job loss to relationship difficulties. The second layer runs deeper: the direct experiences of prejudice and discrimination that minority individuals encounter in their daily lives. The third and perhaps most insidious form is internal - the negative self-perceptions that develop from living in a hostile social environment (Meyer 1995; Meyer & Frost 2013). For GBMSM, this stress takes concrete forms: family members who cut off contact due to sexual identity, workplace discrimination, social isolation, and systematic exclusion from support systems. These experiences can create a persistent state of hypervigilance and stress that reverberates through their health and well-being (Flentje et al. 2020; Pachankis et al. 2020). The impact extends beyond immediate psychological distress, increasing vulnerability to HIV infection, other sexually transmitted infections and compromising emotional regulation, often leading individuals to seek relief through illicit substance use (Flentje et al. 2020; Hakim 2019). In their search for connection and coping mechanisms, some GBMSM turn to multiple sexual partnerships or substance use - behaviours that, while potentially providing temporary relief, can further complicate their health challenges (Mowlabocus 2021).

1.2 Historical Context of Chemsex

The digital age has fundamentally reshaped human connection, intimacy and the pursuit of pleasure. Within this transformed landscape, the relationship between technology and substance use has become increasingly complex, particularly in sexual contexts. What once required face-to-face interactions and established social networks can now be initiated by a simple swipe or tap on a smartphone screen. Mobile applications and digital platforms have become more than just tools for communication - they've become key drivers of behavioural change, catalysing the emergence of what is now known as chemsex (Stuart 2013, 2019). This technological transformation is particularly evident in the GBMSM community, where apps such as Hornet, Grindr and Scruff have revolutionised social and

sexual networking. These platforms have developed their own coded language - seemingly innocent emojis such as diamonds, pills, snowflakes, cats or clouds in user profiles often signal interest in chemsex, creating an underground system of communication hidden in plain sight. Platforms are moving beyond simple matchmaking to become sophisticated ecosystems where users navigate both sexual encounters and substance use through these subtle signals (Stuart 2016, 2019). The integration of geolocation technology has dramatically simplified the process of finding nearby partners interested in chemsex, effectively removing traditional barriers to these encounters (Holloway 2015). What once required knowledge of specific venues or social circles can now be arranged with a few taps on a screen, contributing to the gradual normalisation of chemsex within certain communities (Alarcón-Gutiérrez et al. 2022; Holloway 2015). In parallel to these dating platforms, a broader virtual ecosystem has emerged through online forums and social networks. These virtual spaces function as knowledge repositories where participants share experiences, exchange harm reduction strategies and discuss substance effects in remarkable detail. Protected by anonymity, users freely discuss practices that may carry significant stigma in their daily lives (Patten et al. 2020). This intersection of technology, sexuality and substance use presents a complex challenge for researchers: how can we fully understand and define chemsex in this rapidly evolving digital landscape?

Chemsex is the use of illicit drugs before or during sexual intercourse to increase arousal, facilitate and enhance the sexual experience, and increase pleasure (Bourne et al., 2015; Stuart, 2013). Chemsex is a specific practice exclusive to GBMSM, although sexualised drug use can be observed among heterosexual individuals (Miltz et al., 2021). The difference between chemsex and sexualised drug use is described by Davide Stuart as a result of the uniqueness of gay sex and gay culture (Stuart, 2013). It is this uniqueness that defines the chemsex phenomenon that has emerged in recent decades. Some of this uniqueness relates to cultural factors that have affected the enjoyment of sex between men (Stuart, 2013, 2016, 2019). For example, societal attitudes toward homosexuality—especially those that express disgust with the gay sex act—can seriously inhibit the enjoyment of gay sex (Stuart, 2019). Cultural and religious attitudes toward homosexuality can also seriously inhibit enjoyment. Another factor described above is the technological revolution that has occurred with the advent of hook-up apps and smartphone technology. Finally, a gay-specific culture of rejection associated with tribes, body shape, race, sexual performance expectations, and

the ability to ‘market’ oneself to be successful within that culture seriously impacts the experience and enjoyment of gay sex (Stuart, 2013, 2016, 2019). In this context, chemsex is a tool for coping with stressors that inhibit pleasure and confidence, as well as a tool to help individuals build social and sexual networks (Stuart 2013).

2. Relevance and Rising Trends Globally and in Central Asia

The global prevalence of chemsex varies widely by region, influenced by cultural, social, and economic factors (Coronado-Muñoz et al., 2024; Maxwell et al., 2019; Wang et al., 2023). While comprehensive data is limited, several studies and reports provide insight into the patterns and prevalence of chemsex in different parts of the world. In Europe, chemsex is particularly prevalent among GBMSM in urban areas (Schmidt et al., 2016). Cities such as London, Berlin, and Amsterdam have reported high rates of chemsex, often associated with the use of drugs such as methamphetamine, gamma hydroxybutyrate/gamma butyrolactone (GHB/GBL), and mephedrone (Blomaard et al., 2023; Schmidt et al., 2016; Sewell et al., 2018; Sewell et al., 2019). Surveys and studies have shown that a significant proportion of GBMSM engage in chemsex, with varying frequencies. For example, a study in London found that approximately 30% of GBMSM attending sexual health clinics had engaged in chemsex in the past year (Sewell et al., 2018). In Asia, the prevalence of chemsex is less documented but is emerging as a public health concern in countries such as Thailand, China, and Malaysia (Maviglia et al., 2022; Piyaraj et al., 2018; Wang et al., 2023). The cultural stigma associated with both homosexuality and drug use makes it difficult to accurately assess prevalence. However, anecdotal evidence and smaller studies suggest that chemsex is present and may be increasing among GBMSM populations in large urban centres (Guadamuz & Boonmongkon, 2018; Lasco & Yu, 2024; Piyaraj et al., 2018; Tan et al., 2018). By contrast, Central Asia is a region with a lack of research on substance use, with almost no data on substance use among GBMSM (Lee et al., 2022). Only a few studies conducted in the last decade have attempted to better understand substance use behaviours among GBMSM, and most, if not all, of the studies were conducted in Kazakhstan (Berry et al., 2012; Lee et al., 2022; Paine et al., 2021). The most recent study found that approximately 60% of GBMSM study participants smoked marijuana, and 20% and 11% reported using stimulants and club drugs, respectively (Lee et

al., 2022). Nearly half of them (45%) reported polydrug use, meaning that they typically use two or more substances (Lee et al., 2022).

The GBMSM community in Central Asia is a diverse and heterogeneous group that includes individuals from a wide range of backgrounds and experiences. In the Central Asian countries of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan, accurately estimating the size of the GBMSM communities is challenging due to the pervasive stigma and discrimination directed at these individuals. Although there is limited evidence to accurately estimate the size of the GBMSM population, some studies have demonstrated not only the existence of this social group, but also a significant number of individuals who are stigmatised and discriminated against because of their behaviour (Wu et al., 2017). This stigma often forces members of the GBMSM community to hide their identities, further complicating efforts to accurately measure their population.

Despite facing significant social and legal barriers, GBMSM communities in these countries persist and actively engage in various forms of activism and mutual support. These communities often come together to address common issues, advocate for their rights, and provide essential support to each other in an environment where they often face ostracism and legal persecution. Activism within these communities can take many forms, including grassroots organising, advocacy for legal reform, health education, and the creation of safe spaces for social interaction and support. Mutual support networks are particularly important to the well-being of GBMSM persons in Central Asia. These networks provide emotional support, share vital health and safety information (regarding substance use or sexual health), and offer a sense of belonging and solidarity in the face of widespread societal rejection.

3. Influence of Tradition and Religious Beliefs on Substance Use Behaviour, Chemsex, and Health Outcomes

Historically, Kazakhs and other Central Asian ethnic groups and nations have identified as predominantly Muslim. With Kazakhstan's independence, religious restrictions imposed by the Soviets were largely lifted, and as a result, interest in Islam has grown (Akiner, 2003). Islam is an important part of Central Asian culture and tradition, influencing individual and collective identity, gender norms, sexuality, and sexual behaviour (Ro'i & Wainer, 2009). Decades of Soviet rule, as well as pre-Soviet nomadic

traditions, have shaped current forms of Islamic practice in Central Asia (El-Bassel et al., 2015; Shaw et al., 2017).

There are some traditions that are specific to Central Asia. For example, ‘*uyat*’, or the so-called culture of shame. *Uyat* is a powerful regulatory mechanism in Central Asia, defined by Shelekpayev as ‘a set of repressive practices related to individuals or groups and their reactions to certain events, including condemnation of apparent or perceived misconduct, guilt and imposition of guilt, body shaming, victimization and victim blaming, invention of (false) morality—which can be manifested through emotional and physical abuse’ (Shelekpayev, 2020).

Several studies have found that *uyat* is detrimental to health outcomes (Caron & Orlov, 2022). It has been shown elsewhere (Caron & Orlov, 2022) that the fear of being labelled ‘*uyat*’ played a detrimental role during the COVID-19 pandemic. For example, many people in Kazakhstan refused to comply with government orders to avoid large gatherings (family dinners, weddings, or funerals) in order to prevent the spread of the coronavirus and avoid overwhelming the healthcare system. One of the reasons identified by Caron and Orlov was the fear of being shamed for declining an invitation from family, relatives, or friends (Caron & Orlov, 2022). This emphasises that social image and public opinion about an individual’s behaviour can be far more important than physical well-being and safety. Thus, a sick person cannot be freed from the social expectations and norms that exist in society without running the risk of being ostracised. Surprisingly, this view of health and illness, as well as the role of the sick person in society and the obligations expected of them, is quite different from Parsons’ ‘sick role’ model, which is widely accepted in the West. According to Parsons’ model, the sick person can expect to be granted two rights (Parsons, 2013). The first right states that the sick person is temporarily excused from performing ‘normal’ social roles (such as going to work or participating in community activities). The more severe the illness, the greater the exemption (Parsons, 2013). The second right is that the sick person should not be blamed for his or her illness and should be cared for by others until he or she can resume his or her normal social role (Parsons, 2013). Separately, Karlygash Kabatova, an independent researcher and advocate for youth sexuality education, described the results of her qualitative study aimed at exploring the demand for sexuality education among Kazakh youth and parents. She found that *uyat* still discourages parents from taking a more active role in educating their children about

safer sex, contraception, HIV, and sexually transmitted infections (STIs) (Kabatova, 2022).

The role of religion and tradition in HIV dynamics remains unclear. A substantial body of literature shows that lower levels of HIV prevalence are associated with Islamic sociocultural influences and religious participation among Muslims (Adamczyk & Hayes, 2012). In particular, circumcision and lower levels of alcohol consumption have been associated with reduced sexual HIV risk (Kamarulzaman & Saifuddeen, 2010; Obermeyer, 2006). However, some other studies have reported mixed results or an association between religion and increased sexual behaviours associated with increased risk for HIV, particularly among GBMSM (Nelson et al., 2017; Pan et al., 2016). Results from a study conducted in Kazakhstan to examine the association between religious practices and sexual behaviour among male participants showed that higher levels of religiosity were associated with lower levels of sexual HIV risk (Shaw et al., 2020). Spiritual practices such as weekly attendance were associated with a lower likelihood of having anal sex with a male partner, but a higher likelihood of having multiple male partners (Shaw et al., 2020). The authors describe the limitations of their study, noting that structural pathways such as religious climate, social conditions, and institutional policies that influence sexual behaviour remain unclear (Shaw et al., 2020). As we can see, there is a clear lack of information on the impact of both religious and nomadic traditions such as *uyat* on the transmission of HIV and other STIs, and it is difficult, or almost impossible, to describe their role in the context of sexual behaviour.

Finally, it is very important to mention the role of patriarchal societies, which have traditional notions of masculinity that strongly influence behaviours, including substance use and sexual practices such as chemsex. Masculinity often emphasises traits such as dominance, emotional suppression, and risk-taking, which can lead men to engage in chemsex as a means of asserting their identity and proving their masculinity (Mowlabocus, 2021; Pienaar et al., 2020). The pressure to conform to these masculine ideals can lead to the pursuit of increased sexual experiences and the use of drugs to enhance and sustain performance, increase arousal, and prolong sexual encounters.

Patriarchal norms also contribute to the stigmatisation and marginalisation of non-conforming sexualities and behaviours, driving practices like chemsex underground. The fear of judgment and ostracism within these societies can prevent individuals from seeking help or openly discussing their behaviours (Fleming et al., 2016). This clandestine nature of chemsex

increases the potential risks associated with it, including unsafe sexual practices, higher rates of HIV transmission, and other health complications (El-Bassel et al., 2015; Fleming et al., 2016; Jacques-Aviñó et al., 2019). The lack of open dialogue and accessible support services exacerbates these risks, as individuals are less likely to receive accurate information and harm reduction resources.

Finally, the intersection of masculinity and patriarchal expectations can create an environment where vulnerability and emotional expression are discouraged. This can lead men to use drugs as a coping mechanism for underlying mental health issues such as depression, anxiety, and internalised homophobia (Nimbi et al., 2021; Weatherburn et al., 2017). In these contexts, chemsex becomes a way to escape emotional distress and conform to societal expectations of strength and stoicism. While the global understanding of and connection between patriarchal norms and chemsex is well documented, there is limited research on this relationship in the Central Asian context (Deimel et al., 2016; Leyva-Moral et al., 2023; Lunchenkov, Rinne-Wolf, et al., 2024; Palmer et al., 2023; Tan et al., 2018; Weatherburn et al., 2017). The only study from the region to explore the motivations and perceived risks of chemsex among GBMSM was conducted in Almaty, Kazakhstan, and published in 2024 Lunchenkov, Cherchenko, et al. (2024). Through in-depth interviews with 21 participants, the researchers found that chemsex served multiple purposes - as a coping mechanism for minority stress, a source of sexual liberation, and a way to build social connections - while also posing significant health and safety risks. The study revealed how chemsex in Kazakhstan is shaped by social stigma and homophobia, with participants seeing it as both an escape from social constraints and a risky but meaningful way to explore their sexuality and find community.

Nevertheless, it is reasonable to hypothesise that similar dynamics exist in other Central Asian countries. The influence of patriarchal norms likely plays a comparable role in shaping chemsex behaviours, driven by societal pressures, stigma, and traditional notions of masculinity, where gay sex is perceived as something forbidden and highly stigmatised.

4. Popular Substances and Their Prevalence

The following substances are popular among GBMSM communities in Central Asia.

Mephedrone: mephedrone, a synthetic stimulant belonging to the cathinone class, has become a prominent substance in the chemsex scene, especially among GBMSM communities (Schifano et al., 2011). Known for its euphoric and stimulating effects, mephedrone is often used to enhance sexual experiences, increase sociability, and prolong sexual activity (Schifano et al., 2011). However, its use is associated with significant health risks, including cardiovascular problems, mental disorders, and a high potential for addiction (Winstock et al., 2011; Wood & Dargan, 2012). In the context of chemsex, the stimulant properties of mephedrone can lead to sexual behaviour with increased likelihood of HIV transmission and other sexually transmitted infections.

Alpha-PHP: alpha-PHP, also known as alpha-pyrrolidinohexiophenone, is a synthetic stimulant of the cathinone class, structurally similar to substances such as alpha-pyrrolidinopentiophenone (alpha-PVP) and methamphetamine (Dinis et al., 2024). Within the context of chemsex, alpha-PHP has gained attention for its potent psychoactive effects, which include heightened arousal, increased energy, and a prolonged sense of euphoria (Malandain & Thibaut, 2023). These properties make it attractive to individuals seeking to enhance their sexual experience and engage in prolonged sexual sessions.

Gamma-hydroxybutyrate (GHB) and gamma-butyrolactone (GBL): this substance has also been described as a drug of choice in chemsex. Several studies have shown that GHB/GBL is a drug that is relatively easy to dose and set up in terms of when users want to feel the effects of this substance (Brennan & Van Hout, 2014). It is well known as a depressant, and some users reported using GHB/GBL as a ‘way to relax’ and ‘calm down’ from various stimulants (Palamar & Halkitis, 2006). GHB/GBL is often reported in connection with chemsex parties for sexual enhancement and in combination with other drugs (Brennan & Van Hout, 2014; Palamar & Halkitis, 2006). It is important to note that in most cases, GHB/GBL is consumed as an additional substance intended to lubricate the acute and severe effects of crystal methamphetamine or other stimulants.

Methamphetamine: crystal methamphetamine is a drug that causes a very rapid release of several neurotransmitters, such as dopamine and serotonin (Kish, 2008). This substance can cause various positive emotions such as euphoria, happiness, and benevolence towards others. Interestingly, crystal methamphetamine releases a much higher amount of dopamine than other drugs and is likely to affect an individual’s perception of reality (Kish, 2008). Crystal methamphetamine remains the perfect drug for gay

and bisexual men (Fawcett, 2016). When combined with a state of sexual arousal and a selective inhibition of feelings a person might have about themselves or the sex they want, it creates an extremely powerful disinhibition. It opens access to hidden emotions, feelings, fantasies, and desires. Simply put, where there is little self-confidence, crystal methamphetamine creates feelings of power. Where there is fear of one's self-identity (sexual or gender), crystal can create more assertiveness and increase self-confidence. (Stuart, 2013, 2015) explained that most of his clients reported crystal methamphetamine use as opening a Pandora's box of sexual fantasies, and some other clients described it as removing the inner boundaries created by society and considered 'normal'.

As we can see, all of the drugs typically used for chemsex have certain similarities. Substances such as methamphetamine, GHB/GBL, mephedrone, and alpha-PHP are chosen for their ability to enhance the sexual experience by increasing arousal, reducing inhibitions, and prolonging sexual activity. They induce intense euphoria, increased energy, and a sense of connection, making them particularly appealing to individuals seeking to enhance their sexual encounters. These drugs pose significant health risks due to their stimulant effects, which can lead to cardiovascular problems such as increased heart rate and hypertension. Their euphoric and disinhibiting properties often lead to sexual behaviour, such as condomless sex and multiple partners, which in some cases might increase the risk of HIV transmission and other STIs, highlighting the importance of harm reduction strategies.

5. Accessibility for Harm Reduction Programmes

The GBMSM community's access to harm reduction programmes varies widely across countries in the region. In Kazakhstan, Kyrgyzstan, and Tajikistan, active NGOs and community groups promote GBMSM rights and provide prevention and psychological support. These countries are more open to international cooperation and have a relatively more developed infrastructure for harm reduction programmes.

The situation in Turkmenistan and Uzbekistan is more complex. These states are characterised by strict repressive laws that restrict the activities of GBMSM organisations and create an unfavourable environment for harm reduction programmes. Nevertheless, there are underground initiatives that

seek to provide assistance and support to GBMSM communities, although their activities are often high-risk.

In order to effectively address the problem of new psychoactive substances (NPS) use in the GBMSM community in Central Asia, the following measures should be taken:

1. Harm reduction programmes for the GBMSM community in Central Asia require comprehensive development and implementation. These initiatives must address several key areas: providing education about the risks associated with the use of NPS and chemsex practices, establishing measures to prevent the transmission of sexually transmitted infections, and ensuring access to both counselling services and addiction treatment. Programmes should be designed with cultural competence specifically for the Central Asian GBMSM community, ensuring both accessibility and relevance to their particular needs and circumstances.
2. Supporting non-governmental organisations (NGOs) and activist groups working on the rights and welfare of GBMSM in Central Asia requires a multi-faceted approach. These organisations need sustained financial support, capacity building through training programmes and strategic advice. They also need practical support in organising public awareness campaigns and community events. This comprehensive support enables these organisations to effectively advocate for the rights of GBMSM and provide essential services to their communities.
3. Public awareness campaigns and education programmes serve a dual purpose in addressing substance use within the GBMSM community. First, they educate the public about new psychoactive substances and chemsex practices, while also working to reduce stigma and discrimination against GBMSM people. These initiatives require diverse, targeted messaging strategies for different demographic groups, using a variety of educational materials and communication channels. Programmes should provide comprehensive information on health and social consequences, while maintaining cultural sensitivity and scientific accuracy.

In order to effectively reduce the potential risks associated with NPS use and support the health of the GBMSM community in Central Asia, a number of measures need to be taken. First, it is important to have a seamless syringe exchange programme that provides access to clean injecting equipment for GBMSM who start using NPS and move to injecting salts, as well as to include NPS dependence in opioid substitution treatment programmes. This will help to reduce the risk of transmission of infec-

tions such as HIV and hepatitis and keep community members healthy. Second, non-discriminatory access to pre-exposure prophylaxis (PrEP) for GBMSM people and antiretroviral therapy (ART) for people living with HIV must be guaranteed. Ensuring access to treatment will not only improve people's health but will also help prevent the further spread of HIV in the community. A third important step is to conduct educational programmes about the risks associated with NPS use and the importance of safer sex. These programmes should provide information about ways to protect against infections, as well as the harms that can be caused by NPS, and the resources available for help and support.

In addition, it is necessary to actively support the work of LGBTQ+ NGOs and initiative groups that are engaged in protecting the rights of GBMSM and providing them with support. This includes financial support, as well as cooperation with governmental and non-governmental organisations to develop and implement harm reduction and health support programmes.

Finally, it is important to ensure that the GBMSM community has access to quality and trusted health services, including psychological and mental health care for those experiencing mental health problems due to stigmatisation or use of NPS.

Combining these efforts will help create a more supportive environment for GBMSM in Central Asia, reduce health risks, and improve their quality of life.

5.1 Psychological and Social Support

Psychological and social support is critical to the well-being and health of the GBMSM community in the context of NPS use in Central Asia. Access to counselling, prevention, and therapy is essential for the treatment of addictions and co-occurring mental health disorders that can result from NPS use. Psychological interventions help GBMSM develop strategies for mutual support, improve self-esteem, and regulate emotions.

Support groups also play an important role in ensuring that GBMSM can share experiences, receive peer support, and feel understood and accepted. These groups help individuals to cope with the social pressures and isolation that can result from stigmatisation and discrimination.

Psychosocial rehabilitation programmes that include psychological and social support are essential for successful recovery from addiction and

mental health disorders. They may include individual counselling, group therapy, social coping skills, and stress management training.

Ensuring access to these types of support helps to improve the quality of life of GBMSM, reduce depression and anxiety, and facilitate their successful rehabilitation and social inclusion.

5.2 Legal and Social Measures

Ensuring legal protection and combating discrimination are important for creating equal opportunities and improving the social status of GBMSM. Adopting laws prohibiting discrimination on the basis of sexual orientation and gender identity, as well as ensuring their effective implementation, are integral steps towards creating a more inclusive society.

NGOs play a key role in providing support and protection to the GBMSM community. The support and development of these organisations enables them to provide valuable services such as counselling, psychological support, and legal support, which contribute to improving the living conditions of GBMSM.

Cooperation with international organisations and donors is important for sharing experiences and resources in the field of GBMSM rights and harm reduction. This allows Central Asia to learn from the experience of other countries and receive additional resources to support GBMSM and harm reduction in their communities.

Effective implementation of these measures requires efforts by governments, international organisations, and the public to create a more inclusive and safer environment for all members of society, including GBMSM.

5.3 Medical Interventions

Access to quality, non-discriminatory health services is a critical foundation for the physical and mental health outcomes of GBMSM. Health systems must provide comprehensive services that include prevention, diagnosis and treatment, while actively working to eliminate discriminatory practices. This requires creating health care environments in which GBMSM patients can safely disclose relevant health information and seek care without fear of prejudice or stigma. Healthcare providers need cultural competency training specific to the health needs of GBMSM, while medical facilities need

to establish and enforce non-discrimination policies. Patient confidentiality and respectful communication are essential to building the trust necessary for effective health care.

Training healthcare providers on the health characteristics of GBMSM patients and the specific needs related to GBMSM substance use will help to create a more inclusive healthcare environment. This includes training on sexual orientation and gender identity, as well as on safe drug use practices.

Regular research to monitor the situation of NPS use and chemsex in the GBMSM community will allow for a better understanding of the issues and needs of this group. This will enable the development of more effective prevention, intervention, and health support strategies.

The implementation of these health measures requires collaborative efforts by governmental and non-governmental organisations, health facilities and the public to ensure access to quality and inclusive health services for all members of society.

6. Prevention and Support

6.1 Proposing Strategies and Programmes to Prevent NPS Use and Chemsex Practices in the GBMSM Community

Effective prevention of NPS use and chemsex practices in the GBMSM community in Central Asia requires a comprehensive approach that includes a variety of strategies and programmes aimed at education, medical support, and social inclusion. Key strategies include:

6.2 Education and Outreach Programmes

Public health education for Central Asian GBMSM communities requires a comprehensive, multi-channel strategy. Risk communication campaigns need to clearly communicate the potential dangers associated with new psychoactive substances and chemsex practices, addressing physical and mental health effects, legal implications and social consequences.

Harm reduction education initiatives require detailed instruction in safe practices, particularly in relation to sexual health and substance use. Key components include the correct use of condoms, needle exchange programmes and other preventive measures to reduce disease transmission.

Integrating GBMSM health issues into educational institutions is another key strategy. School and university curricula should include comprehensive sexuality education, substance use prevention and diversity awareness. This educational framework helps to develop critical thinking skills about health choices, while promoting an environment of acceptance and understanding.

The success of these initiatives depends on several factors: cultural appropriateness for different age groups, adequate resource allocation and strong partnerships between local authorities, educational institutions and non-governmental organisations.

6.3 Harm Reduction Programmes

Making PrEP available to GBMSM people is critical for improving their health and reducing the risk of HIV transmission to others. This includes the provision of free or affordable medication, regular medical follow-up, and support from social services.

Providing access to condoms and lubricants: distribution of condoms and lubricants to GBMSM communities helps reduce the risk of transmission of sexually transmitted infections such as HIV, gonorrhoea, and chlamydia. These programmes should be available in places where GBMSM people often congregate, such as support centres, nightclubs, and community events.

It is important that these programmes are regularly evaluated and adapted according to the needs and demands of the GBMSM community. In addition, they should be part of a broad range of harm reduction measures, including HIV testing programmes, health counselling, and psychological support.

6.4 Psychological and Social Support

Psychological and social support are important aspects when it comes to ensuring the well-being and improving the quality of life of GBMSM in Central Asia. Providing GBMSM people with access to psychological counselling and therapy is a critical step in helping them cope with the various stresses, depression, anxiety, and addictions they may face. Such counselling allows them to receive not only professional help, but also

to find understanding and support in dealing with their personal and emotional problems.

An important element is also the establishment of support groups where GBMSM can share their experiences and receive emotional support from other community members and professionals. This helps them to feel less isolated and more included in society and provides practical help in different areas of their lives.

Such measures aim to create a more supportive and caring environment where GBMSM people can feel safe, secure, and respected. This contributes to improving their well-being as well as fostering a more inclusive society where everyone has the right to a happy and healthy life.

6.5 Legal and Policy Measures

In the Central Asian context, legal and policy measures play a key role in ensuring the protection of rights and support for GBMSM persons. Strengthening legal protection for GBMSM persons is a necessary step to combat discrimination at all levels of society. This includes the adoption of laws and regulations aimed at preventing discrimination on the basis of sexual orientation and gender identity, as well as guaranteeing equal rights for all citizens regardless of their sexual orientation.

However, the effective implementation of such legal provisions also requires the support of NGOs that advocate for and assist GBMSM persons. Funding and support for the activities of these NGOs enables them to carry out legal advocacy activities, conduct educational campaigns, provide advice and assistance on various issues, and act as the voice of the GBMSM community to state structures and society at large.

Such legal and policy measures contribute to a more just and inclusive society where GBMSM people can feel protected and respected, and where their rights and interests are recognised and respected by the law.

7. Experience of Project Activities in This Area

This section explores the practical implementation and outcomes of key projects focused on health interventions within the MSM community across Kazakhstan. We highlight the most distinctive initiatives. Each project employs unique strategies to address the health challenges faced by

MSM, from enhancing HIV self-testing accessibility to offering comprehensive support systems, thereby significantly impacting public health outcomes in the region.

GHRCCA (Global Health Research Center of Central Asia) Project in Almaty, Astana, and Shymkent: this research project, conducted in collaboration with Columbia University of New York, aims to study the health of MSM in the three largest cities of Kazakhstan. The project involves collecting data on the prevalence of NPS use and chemsex practices among MSM, as well as assessing factors that influence their health and behaviour. The results of the study are being used to develop more targeted and effective prevention and support programmes (Global Health Research Center in Central Asia 2021).

Amanbol Project on Self-Testing among MSM throughout Kazakhstan: this project aims to increase the accessibility and convenience of HIV testing for MSM throughout the country. Amanbol Project provides free self-testing kits that can be ordered anonymously and received by mail. The project also offers counselling and support for testing and follow-up in the event of a positive result. This initiative helps increase testing coverage among MSM and promotes early detection and treatment of HIV (Amanbol 2024).

CAAP Project in Almaty, from the Elton John Foundation: this project introduces a model of comprehensive assistance for MSM, including case management. The model provides individualised services ranging from medical and psychological care to social support and legal advice. Case managers work with MSM to develop personalised plans to reduce harm, improve access to health services, and enhance quality of life. This model helps MSM cope with a variety of challenges, including NPS use and chemsex (Central Asian Association of People Living with HIV 2024).

These examples of successful projects demonstrate the importance of a comprehensive approach to addressing issues related to NPS use and chemsex among GBMSM communities in Central Asia. They include research, awareness-raising campaigns, provision of medical services to the GBMSM community, and provision of support to NGOs, which allows for the creation of effective prevention and support strategies.

Many NGOs are active and provide information and health and social services for GBMSM people. These organisations conduct campaigns to inform people about the risks facing GBMSM people, offer health consultations, train healthcare providers, and conduct awareness-raising campaigns.

UNAIDS and the Global Fund: these international organisations support projects in Central Asia aimed at combating HIV among GBMSM communities, including harm reduction programmes and educational initiatives.

8 The Role of Education and Social Support

8.1 Education

Education is a powerful tool to combat the problem of substance use and chemsex in the GBMSM community. Increasing awareness among GBMSM people about the risks associated with substance use and chemsex is a primary goal of education programmes. Providing information about safe sexual practices and GBMSM rights helps create informed and responsible behaviour.

Furthermore, inclusive education that includes GBMSM and drug use topics in the curricula of schools and universities plays an important role in reducing stigma and prejudice. It contributes to a tolerant and more informed society where everyone, regardless of their sexual orientation or gender identity, feels recognised and respected.

Such educational and inclusive interventions promote healthy and safe behavioural practices among GBMSM people, as well as create an enabling environment to prevent the use of NPS and chemsex.

8.2 Social Support

Social support plays a key role in improving the well-being and health of GBMSM people, especially in the context of substance use and chemsex issues. The establishment of support groups and peer support networks provides a valuable space for GBMSM people to share experiences, get emotional support, and problem-solve together. These groups help to reduce social isolation, which is often the main reason for drug use as a coping mechanism for stress and discrimination.

Social support also promotes the inclusion of GBMSM people in society, which is important for their physical and mental health. By supporting participation in social activities and providing opportunities to socialise and interact with others, social programmes help to create a supportive

environment for GBMSM people where they can feel accepted and respected. This in turn reduces their vulnerability to drug use and other negative behaviours, such as chemsex, and promotes healthy alternative strategies for adaptation and self-actualisation.

8.3 Interagency Cooperation

Inter-agency cooperation is an important aspect of developing and implementing support and prevention programmes in health and social services for GBMSM persons. Partnerships between governmental organisations, NGOs, and international organisations play a key role in gathering resources, sharing expertise, and coordinating actions for effective problem-solving.

State organisations have significant resources and access to various areas such as healthcare, education, and legal protection. At the same time, NGOs often have specialised expertise and are closer to the community, which allows them to effectively reach vulnerable populations, including GBMSM people. Collaboration between these entities allows them to combine their efforts to create more integrated and tailored support and prevention programmes.

In addition, international cooperation plays an important role in sharing best practices and resources. Cooperation with international organisations and donors allows institutions and organisations in the region to use best practices and innovations from other countries, as well as to receive financial support for the implementation of their programmes. This contributes to improving the quality and effectiveness of support and prevention activities in the GBMSM community in Central Asia.

9. *Prospects for Further Research*

Filling the gaps in research on the use of NPS and chemsex practices among the GBMSM community in Central Asia is a complex task that requires a comprehensive approach and joint efforts by researchers, governmental structures, non-governmental organisations, and community activists. Here is a closer look at the challenges and gaps faced by research in this area:

1. **Data Deficiency:** one of the main challenges is the limited data on the GBMSM community at large in the Central Asian region. There is a lack of quality information on the extent, trends, and patterns of NPS use and chemsex practices among GBMSM subgroups. This is due to the high degree of stigmatisation that prevents open discussion of such topics, as well as limited access to state data sources due to legal and political restrictions.
2. **Qualitative Research:** an important aspect of filling research gaps is to conduct qualitative research that can help identify the deep motivations, circumstances, and contexts of NPS use and chemsex practices among the GBMSM community. A qualitative approach allows us to understand the sociocultural factors that shape these practices and identify needs for support and prevention interventions.
3. **Social Determinants of Health:** one key aspect that requires further research is to examine the impact of social and economic factors on the use of NPS and chemsex among GBMSM subgroups. This includes analysis of discrimination, stigmatisation, inequalities in access to healthcare, and social support and affiliation factors.
4. **Medical and Psychosocial Consequences:** it is important to investigate the long-term medical and psychosocial consequences of NPS use and chemsex practices among the GBMSM community. This will be helpful in assessing the scope of the problem, identifying the most vulnerable groups, and developing targeted support and treatment programmes.
5. **Effectiveness of Interventions:** the lack of evidence on the effectiveness of various harm reduction and health support programmes and interventions for GBMSM subgroups is another challenge. Systematic evaluation of programme effectiveness will help identify best practices and methods of work, as well as identify needs for further research and programme development.

10. Conclusion

Research on the use of NPS and chemsex practices in the GBMSM community in Central Asia has revealed many significant aspects that require attention and action. A central problem is the high degree of stigmatisation and discrimination of GBMSM people, which hinders access to medical and social assistance. Despite some initiatives and projects aimed at sup-

porting GBMSM communities, significant gaps in data and research efforts remain.

Key findings indicate that GBMSM people in Central Asia often face social and legal pressures that increase their vulnerability to NPS use and chemsex practices. Limited research makes it difficult to understand the true extent of the problem and to develop effective interventions. NPS use and chemsex significantly increase physical and mental health risks for GBMSM people, including the risk of transmission of HIV and other sexually transmitted infections, as well as the development of addiction and mental health disorders. Effective prevention and support programmes should include educational initiatives and medical and psychological care, as well as harm reduction measures and legal protection.

Effective management of the problem of NPS and chemsex use in the GBMSM community in Central Asia requires the coordination of the efforts of various stakeholders, including government agencies, NGOs, international organisations, and representatives of GBMSM communities themselves. It is important to increase the quantity and quality of research to obtain accurate data on the prevalence and consequences of NPS and chemsex use, and to conduct both quantitative and qualitative research. It is necessary to develop and implement educational programmes aimed at raising awareness about the potential risks of NPS use and safe practices, including them in educational institutions and community organisations. It is also important to establish and support harm reduction programmes, organise syringe exchange points, provide access to antiretroviral therapy, and provide condoms and sterile instruments to reduce the risks of transmission of infections and other medical complications.

Ensuring access to psychological and social support through counselling services, support groups, and rehabilitation programmes for GBMSM people is a key step. It is necessary to strengthen legal protection for GBMSM people and to combat discrimination and stigmatisation at all levels of society. International cooperation, including collaboration with international organisations to share experiences and obtain resources, is also important for the implementation of support and prevention programmes. Implementing these steps will require coordinated efforts and sustainable funding but can significantly improve the health and well-being of GBMSM people in Central Asia. It is necessary to continue discussing this issue at all levels and actively involve all stakeholders in the development and implementation of effective strategies and programmes.

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10. New Psychoactive Drugs in European Prisons

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Introduction

Drugs play a major role in prisons. It has been shown that illicit substance use, especially the use of new psychoactive substances (NPS), is more prevalent among people entering prisons and other closed settings than in the general population; and poor substance use-related health outcomes after release from prison are common. How do prisons and other detention centres deal with the prevalence of people who use drugs and people who use NPS?

NPS are defined by the United Nation Office on Drugs and Crime (UNODC) as “substances of abuse, either in a pure form or a preparation, that are not controlled by the 1961 Single Convention on Narcotic Drugs or the 1971 Convention on Psychotropic Substances, but which may pose a public health threat” (UNODC, 2020).

According to the respondents of the EU-funded project ‘NPS use in European prisons – Assessing prevalence and providing a comprehensive strategy for effective prevention and intervention’ (Auwärter et al., 2022), all substances are almost always available in prison settings. The substances mentioned in the study are NPS, cannabis, cocaine, heroin, ecstasy, amphetamine, alcohol, heroin and methamphetamine. Furthermore, drugs such as Subutex, Lyrica, Tilidin and Ritalin are also traded for non-medical use. The most common form of NPS use in prison is inhalation (smoking). However, there are also cases where NPS is prepared as tea or used nasally. Due to their nature, NPS can be used anywhere, i.e. in the cell, at work, as well as during sports or group activities (Auwärter et al., 2022).

The use of NPS in European prisons has become a serious health and social problem with numerous life-threatening poisonings and other health-related hazards in the last years.

Since approximately 2004, NPS has become widely available across the globe, distributed via the Internet, head shops and even at gas stations. They have been marketed as bathing mixtures, air freshener, fertiliser pills or herbal incense – and function as a substitute for cannabis and other

common drugs (Dresen et al., 2010). Known under the names “Spice”, “K2”, “Moon Rocks”, “Ninja”, “Mr. Nice Guy”, “Outer Space” or “Smoking Santa”, just to name a few (for more see Kemp et al., 2016, p. 242), these drugs are often declared as *not for human consumption* to disguise their actual purpose. Elementary components of NPS, however, are highly potent chemic compounds that originate from pharmaceutical research. This has given them their name “Research chemicals”.

Especially in closed environments like penitentiaries, NPS pose a serious threat to staff and people living in prison (PLIP) due to the risk of causing violent behaviour (acute violence under the influence of drugs and structural violence in the context of supply chains and by PLIP forced by other PLIP to ‘try’ new substances) (HM Inspectorate of Prisons for England and Wales, 2015a). Altogether, NPS use in prisons leads to increasing health costs and a higher number of drug-related deaths. Across European countries, the number of NPS-induced deaths is difficult to quantify and likely underreported (EMCDDA, 2018). Between June 2013 and September 2016, in England and Wales, NPS use was linked to 79 prison deaths, 56 of which were self-inflicted (Prison and Probation Ombudsman, 2017). This suggests that NPS can play a significant role in intensifying pre-existing mental health problems or fostering negative mental conditions that increase the risk of self-harm (EMCDDA, 2018). From a European perspective, tools for the assessment of the severity of the problem and ‘best practice’ measures to reduce NPS use in prisons are therefore needed.

All substances are more difficult and expensive to access in prison than in the community. Most of them are detectable in drug testing, which is a control measure often implemented in prison. The initial undetectability of NPS in routine urine testing is thought to be one of the main reasons for the use of NPS inside prison, in addition to their higher availability and easier way to conceal into prison (EMCDDA, 2018).

The use of NPS has emerged as a significant concern in prisons across several European countries during the 2014-2015 period. However, the use of synthetic cannabinoids was initially identified in England and Wales during the 2010-2011 period (User Voice, 2016). An exploratory study conducted in European countries in 2017 found signs of NPS use in prison in 24 countries (see figure 1; EMCDDA, 2018). Among NPS, synthetic cannabinoids were most often reported. Other NPS commonly used in prison were synthetic cathinones, synthetic opioids and new benzodiazepines (EMCDDA, 2018). Anecdotal information was reported on the use of

nitazene, a highly potent group of synthetic opioids in prison, likely associated with overdoses (EMCDDA, 2024).

Epidemiology of NPS use in European prisons

The primary substances of abuse utilised by PLIP are cannabinoids and synthetic cathinones. Recent use of NPS among PLIP before imprisonment ranges from 21% in Finland to 0.1% in Spain (both synthetic cathinone use). Countries reporting prevalence of recent use of NPS was 6.4% in Luxembourg, 5.6% in Lithuania, 2.5% in Spain (synthetic cannabinoids) and 1.5% in Belgium. Czechia reported data on current use of synthetic cannabinoids and cathinones: 1.1% and 2.0% respectively (Montanari et al., 2024).

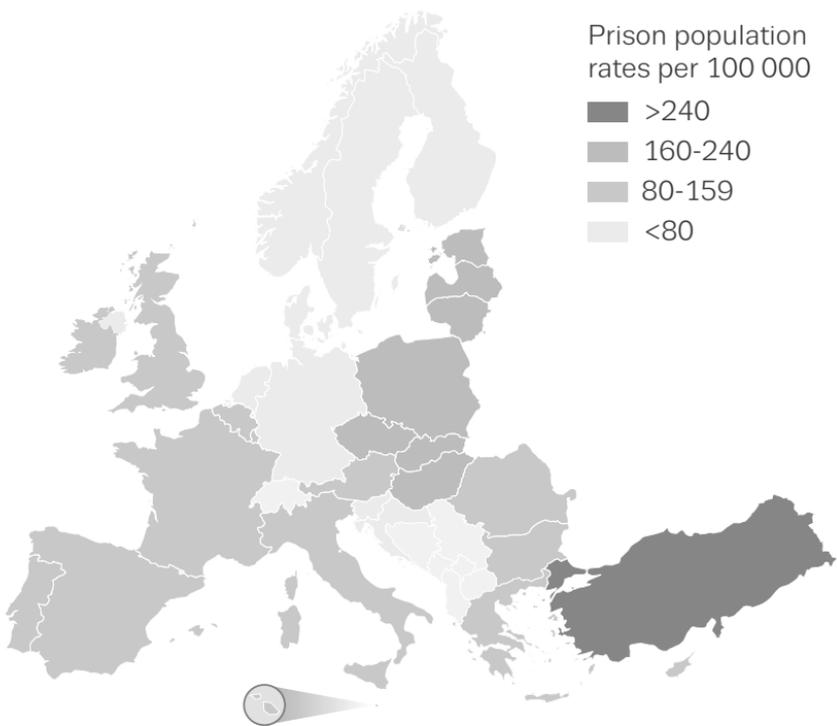


Figure 1: Reported use of new psychoactive substances (NPS) in prison, 2018 (EMCDDA, 2018).

Drugs and drug use in prison

The following data have been generated within the EU-funded project ‘NPS use in European prisons – Assessing prevalence and providing a comprehensive strategy for effective prevention and intervention’ (Auwärter et al., 2022). This project applied an interdisciplinary approach using comprehensive urine analyses and qualitative social research. On the basis of the type of drugs detected and the results of qualitative structured interviews conducted with employees in the penal system and focus group interviews with PLIP, a strategy including modular trainings for penal system professionals as well as PLIP was developed to reduce NPS use and related harms. To assess the actual subjective significance and spread of NPS use in prisons from different countries and regions, professionals from these institutions have been interviewed. Additionally, researchers have been talking to PLIP via focus group interviews in order to receive first-hand information on the significance, using patterns and prevalence of NPS in the respective prisons. Some of the results are presented here. The main reason given by PLIP for using NPS is the escape from the everyday prison life described as boring and routine (EMCDDA, 2018). As can be seen from the following quote, drug use serves above all to establish normality and pleasure:

“And when you consume that, I can at least say that for myself, so when I consumed that, you actually feel normal again, ne? So you feel... Yeah, I don’t know. It’s like, ne, when you’ve consumed then, you’ve laugh again, you’ve look forward to something again.” (Auwärter et al., 2022, JVA-Y focus group, para. 18).

However, drugs are not only used to escape everyday prison life, but also to cope with circulating thoughts or personal problems. Furthermore, the respondents stated that they use drugs because of their drug use history or in rare cases out of curiosity. The reasons for the use of NPS are on the one hand the availability and the lower costs of the substances, since these can be procured more easily and by their high potency small dosages are sufficient. On the other hand, the use of NPS often remains undetected by prison authorities. This is due to the fact that NPS are usually odourless and can only be detected with great effort. This means that, for example, people on day release and people with treatment conditions according to § 35 BtMG (the German Narcotics Act) are more likely to use NPS. As a rule, NPS are used for the first time in prison. Outside the prison, ,clas-

sic' drugs are preferred. Many of the interviewees had negative experiences with overdoses either personally or witnessed by fellow PLIP, friends and acquaintances. These experiences range from physical and psychological effects such as circulatory problems, loss of speech, perceptual disturbances or/and temporary memory loss to unconsciousness. One PLIP reports on an emergency he witnessed:

“A very blatant impression was [...] when we went to eat out and the door opened and one of us was totally trembling. He was totally cramping and everything was lying on the floor, the food. So we wanted to collect, collect the cruets. And it had all tipped over on the floor and he was totally beside himself, shaking. And then, of course, they took him directly and took him away. That was one thing. Several times, for example, I saw people lying on the floor, completely motionless. I experienced that several times. Those are such lasting impressions.” (Auwärter et al., 2022, JVA-Y focus group, para. 113).

From the perspective of a PLIP who used NPS himself and has experience with overdoses, the high potential for addiction becomes clear:

“And yes, it was a deterrent too, but I'll be honest, the first thing I thought about [...] was, ‘How am I going to get into my cell? I have to consume.’ And that's bad, right? Now that I think about it and talk about it, it's totally extreme. Hard to explain this to someone from the outside.” (Auwärter et al., 2022, JVA-Y focus group, para. 119).

However, the risks associated with NPS extend beyond their high dependence potential. The high potency of these substances, coupled with the risk of an overdose, and the relatively short duration of their effects (15 to 20 minutes) also contribute to the overall risk profile. Additionally, the strong craving and rapid tolerance formation that often accompany NPS use further complicate the situation. Furthermore, people who use NPS describe severe withdrawal symptoms that are worse than heroin withdrawal. In addition, many people who use NPS have little knowledge about the substances and in some cases do not know exactly what they are actually using. This is also shown by the fact that most of the interviewees talk about “Spice”, no matter which NPS they mean. Nonetheless, the intoxicating that is perceived as unpleasant (“cracking up”) leads to a greater awareness of the dangers of NPS and even to the decision not to use them (anymore). In addition to the health risks, other motives against the use of NPS, as well as drugs in general, have been identified. These include the fear of losing

certain privileges, such as the ability to leave the premises, the ability to watch television, and participation in leisure activities. Furthermore, there is a concern about losing employment or access to self-help groups, as well as becoming isolated and excluded from social activities and having one's access to personal funds restricted. Other sanctions include letter spears/copies and if drugs are found, criminal charges are filed. In general, the greater the number of prison conditions that PLIP has alleviated, the greater the fear of losing these conditions due to drug use.

The subsequent treatment of PLIP is subject to criticism: instead of help, they are subject to pressure and punishment, as the following interview sequence illustrates:

“The only thing I actually felt was the pressure from the staff, who were telling me, or also from prisoners who came to the window: “Listen, you’ve messed everything up for us.” Sure, lots of them came to me and said, “How can I help?” There were some, but basically, I just felt pressure. I couldn’t really get out of it, right? You have the TV and other things that would have helped, like actually talking to the staff or anyone else. I’m not blaming anyone, but it was just punishment.” (Auwärter et al., 2022, JVA-Y focus group).

The sanctions imposed, such as a TV ban or isolation, as well as the staff’s treatment of people who use NPS or among the PLIP themselves, considerably worsen the situation. It is evident that the primary need of people who use NPS is for assistance and guidance. This may be provided in various forms, including verbal communication, encouragement, and engaging activities that are perceived as meaningful. However, this contradicts the conditions in prison, which increases the pressure to use again. This is also intensified when prison staff subsequently treat the person who use NPS with low esteem and contempt.

The impact of NPS is described as follows:

“I can tell you this much, all these NPS, these legal highs have really changed our lives in custody drastically in a negative way. They pose a huge danger.” (Auwärter et al., 2022, JVA-Y focus group, para. 19ff.).

Whereas NPS played a very big role, especially in 2017/18, and had a significant impact on life in correctional facilities. In 2017/18, some correctional facilities experienced multiple emergencies with emergency room visits during the day due to NPS use. Since approximately 2019, the number of emergency room visits has decreased significantly. This can be explained

partly by the fact that NPS use has decreased overall and partly because NPS are less potent. In addition, PLIP have either learned a safer way of dealing with the substances or have stopped using them and are more likely to resort to 'classic' drugs as a result of their experience of use.

Evaluation of the (social work) services

The services mentioned by PLIP in connection with drug use include drug counselling, various leisure activities such as sports, especially soccer, music and newspapers, social skills training, substitution therapy, self-help groups, therapy preparation courses and information events.

Overall, the services available in correctional facilities are rated as helpful. PLIP positively emphasize services where they can discuss their own problems and issues, as well as services that offer them the opportunity to reflect on their own actions, behaviour and thinking: for example, social competence training, although not directly related to drug use, is used to reflect on one's own addictive behaviour. The personality of the social workers is a significant factor in relation to the services they provide. They should be as open, relaxed and not too serious/conservative as possible, because *"there should also be a bit of fun, otherwise you lose interest in the whole thing"* (Auwärter et al., 2022, JVA-Z focus group, para. 28). In addition, it is essential to consider the diversity of the offered activities in order to provide a balance to the otherwise routine and monotonous prison environment. Even though recreational activities are predominantly evaluated positively, one focus group made the following statement: *"A lot of people do it, but I don't think most of them are that keen on participating in recreational activities"* (Auwärter et al., 2022, JVA-X focus group, para. 253f.). However, a more detailed explanation is not given at this point. The possibility of substitution in prison is rated positively, although the conditions attached to it, such as regular urine checks and doctor's visits, are criticized for taking place during working hours and thus complicating and hindering everyday (work) life.

Another topic is therapy for the treatment of dependency disorders. This option is of interest to PLIP, among other things, because according to § 35 of the German Narcotics Act (BtMG), execution of the sentence can be postponed if therapy takes place instead. Therapy while living in prison is only feasible within a correctional centre; however, this is not a common practice. There are therapy preparation courses/groups for this purpose.

On the one hand, these prepare the PLIP for therapy, and on the other hand, they serve to test motivation and make it clear whether PLIP is genuinely interested in therapeutic treatment or is merely using it to get out of prison earlier. This is measured, among other things, by compliance with the prison rules. The social workers have to give an opinion on this. The criticism here is the large amount of bureaucracy involved.

In general, the resources allocated to therapy, including personnel, time and space, are perceived as insufficient. One interviewee even described the socio-educational services as a waste of time, serving only to present the prison in a positive light. However, this is an isolated opinion and contrasts sharply with all the other interviews, which clearly show how great the need is for supportive discussions and that the inadequate services are accompanied by a feeling of powerlessness or inability to act on the part of the PLIP. Often, personal problems cannot be solved independently and lead to a heavy burden, which is often met with drug use. In this context, social workers are seen as the only help with whom one “*can also talk openly about everything.*” (Auwärter et al., 2022, JVA-Y focus group, para. 187). In this context, it should be noted that drug use tends to be kept secret, as this makes it more difficult for PLIP to be released and to leave prison (see chapter 4.1.1). It was also mentioned that open discussion of personal problems in self-help groups is only possible to a limited extent, for fear of negative consequences from fellow PLIP. Interest in existing services is so high that they often involve long waiting times, which runs counter to PLIP desire for immediate help. Some of the prisons distribute information flyers on the subject of NPS during the admission interview. However, these are misused by the PLIP to make cigarette filters. At this point, it becomes clear that the flyers do not fulfil their purpose of education and prevention, as they are not appealing to the PLIP (see Auwärter et al., 2022, JVA-Y focus group, para. 177ff.).

On the basis of the criticism of the prison services given here, it is not surprising that PLIP would like to have more opportunities to talk with others:

“For us addicts, it is often much more effective and much more helpful to simply have someone or especially also like-minded people who have, however, managed to jump ship, sitting in front of us, and to simply be able to talk to them.” (Auwärter et al., 2022, JVA-Y focus group).

From this quotation, it is evident that the PLIP necessity for communication is significant. The most beneficial contributions are from individuals

who have previously used NPS, as they are best positioned to comprehend the PLIP situation. In general, it is said that regularity, uniform administrative procedures and easy access to the offers are necessary to create trust and openness among each other and to work out and pursue individual goals. Furthermore, there would be a need for more education and prevention as well as substitution services. Drug trafficking in prison should be further curbed. Addiction should not be in opposition to the granting of privileges, but should ideally be alleviated by them. One way of providing relief could also be to adjust the prices for consumer goods and telephone calls, as these are very high. On the one hand, this would give people the opportunity to use telephone help services or to call friends in order to be better able to deal with personal problems. On the other hand, the acquisition of a game console, for example, could counteract boredom. It could also help if people who use drugs were decriminalized, and drugs even legalized. Finally, two fundamental wishes for change are expressed: addiction should be recognized as a disease and thus have less of a punitive effect.

Distribution of NPS in prison

As mentioned earlier, basically all substances are available in prison. The difference in the distribution of NPS and ‘classic’ drugs lies in the substances themselves. Due to their high solubility, potency, and lack of odor, NPS are relatively inconspicuous when brought into a prison setting.

“Really, so when you’re researching causes of how this gets in, ne, it goes to the easiest ways. So they always come up with the easiest things and the easiest way that this gets in here.” (Auwärter et al., 2022, JVA-Y focus group, para. 80).

The most common way described is through the mail: “[NPS] you can clearly even say percentage wise already, 99 percent it goes through the mail channels.” (Auwärter et al., 2022, JVA-Y focus group, para. 85). NPS can be applied in dissolved form to paper, which is later rolled into a cigarette. A health risk associated with NPS in this form is the possibility of ‘hot-spots’ – areas on the paper with a higher concentration of the active compound, which may be linked to a greater risk of overdose (EMCDDA, 2018). A recent study by Akca et al. (2024) analysed non-judicial paper samples from 12 English prisons between 2018 and 2020. The results showed that

SCRA (synthetic cannabinoids receptor agonist) was the most common drug group found in drug-impregnated papers.

In some correctional facilities, for example, oranges filled with NPS, carcasses of birds, as a package with fishhooks attached, or the like are thrown over the wall (EMCDDA, 2018). These are collected by PLIP and further distributed either during the next yard run or by PLIP working outside. In recent years, there has been a rise in reports of ‘drone’ deliveries of NPS-packages to prisons in Germany, Poland, and the United Kingdom. Furthermore, prison canteens have been mentioned as a common source of supply. Pre-packaged items like coffee, instant noodles, and crackers were often used to conceal NPS (EMCDDA, 2018). Another form of distribution are groups of people, mentioned here are prison employees (judicial officers, administrative staff, operational staff, etc.), lawyers, self-employed PLIP, loosened PLIP (exits) and visitors. The handover during visits takes the following form:

“There is one method in any case, if I am now sitting at the visit and someone pulls there, for example, has a gummy bear or something. And then he fetches it, opens it, takes one out himself and puts something in it at that moment, and then the person also fetches a jelly baby, takes it with him and then leaves it in his mouth, because they’re usually not allowed to check in the mouth, a doctor has to be there. So things halt. Already disgusting variants so. That one drinks a sip of coffee then, that plops in there from his mouth and the other drinks that then and so.” (Auwärter et al., 2022, JVA-Z focus group, para. 15ff.).

In order to facilitate NPS into prison, PLIP who are permitted a certain degree of autonomy and those who have been granted some degree of liberty engage in the practice of body packing. There are two additional methods of body packing: firstly, small packets are sewn into the clothing, and secondly, important documents are soaked in NPS.

Weaker PLIP are exploited for distribution, especially of NPS: NPS-soaked letters are addressed to them, then they are coerced to distribute them. As illustrated in the following quote, the main players stay in the background:

“The people who really hold it in their hands, all this spreading of the crap, yeah, they don’t even need to put themselves in the middle, they can, act in the background through all this shit.” (Auwärter et al., 2022, JVA-Y focus group, para. 222f.).

Profit is a key factor driving NPS into prisons. The higher prices compared to outside environments attract organized crime groups seeking to profit from this illicit market (EMCDDA, 2018). In general, the circle of active dealers is very small and based primarily on mutual trust. In most cases, there is a primary operator who has an external contact. This individual's primary concern is the availability of the substances. Then there are two to three PLIP who distribute the drugs in the prison. The circle is kept small so that the risk of exposure is low and if one is caught, only he can be prosecuted. All those involved have a benefit that goes beyond the monetary. It is often the case that communal areas (e.g. workrooms, kitchen, sanitary facilities) are used as hiding places for drugs, which makes it difficult to assign personnel to locate them. The handover takes place in places without cameras, such as in the hallways, while walking around the yard, or in the closet. Another method is to pass parcels from window to window with the help of a pendulum.

Interventions targeting the use of NPS in prison

The rapid emergence of novel products means that developing supportive health intervention responses is challenging, in particular for the prison context (Pirone, 2017). Only anecdotal reports on the responses to NPS in European prisons are currently available, and many countries report a lack of appropriate responses.

Some countries report that existing approaches in reducing drug use and associated harm among PLIP have been adapted to incorporate NPS. Other countries have started to develop specific interventions to respond to NPS problems in the prison setting, mainly focusing on synthetic cannabinoids.

Information initiatives and booklets, workshops or training modules focusing on NPS use in prisons have been provided or are currently under development for prison staff in Germany, France, Hungary, Ireland, Poland, Slovenia and the United Kingdom (EMCDDA, 2022). Interventions providing information on drug prevention and risks are usually delivered in group settings. Most European countries have education and training activities for PLIP and prison staff. Training activities focus on two main areas: drug use and associated risks, and psychological and social development. Key objectives include raising awareness of drug use and related risks, learning how to deal with emergency situations (e.g. overdoses, effects of

NPS use) and reducing harm (e.g. multiperson use of injecting equipment) (EMCDDA, 2022).

In the United Kingdom, a wide-ranging programme has been undertaken to counteract NPS use in prison. Among the measures implemented are legislative changes; a smoking ban; the development of new drug tests; information campaigns for PLIP; a national strategy and action plan to respond to PLIP under the influence of NPS; and a new toolkit to support prison healthcare and custody staff to address NPS in prison (Public Health England [PHE], 2015). The toolkit is an adaptation of an existing toolkit on responses to NPS in the community (Abdulrahim & Bowden-Jones, 2015) and aims at providing guidance for the interventions targeting NPS use and related problems in prison. One of the key principles of the toolkit is the delivery of support based on observed symptoms ('treat what you see').

As with responding to drug problems in general, partnerships between prison health services and providers in the community may prove particularly important in supporting the delivery of health education and treatment interventions for NPS use and related harms in prisons and in ensuring continuity of care upon prison entry and release (EMCDDA, 2022).

The majority of countries have not yet implemented any specific strategies to reduce NPS supply in prisons. Most countries employ standard drug control measures, such as cell searches and visitor checks, the use of sniffer dogs and infrastructural changes. Several countries have implemented stricter regulations to combat NPS supply in prisons, e.g. Poland, where PLIP are no longer permitted to receive food packages sent by third parties and are only allowed to purchase food through the prison canteen service. Hungary is considering a similar measure, along with restrictions on tobacco and toiletries. The Serious Crime Act of 2015 criminalized throwing objects over prison walls in the UK. To minimize the risk of PLIP receiving letters containing NPS, some German prisons restrict them to receiving photocopies only (EMCDDA, 2018).

The EU drugs strategy 2021-2025 includes prison as a strategic priority, with the objective of addressing the health and social needs of people who use drugs in prison settings and after release. A multi-faceted strategy involving stronger cooperation with law enforcement agencies, sharing and processing information, tackling corruption, using intelligence and drug testing can significantly reduce the availability of illicit substances in prisons (Council of the European Union, 2020).

Effective Management of NPS in Prisons

The effective management of NPS in prisons is based on the recommendations outlined in the Public Health England (PHE, 2017) toolkit. The toolkit emphasises the importance of accurately determining the prevalence, patterns of use and effects of NPS in order to develop effective strategies for addressing the issues associated with these drugs. Focus groups might be helpful to shed light on the concrete motives and patterns of use in conjunction with external organisations (NGOs).

It is essential that every penitentiary institution has an integrated response, with custodial, health and psychosocial staff taking a joint approach to managing all aspects of the problems associated with the use of NPS and other substances in prisons.

This can be supported by multi-lingual, multimedia campaigns directed at PLIP and visitors, describing the health and social consequences and the sanctions for possessing and using NPS.

The overriding principle is that penal staff should respond in a proportionate and relevant way to behaviour or symptoms, irrespective of whether a person is suspected to be under the influence of NPS.

Prison healthcare providers should follow existing guidance that the appropriate response is to address the presenting symptoms rather than the specific drug suspected to have been used i.e. „treat what you see“.

Where there are questions about PLIP mental capacity when under the influence of NPS, staff should apply the principles set out in the National Health Service (NHS, 2022) choices consent to treatment guidance.

In general, no specific pharmacological treatments exist for the adverse effects of NPS, so symptom-directed supportive care will inform a safe and effective management of acute cases, underpinned by advice from the National Poisons Information Services were existing and accessible.

The decision on sending for an ambulance will depend on a number of factors including the prison location, healthcare staffing and resources and the use of locally agreed protocols.

The German prison of Wittlich in the state of Rhineland-Palatinate is trying to combine repression and counselling/supporting services. On the one hand, the prison is equipped with a drug detection device – a portable explosives and narcotics trace detector (IONSCAN 600) to detect NPS, and on the other hand, the institution is educating staff to support people using NPS.

Conclusions

The prevalence of NPS within prison settings represents a significant challenge. Despite efforts to curb substance abuse, the unique characteristics of NPS pose a considerable obstacle. These include their discreet use and the initial ability to evade detection through routine testing, which contribute to their widespread use.

So, how do prisons deal with the prevalence of drug use and use of NPS? Prisons have encountered difficulties in effectively addressing the issue of NPS use. Traditional drug prevention and intervention strategies may not be sufficient to combat the rapid evolution of NPS. There is a need for more comprehensive and innovative approaches that address the underlying factors contributing to NPS use, such as boredom, stress, and lack of opportunities for rehabilitation.

Many countries have yet to implement targeted strategies to reduce the supply and use of NPS within prison environments. Despite the valuable contributions of social workers and other prison staff, including drug counselling and education, the perceived insufficiency of resources often hinders the effectiveness of these interventions. Information initiatives and workshops have been implemented, with interventions typically provided in group settings.

Partnerships between prison health services and community-based providers may prove particularly valuable in supporting the delivery of health education and treatment interventions for NPS use and related harms in prisons, as well as ensuring continuity of care upon prison entry and release. The UK's comprehensive approach, including legislative changes, smoking bans, and new drug testing, provides a model for other countries to consider. The PHE (2017) toolkit offers practical recommendations for the management of NPS in prisons. It is imperative that prisons adopt a novel approach, shifting away from a dependence on punitive measures and towards a prioritisation of comprehensive support and treatment for individuals encountering addiction. This will necessitate the implementation of evidence-based addiction treatment programmes, harm reduction strategies and supportive services that address the underlying causes of drug use, as well as verbal communication, encouragement and meaningful engaging activities. The involvement of peer support programmes involving former people who use NPS will also be of significant benefit, as they are best equipped to empathise and offer effective guidance.

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III. Demand Reduction

11. New Psychoactive Substances: Understanding the Health Risks and Clinical Impacts

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Introduction

Despite global efforts to combat drug abuse, the number of people suffering from addictions continues to rise. In 2021, over 296 million people worldwide consumed drugs, marking a 23% increase over the past decade. Concurrently, the number of individuals suffering from drug use disorders surged to 39.5 million, reflecting a 45% increase over the same period (UNODC 2023). These statistics highlight the persistent and growing challenge of drug abuse, necessitating ongoing and enhanced global intervention strategies.

A growing concern is the increasing number of individuals experiencing adverse effects from the risky use of psychoactive substances without developing physical dependence. This issue extends beyond addiction, as more people are facing significant health burdens related to drug use. For example, there has been a steady rise in the number of people infected with HIV, hepatitis C, and sexually transmitted infections due to drug use. These infections not only impact the health of individuals but also strain public health systems and resources.

In parallel, the modern world has witnessed a dramatic shift in the types of psychoactive substances available on illegal markets. New psychoactive substances (NPS) have emerged, posing significant challenges to public health and safety. These substances are often designed to mimic the effects of traditional drugs but can be more potent and unpredictable. The rapid introduction of new NPS variants complicates the ability of health professionals and law enforcement to manage and mitigate their impact effectively.

Research and systematic reviews indicate that the health risks posed by new psychoactive substances are comparable to, and sometimes exceed, those associated with traditional substances such as heroin, opium, cocaine, amphetamines, and cannabis (Chiappini et al. 2021; Rinaldi et al. 2020). NPS can lead to severe health issues, including acute toxicity, mental health

disorders, and long-term physiological damage. The constant variability of new formulas and their unpredictable combinations in illegal markets exacerbate these risks, leading to a persistent lack of the knowledge necessary for developing balanced harm reduction measures.

The challenges of NPS are multifaceted. First, their chemical compositions are continually changing to evade legal restrictions, making it difficult to monitor and regulate their use. Second, the lack of comprehensive data on their long-term effects complicates the creation of effective treatment and prevention strategies. Third, the accessibility and appeal of NPS, especially among young people and vulnerable populations, contribute to their widespread use and the associated health risks.

The purpose of this chapter is to review the symptoms associated with the use of new psychoactive substances. This information is crucial not only for medical professionals but also for addiction counsellors, social workers, and harm reduction specialists who work directly with individuals affected by NPS use. Understanding these symptoms can enhance the ability of these professionals to provide appropriate care and support.

For clarity and ease of use, symptoms will be presented according to the organ systems most often targeted by the toxic effects of NPS. This systematic approach allows for a comprehensive understanding of the various health impacts of NPS and facilitates targeted interventions. By categorising the symptoms, we aim to provide a clear and accessible reference for identifying and managing the adverse effects of NPS use.

Overall, this chapter seeks to contribute to the body of knowledge on NPS and support efforts to mitigate their harmful effects. Through increased awareness and understanding, we can better address the challenges posed by these substances and improve outcomes for those affected by their use.

The Effect of the Synthetic Cannabinoids on the Respiratory System

Synthetic cannabinoids (SCBs) can depress the respiratory centre even in the absence of pre-existing respiratory conditions. In a study by Manini et al. (2022), 29 out of 83 patients had experienced an SCB overdose, with acute respiratory failure occurring in 25% of these cases, compared to just 4% among those overdosing on other narcotic substances. Berkowitz and colleagues (2015) reported four cases of pneumonia leading to respiratory failure in individuals using SCBs.

Orsini and colleagues (2015) documented a case involving a young man who developed acute respiratory failure after consuming SCBs, necessitating artificial lung ventilation in the intensive care unit. The authors attributed the respiratory failure to acute heart failure.

Respiratory failure can also result from pulmonary embolism. Yirgin et al. (2018) described a young patient who developed pulmonary embolism without any apparent cause other than a two-year history of SCB use, despite normal blood coagulation test results. Similarly, Raheemullah & Laurence (2016) reported a 32-year-old woman who visited the emergency room four times due to repeated episodes of embolism following SCB use. Notably, these episodes did not occur during periods of abstinence from SCBs.

The Neurological and Psychiatric Effects of SCBs

Long-term use of SCBs may be one of the causes of psychosis. In addition, the use of SCBs may be accompanied by mania with psychotic symptoms. Thus, Ustundag et al. (2015) described the case of a young man whose relatives noticed behavioural abnormalities. He talked to himself, could look at one point for a long time, spent a lot of money, suddenly became interested in religion, and barely slept. In addition, he called himself an angel, a demon, and a prophet. According to relatives, he had had no mental abnormalities before he began using illegal drugs, something he had been doing for three to four years. The appearance of behavioural abnormalities had started to be noticed in the last six months, when the young man had begun to use SCBs.

The use of SCBs can be accompanied by suicidal thoughts, as in the description of the case of a young man who was admitted to the emergency department with acute arousal, confusion, suicidal thoughts, and self-inflicted trauma due to using SCBs. The following day, all symptoms disappeared after receiving care (Thomas 2012).

SCBs affect speech and movement coordination. For example, the research of Yeakel & Logan (2013) discussed twelve cases of motor vehicle drivers who tested positive for SCBs. The authors described that the drivers' speech was slow and slurred, and their coordination was reduced. Musshoff et al. (2014) studied some cases of detention of drivers who used SCBs and noted an extremely high level of danger on the road because of

the drivers' impaired fine motor skills and inability to hold the steering wheel.

The main symptoms of using SCBs are changes in mood and behaviour. These include anxiety, hallucinations, arousal, and euphoria. Other symptoms include various types of cognitive impairment, such as decreased memory, concentration, and attention. Besli et al. (2015) noted in their study a decrease in academic performance and school attendance among adolescents admitted to the emergency department with acute intoxication due to SCB use.

The Effect of SCBs on the Digestive System

Cannabis has an antiemetic property. However, in 2004, the syndrome of 'cannabinoid hyperemesis' was described in scientific literature, which is characterised by abdominal pain, nausea, and vomiting against the background of chronic use of cannabinoids. Patients suffering from this syndrome may need to take a hot bath or shower. Patterson et al. (2010) described four cases of cannabinoid hyperemesis syndrome, indicating that the symptoms of damage to the digestive organs disappeared after stopping cannabis use.

Ukaiqwe et al. (2014) described the case of a 38-year-old man who was admitted to the emergency department complaining of nausea and vomiting that had lasted for two weeks. It turned out that the patient had used cannabinoids and smoked SCBs the day before hospitalisation. In the past, the patient had noted similar symptoms that could last for two or three days but disappeared on their own without medical intervention. During the examination of this patient, there was soreness in the epigastric and umbilical regions. Interestingly, the pain stopped after taking a shower. The patient was diagnosed with cannabinoid hyperemesis syndrome. During hospitalisation, the patient did not use SCBs and did not complain about their digestive system.

The Effect of SCBs on the Circulatory System

Diseases of the circulatory system, especially among middle-aged people, are of concern to the medical community. When coronary heart disease is diagnosed among young people, anxiety also increases significantly. Ac-

According to the medical literature data, cases or series of cases of circulatory system diseases at a young age after using the SCB K2 are described. Khan et al. (2018) presented a case of ischemic cardiomyopathy and ischemic stroke in a 25-year-old man after he had used the SCB K2. The patient had no obvious traditional risk factors for coronary heart disease. According to blood tests, there were no signs of dyslipidemia. An ischemic infarction of the left middle cerebral artery was diagnosed on a CT scan of the head. On echocardiography (ECHO CG), the contractile function of the heart is significantly reduced. Moreover, acute deep vein thrombosis in the left leg was diagnosed. McKeever et al. (2015) described the case of a 16-year-old man with a prolonged angina attack in the two hours after taking K2. There was a bronchial asthma and attention deficit disorder with hyperactivity in the anamnesis. Ibrahim et al. (2014) delineated the case of a 56-year-old man who lost consciousness after consuming the SCB K2. The anamnesis included coronary heart disease, post infarction atherosclerosis, coronary artery bypass grafting, hypertension, and dyslipidemia. The patient underwent cardiopulmonary resuscitation. During diagnostic cardiac catheterisation, no acute vessel blockage was detected, and a defibrillator was implanted in the patient. Kourouni et al. (2020) studied 42 medical records of patients in the emergency department who misused SCBs (mostly K2). In terms of issues relating to the circulatory system, two patients (6%) underwent cardiac catheterisation due to an anginal attack. Two cases (6%) of acute coronary syndrome were diagnosed. One patient (3%) had a cardiac arrest. Bradycardia was observed in 16% of cases, while hypertensive crisis was seen in 6% of cases.

While taking SCBs, one of the most common clinical symptoms is high blood pressure and palpitations. Heath et al. (2012) described two cases of pronounced tachycardia among two people aged 15 and 17 after using K2. In one case, tachycardia was accompanied by hypertension. Abouchdid et al. (2016) described a clinical case of a young 19-year-old woman whose symptoms after using psychoactive substances, including SCBs, included visual hallucinations, seizures, tachycardia, and minor hypertension. Symptoms were relieved 13 hours after consumption. Lam et al. (2017) demonstrated a clinical case of a 24-year-old man who was taken to the emergency department with a short-term episode of tachycardia after using SCBs. In their work, Martínez et al. (2021) compared the dynamic of acute manifestations when consuming the SCBs JWH-122 and JWH-210 for four hours. The number of heartbeats and the level of systolic and diastolic blood pressure were calculated. When comparing the two substances, both systolic and

diastolic blood pressure and heart rate were significantly higher when taking JWH-122

Tait et al. (2016) studied approximately 4,000 clinical cases of adverse events involving SCBs, including 26 deaths. The main causes of death were also cardiovascular complications in the form of myocardial infarction, ischemic stroke, and embolism. The most frequent complaint in terms of the circulatory system was tachycardia. Kasper et al. (2019) described toxic complications in patients after using SCBs in 2015 in Mississippi with prevalent aggression, hypertension, and tachycardia. The average age was 31 years old, and 85% were male. As regards issues relating to the circulatory system, 42% had tachycardia and 30% had hypertension. Law et al. (2015) studied cases of referral at the US toxicology centres from January to May 2015. It was found that during this period, there were 3,572 patient referrals following SCB use, largely among men (80.7%). The average age was 26 years old. Tachycardia, as one of the main symptoms seen when treating patients, occurred in 1,035 cases (29%).

Monte et al. (2017) analysed a group of patients using SCBs who sought medical help for five years. After analysing the data, the researchers obtained the following results. Overall, 84% were men. The average age was 25. When it comes to the circulatory system, the main symptom in 12.5% of cases was tachycardia with a heart rate of more than 140 beats per minute, bradycardia with a heart rate of fewer than 50 beats per minute in 5.7%, and arterial hypotension in 4.2%. Cooper (2016) described the results obtained from patients who had been misusing SCBs for three and a half years in her research paper. In the work, the researchers drew attention to the frequency of use and the presence of side effects. The author concluded that even with a single use of SCBs, tachycardia was found in 6.5% of cases.

There are some works in the literature describing cases of the death of patients after SCB use. Shanks (2016) reported on the fatal outcome of a 41-year-old woman who used the SCB ADB-FUBINACA in his article. According to the autopsy results, the deceased had thrombosis of the left anterior descending coronary artery and pulmonary edema. McIlroy et al. (2016) wrote about a 39-year-old man with acute myocardial infarction, complicated by cardiac arrest after SCB use. Blood flow in the coronary artery was restored after stenting.

While conducting a literature search, we came across interesting cases of individuals suffering from non-ischemic cardiomyopathy who also had clinical symptoms of heart failure after SCB use. Mohammed (2019) described the case of a 15-year-old patient with a prolonged angina attack,

accompanied by an episode of loss of consciousness and various hallucinations. These complaints appeared after SCB intake. Takotsubo stress cardiomyopathy was diagnosed. Al Fawaz et al. (2019) described another case of heart failure. Following the use of the SCB UR-144, a 19-year-old woman was admitted to the emergency department with an epilepsy attack. After four days of hospitalisation, the phenomenon of heart failure with reduced myocardial contractility occurred.

The literature provides insights into the clinical manifestations of the circulatory system during periods of intoxication. However, the cardiac implications during the withdrawal phase remain underexplored. Nacca et al. (2013) documented two clinical cases of withdrawal syndrome following the prolonged use of SCBs, where anxiety and tachycardia emerged as the primary symptoms post-cessation. This highlights a significant gap in the current understanding of cardiovascular responses associated with SCB withdrawal, underscoring the need for further research in this area.

The Effect of Synthetic Cathinones on Kidney and Liver Function

Sutamteawagul et al. (2014) described a case of kidney damage after the consumption of synthetic cathinones (SCs). A 37-year-old man was admitted to the emergency centre with jerking movements throughout his body. Three days before his hospitalisation, he had used SCs. At the time of examination in the hospital, high blood pressure, rapid breathing, palpitations, and excessive sweating were diagnosed. Based on laboratory blood tests, renal insufficiency was also diagnosed. Acute renal failure is usually a complication of rhabdomyolysis in patients using SCs. Rhabdomyolysis is a syndrome characterised by the destruction of muscle tissue cells. Many authors describe rhabdomyolysis in cases of SC use. In the research by O'Connor et al. (2015), the 102 patients with sympathomimetic toxicity and detection of a stimulant agent in urine were aged 14 to 65, of which 74% were male. Rhabdomyolysis was diagnosed in 42% of cases. The authors concluded that SCs were associated with a high risk of rhabdomyolysis.

In addition to rhabdomyolysis with renal insufficiency, during the period of acute SC intoxication, patients may experience liver failure with elevated liver enzymes. Borek & Holstege (2012) described the case of a 25-year-old man who was admitted to hospital after SC use, with arousal and a body temperature increase. The patient had rhabdomyolysis with acute renal and hepatic insufficiency. The patient was in hospital for a long time and

was discharged after therapy with a significant improvement in his general condition.

The Effect of Synthetic Cathinones on the Circulatory System

In a literature review, it was identified that the primary cardiac manifestations during the acute phase of intoxication, associated with the use of SCs and SCBs, are tachycardia and arterial hypertension. Franzén et al. (2018) cited the results of the STRIDA project in their work. Over two years, information was collected on 43 patients who used alpha-Pyrrolidinobuthiophenone (α -PBP). Tachycardia, one of the primary clinical symptoms of acute intoxication, occurred in 54% of cases, while arterial hypertension was observed in 37% of cases. In the same STRIDA project, Beck et al. (2016) examined 42 patients with the drug α -pyrrolidinovalerophenone (α -PVP) confirmed in their blood during a four-year period. In 33% of cases, α -PVP was the only narcotic substance in the blood. Opioids, benzodiazepines, and ethanol were found in the blood in 67% of cases. Tachycardia (80%) and hypertension (33%) were also the main symptoms. Forrester (2012) described in his work the clinical symptoms of 362 patients who sought medical help because of SC use. Tachycardia was found in 45.9% of cases, hypertension in 21%.

Umehachi et al. (2016) studied eight cases of patients who went to the emergency department from March 2012 to November 2014. It was confirmed that all of them had the SC α -PVP in their blood. The time between use and admission to the emergency department averaged eight and a half hours, and the dosage ranged from 1.0 to 52.5 ng/ml. The main symptoms were fever (in three out of eight cases), tachycardia (in five out of eight cases), hypertension (in three out of eight cases), and impaired blood clotting (in four out of eight cases). There were no deaths. Also, Sivagnanam et al. (2013) described a clinical case of a 27-year-old man who was taken to the emergency department. The patient sought help after intravenous administration and inhalation of mephedrone. The patient had tachycardia and slight hypotension upon admission. Systolic blood pressure began to decrease to 60 mmHg two days after hospitalisation. There was no data for coronary artery disease during cardiac catheterisation. The patient's condition improved and he was discharged for outpatient treatment with a recommendation to stop using narcotic drugs.

Many sources are devoted to the presentation of deaths among SC consumers. Kesha et al. (2013) described a fatal incident that happened to a man who called an ambulance after drinking 'bath salts'. He developed a life-threatening rhythm disorder and hyperthermia, and then the patient sadly died. Methylenedioxypyrovalerone (MDPV) was detected in his blood at a concentration of 1.0 mg/l. Murray et al. (2012) described a fatal clinical case in a 40-year-old man who, after consuming MDPV 'bath salts', developed aggressive, inappropriate behaviour. During an objective examination at the prehospital stage, tachycardia and a slight shortness of breath were noted. In hospital, the patient developed bradycardia followed by cardiac arrest. Resuscitation measures were carried out and were successful after 30 minutes. Acute renal failure, rhabdomyolysis, and anaemia developed, and the patient fell into a coma. 42 hours after the treatment, clinical death was pronounced. Wyman et al. (2013) described the fatal case of a 39-year-old man who used MDPV. Death occurred because of toxic exposure to SCs, complicated by cardiac arrhythmia. Carbone et al. (2013) characterised a case of sudden cardiac death in a 19-year-old young man against the background of the use of the synthetic cathinone methylene (3,4-methylenedioxy-N-methylcathinone methylene). Loi et al. (2015) analysed 30 deaths among adolescents aged 16 to 24 after using mephedrone, which occurred in the UK from 2009 to 2013. 73% were male, and in 87% of cases, mephedrone was used in combination with other substances. The authors concluded that the use of mephedrone with other substances might have been the cause of these deaths.

In their work, Kudo et al. (2015) described a fatal case of a 30-year-old woman. The autopsy showed congestion and swelling in the lungs. Death occurred because of poisoning by three types of SC, diphenidine, benzothiazepines, and alcohol. Majchrzak et al. (2018) described the case of the death of a 29-year-old woman who suffered from alcoholism, who was repeatedly treated and whose suicide attempts had been previously noted. The woman came home intoxicated and consumed two teaspoons of powder of unknown origin. After a while, she fell unconscious. Resuscitation measures were not effective, and death occurred. The autopsy revealed swelling of the brain and lungs. The synthetic cathinone α -propylaminopentiophenone was found in the blood. Zaami et al. (2018) analysed 20 fatal SC-related cases. All cases were accompanied by hyperthermia, hypertension, and cardiac arrest. Thirakul et al. (2017) described a fatal case that happened to an absolutely healthy 29-year-old young man after consuming N-Ethylpentylone. Cardiac arrest was diagnosed, and cardiac

activity was restored after resuscitation. Tachycardia, shortness of breath, and hypotension were observed in the emergency department. As a result of the progression of renal failure and the profound dysfunction of other organs, death occurred 72 hours after hospitalisation.

Many authors conclude in their works that the combined use of several types of SCs and SCBs increases the likelihood of cardiotoxic lesion developing. Ezaki et al. (2016) studied the results of forensic autopsies in Tokyo from 2011 to 2015. Among all the conclusions studied, acute intoxication and myocardial ischemia were the main causes of death among people who combined SCBs and SCs. Fujita et al. (2015) analysed six patients with acute SCB and SC intoxication. They concluded that the simultaneous use of two psychoactive substances increased the likelihood of heart failure and death.

In conclusion, the use of SCBs and SCs presents significant health risks, particularly affecting the respiratory, neurological, psychiatric, and circulatory systems. The clinical manifestations during the acute phase of intoxication, such as tachycardia and arterial hypertension, highlight the severe and potentially life-threatening impacts of these substances. The variability in chemical compositions of NPS, coupled with the rapid emergence of new variants, poses challenges for health professionals in managing and mitigating their effects. The documented cases of respiratory failure, psychosis, cardiovascular complications, and fatalities underscore the urgent need for enhanced awareness, comprehensive data collection, and targeted intervention strategies. Through continued research and education, health-care providers can better understand the complex health risks associated with NPS and improve outcomes for those affected by their use.

Clinical Symptoms of New Psychoactive Substances in Children

Children and adolescents are particularly vulnerable to the adverse effects of NPS. The clinical symptoms in this population can differ from adults due to physiological and developmental differences. Common symptoms of NPS intoxication in children include severe agitation, hallucinations, and aggressive behaviour. Cardiovascular effects such as tachycardia and hypertension are also prevalent. Additionally, gastrointestinal symptoms like nausea and vomiting are frequently observed. The impact on mental health is significant, with many cases reporting acute psychosis, anxiety, and depression. Understanding these symptoms is crucial for early identi-

fication and effective treatment, thereby minimising the long-term health consequences for young individuals exposed to NPS.

Below, we present an analysis of the literature data describing disorders and symptoms that occur with NPS intoxication among minors. Unfortunately, current publications are limited to descriptions of a series of clinical cases or individual reports of poisoning with various synthetic drugs. Among the cases of exposure of minors to NPS, it is worth distinguishing between two groups: children and adolescents. Children typically consume NPS accidentally, often when parents or adults fail to restrict access to these substances. In such cases, the poisoning develops rapidly and requires urgent resuscitation measures, as it is accompanied by the impairment of vital bodily functions (Ruiz-Maldonado et al. 2021). The second largest group of poisonings registered by emergency departments pertains to adolescents. During adolescence, the use of NPS occurs deliberately, with the intention of seeking pleasure or for recreational purposes. However, an analysis of the publications reveals that adolescents do not always understand that they are consuming a specific narcotic substance and do not fully realise the extent of its destructive effects. Meanwhile, specialists in paediatrics and toxicology emphasise the significant health risks, which are exacerbated by the use of synthetic drugs with enhanced toxic potential. According to Anderson et al. (2019), teens who used synthetic cannabinoids had a higher likelihood of experiencing seizures and coma compared to those who used cannabis. Among 75 adolescents aged 10 to 19 using synthetic cannabinoids, 67% had neuropsychiatric disorders (Gilley et al. 2021).

Using the American Association of Poison Control Center's database, the effects of synthetic cathinone on children under the age of 20 were studied. The results showed that 5.5% of synthetic cathinone ingestion was complicated by seizures. Among these cases, 50.7% of individuals had a single seizure, 39.7% had multiple seizures, and 9.6% had status epilepticus. One 17-year-old adolescent experienced hallucinations and myoclonic jerks after using a synthetic cannabinoid. An ECG showed sinus tachycardia. Another 17-year-old adolescent developed anxiety, hyperreflexia, and tachycardia after smoking 'Spice' (Tekulve 2014). A 16-year-old adolescent who had been chronically using synthetic cannabinoids for three years suffered a perforated duodenal ulcer (Buyukbese 2016). A case of diffuse alveolar haemorrhage and respiratory failure was reported in an 18-year-old adolescent following an overdose of butyrfentanyl (Cole et al. 2015).

The use of new psychoactive substances can be fatal for adolescents. In one case, a 17-year-old adolescent 'began gasping for breath and collapsed'

in the morning, and death was later confirmed. The individual's blood contained 5F-PB-22 at a concentration of 1.1 ng/mL and ethanol at 0.033 g/dL. In another case, an 18-year-old young man was found dead at a party with a blood concentration of 5F-PB-22 at 1.5 ng/mL (Mohr 2016). Reports of an increased risk of psychosis among adolescents using NPS are causing significant concern. This can lead to suicidal attempts, which in turn increases the mortality rate (Morini 2017).

In the context of Central Asia, the situation regarding the use of NPS by minors is complicated by the limited research into this issue and the low awareness among parents and specialists about how to provide assistance to children who have experience of using NPS. Minors who use synthetic drugs may have sharp mood swings and be emotionally unstable. Sluggishness, lethargy, and immobility can be replaced by aggressiveness, irritability, and hostility. The school performance of such children decreases, and their memory deteriorates. They lose their former interest in hobbies, become immersed in themselves, and narrow their circle of communication. There is a noticeable change in their daily rhythms: during the day, the teenager sleeps, but at night they're awake. The child may spend an unreasonable amount of money, constantly looking for and borrowing money. Yellow and brown stains may appear on their clothes, and they may be in possession of suspicious things such as powders, capsules, pills, syringes, needles, gauze and cotton swabs, rubber tourniquets, and small bills rolled up in tubes or torn in half. All of the above may be symptoms of NPS abuse by children and adolescents (Alymkulova 2019).

For medics and paediatricians, it's crucial to be vigilant about the diverse and often severe symptoms of NPS intoxication in children and adolescents, which can range from severe agitation and hallucinations to cardiovascular issues like tachycardia and hypertension and gastrointestinal problems such as nausea and vomiting. Given the significant mental health impacts, including acute psychosis, anxiety, and depression, a comprehensive diagnostic approach is essential. This includes a thorough clinical assessment, a detailed patient history, and the use of appropriate diagnostic tests to identify NPS use and its effects. Early identification and prompt intervention can significantly mitigate the long-term health consequences for young individuals exposed to these substances. Continuous education and training on the latest trends and symptoms associated with NPS use are critical for maintaining an effective clinical response.

Conclusion

This comprehensive review of the health risks and clinical impacts of NPS underscores the significant and multifaceted challenges these substances present to public health. The findings highlight that both synthetic cannabinoids and synthetic cathinones pose severe risks to multiple organ systems, including the respiratory, neurological, psychiatric, circulatory, and gastrointestinal systems. The rapid and unpredictable nature of NPS variants exacerbates these risks, making it difficult for healthcare providers and law enforcement to effectively monitor, regulate, and treat the adverse effects associated with their use.

Particularly alarming are the documented cases of acute respiratory failure, psychosis, cardiovascular complications, and fatalities resulting from the use of NPS. These cases emphasise the urgent need for enhanced awareness, comprehensive data collection, and targeted intervention strategies to mitigate the harmful effects of these substances. The significant health burden imposed by NPS is not limited to those with physical dependence but extends to a broader population experiencing severe health consequences from their risky use.

The impact on children and adolescents is particularly concerning. This vulnerable population exhibits a range of severe symptoms, including severe agitation, hallucinations, aggressive behaviour, cardiovascular issues like tachycardia and hypertension, and gastrointestinal problems. The mental health impacts, such as acute psychosis, anxiety, and depression, are also profound, necessitating a vigilant and comprehensive diagnostic approach from paediatricians and toxicologists.

Addressing the challenges posed by NPS requires a multifaceted approach, including continuous research, education, and the development of effective harm reduction measures. Healthcare providers must stay informed about the latest trends and symptoms associated with NPS use to provide timely and appropriate care. By enhancing our understanding and response to the health risks posed by NPS, we can improve outcomes for those affected and contribute to the overall effort to combat the growing challenge of drug abuse globally.

Through increased awareness and strategic interventions, we can better protect public health and support individuals and communities affected by the use of new psychoactive substances.

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12. Web Outreach and NPS: A New Aspect of Online Harm Reduction (Illustrated by the Example of the St Petersburg Charitable Fund ‘Humanitarian Action’)

Alexei Lakhov, Nikolai Unguryan

Background

Drug-use levels remain high worldwide. In 2021, every 17th person aged 15–64 worldwide reported drug use in the past twelve months. The estimated number of people who use drugs (PWUD) increased from 240 million in 2011 to 296 million in 2021, constituting 5.8% of the world’s population aged 15–64 (UNODC 2023). According to experts’ estimates, in 2021, 13.2 million people used injectable drugs, an 18% increase from 2020. Eastern Europe (1.3% of the adult population) and North America (1.0%) remain the two subregions with the highest prevalence of people who inject drugs (PWID) (UNODC 2023).

According to joint estimates by the Joint United Nations Programme on HIV/AIDS (UNAIDS), the World Health Organization (WHO), the United Nations Development Programme (UNDP), and the World Bank, 1.6 million PWID (every eighth person) are living with HIV. Southwest Asia (29.3%) and Eastern Europe (25.4%) are the two subregions with the highest prevalence of HIV among PWID (UNAIDS 2024).

Over the past decade, drug markets have diversified. In addition to traditional plant-based drugs such as cannabis, cocaine, and heroin, there has been an expansion of synthetic drugs. Hundreds of new psychoactive substances (NPS) have been synthesised, with a significant portion being psychostimulants (UNODC 2022). After several years of stabilisation, the number of NPS on the global market increased in 2021. Of the 618 substances on the market in 2021, 87 were recently identified. The total number of NPS identified in the last 15 years reached 1,165 in 2021, and by 2022, preliminary data suggest it reached 1,184. The use of NPS has gained significant traction, particularly in Central Asia and Eastern Europe, as well as in some other regions (UNODC 2023).

The increasing use of the internet and other digital communication means, including darknet marketplaces for illegal drug trading, social me-

dia platforms, and other encrypted communication applications, is facilitating drug trafficking in new ways. Analysis of Darknet transactions indicates a shift towards wholesale distribution, while the volume of retail transactions on social media appears to be growing. Examination of transactions in blockchain systems on Darknet trading platforms shows that the average transaction value increased from approximately USD 100 in 2018 to USD 500 in 2021, accompanied by a noticeable reduction in the number of active buyers and transactions overall. According to UN reports, the drug buying and selling market is shifting towards social media, especially for cannabis, cocaine, and ecstasy, although new psychoactive substances are still predominantly bought and sold on Darknet forums (UNODC 2023).

Research conducted in six Eurasian countries—Belarus, Moldova, Serbia, Kazakhstan, Kyrgyzstan, and Georgia—indicates an increase in NPS use, predominantly psychostimulants (Kurcevič & Lines 2020). Similar data were obtained from an assessment conducted by the UNODC Programme Office in Eastern European countries, namely Ukraine and Moldova. In Russia, there is also a continuing increase in demand for synthetic psychostimulants (UNODC 2020a; UNODC 2020b).

The acquisition and distribution of NPS in Eastern Europe and Central Asia are primarily conducted through websites (including Darknet marketplaces), social networks such as VKontakte, Odnoklassniki, and Facebook, and various messengers such as Telegram, Viber, and WhatsApp. Additionally, drug users utilise these web platforms to communicate with each other, including on health preservation issues related to drug use. This opens up opportunities for service providers to conduct outreach work and harm reduction interventions in the online space.

It is also noteworthy that the Covid-19 pandemic, which began in 2020, has spurred innovation in the provision of assistance to drug users. Many tasks that previously required in-person assistance can now be addressed online, over the phone, or by mail. In some countries, rapid innovation has fundamentally changed the possibilities for delivering medical services to people who use drugs (UNODC 2023). Innovations in harm reduction technologies emerged as essential tools to maintain and even enhance the support for PWUD. Telehealth services were expanded, enabling individuals to access counselling and medical advice without the risk of virus transmission associated with in-person visits. Additionally, mobile apps were developed to provide users with resources for safe drug use and immediate help in case of overdose. Pharmacies and healthcare providers adopted mail-order services for the distribution of naloxone and safe consumption

supplies, ensuring that those in need continued to receive life-saving interventions despite the challenges posed by the pandemic. These adaptations not only addressed immediate health concerns but also set a precedent for long-term improvements in harm reduction outreach.

The advancements in harm reduction technologies during the Covid-19 pandemic highlight a shift towards more accessible and immediate support mechanisms for PWUD. This technological progression naturally leads us to the evolving landscape of web outreach. As digital platforms become increasingly integral to everyday life, they also open new avenues for reaching and assisting vulnerable populations. The integration of web outreach into harm reduction strategies represents a critical evolution in how services are delivered, making them more adaptable to the needs of individuals regardless of their physical location. The next section explores how web outreach is transforming traditional outreach methods, leveraging the power of the internet to expand and enhance the reach and effectiveness of support services.

The Concept of Web Outreach Work

The traditional concept of outreach among PWUD is defined as a ‘systematic approach to providing services to people who use drugs and their sexual partners in the most convenient settings for them’. The European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) defines outreach as ‘activities aimed at establishing contact with PWUD in their familiar places—on the streets, at home, in clubs’ (EMCDDA 1999). In the sphere of information technology (IT), there is a distinct definition of outreach. It is one of the directions in internet marketing, which involves an agreement with website owners or bloggers for the placement of banner advertisements, company mentions, and company recommendations and reviews.

Thus, we define online outreach work, or web outreach work (hereinafter referred to as web outreach) as a method of establishing contact with, consulting, engaging, and retaining PWUD in harm reduction programmes through websites, social networks, messengers, and specialised forums, including Darknet platforms (Davitadze et al. 2020).

As internet connectivity increased during the mid-1990s and early 2000s, PWUD gained access to a growing number of specialised online forums and websites focused on drug use, harm reduction, and the interactions

of different substances. Notable examples include the Daath forum in Hungary, the Bihai forum in Russia, and the r/Drugs community on Reddit, Erowid, and Bluelight in the United States.

By the 2010s, with the proliferation of Darknet marketplaces, harm reduction discussions began to shift to these hidden platforms. The Silk Road marketplace became a key example, with Fernando Caudevilla, a family doctor from Madrid, providing harm reduction advice under the pseudonym DoctorX. From April 2013 to February 2015, he responded to 1,146 questions. Of these, 931 were posted on public forums and garnered a total of 136,407 visits (Caudevilla 2024; Slovenská psychedelická spoločnosť 2018). After the closure of Silk Road and the arrest of its founder, Silk Road 2.0 emerged, indicating the resilience of Darknet-based harm reduction efforts (Maras 2013).

In 2016, the Apdes organisation in Portugal introduced ‘netreach’, a method wherein outreach workers engaged with PWUD through eight identified web forums, offering harm reduction guidance. This approach allowed outreach workers to interact with users on platforms where they discussed psychoactive substances. The project ‘Rapid Assessment & Response’, implemented by Apdes, allowed the organisation to train the first national web outreach team in order to provide an assessment of the needs of people who use NPS. The team responsible for the implementation of the ‘netreach’ method found it to be a valuable experience and views it as an effective method for engaging with individuals who might otherwise be overlooked: those who use drugs in private or seek drug-related information on the internet (Vale Pires/Caudevilla Gálligo/Valente 2016).

In 2018, the Ukrainian project Harm Reduction 2.0 implemented a unique strategy in a Darknet marketplace, offering prevention kits such as HIV and hepatitis C tests, condoms, lubricants, and drug identification kits for synthetic psychoactive substances (a panel for twelve substances) through drug forums. The special appeal of this project stemmed from the inventive ways in which harm reduction kits were distributed. The organisers offered assistance to people using NPS through a system of announcements and personal messages on a drug forum. Additionally, clients could independently submit applications for harm reduction kits using the contact details of outreach consultants. Packages with harm reduction kits were delivered via the postal system or parcel terminals or could be left in Kyiv at any pre-designated place. In the latter case, outreach consultants used a method familiar to NPS consumers for benign purposes—the method of drug drops (stash) with predetermined GPS coordinates. During the five-

day active phase of the project, approximately 300 individuals viewed the announcement posted on the drug forum. The team received 18 requests for harm reduction kits. Additionally, twelve individuals participated in HIV and hepatitis C testing; of these, one individual tested positive for hepatitis C (Bezverkhaya 2018).

In the same year, the St Petersburg Charitable Fund ‘Humanitarian Action’ in Russia developed a web outreach methodology based on both international experiences and its own research. This method used a multi-platform approach, leveraging websites, social networks, messengers, and specialised forums, including those on the Darknet. All web outreach workers noted that they only received positive feedback regarding their efforts. The needs of PWUD were divided into two main categories, based on whether they could be completely or partially met online. For fully online services, web outreach workers assisted PWUD in managing minor complications from injection drug use, accessing reliable harm reduction information, and obtaining general psychological support. For services that were partially online, PWUD received help in dealing with severe complications from injection drug use, managing overdoses, and accessing offline medical, psychological, social, legal, and harm reduction services (Davitadze et al. 2020).

Supported by the UNODC Regional Programme Office in Eastern Europe, this methodology has gained traction among service providers working with PWUD in Eastern Europe and Central Asia. In 2021, the UNODC’s Recommendations «Web – outreach for people who use drugs» were published for those NGOs that were interested and wanted to take their first steps in the field of web outreach services (Lakhov 2021).

Goals and Objectives of Web Outreach Work

The aforementioned examples illustrate that not all services can be effectively provided solely online. Nonetheless, the digital realm often serves as the initial point of contact for many clients who fall outside the scope of conventional harm reduction services.

The EMCDDA states that web-based interventions should be overseen by trained and experienced counsellors, ensure privacy protection, and be connected to offline services to refer users to existing health and social services. It is also crucial to note that web outreach work should not replace traditional outreach efforts. A web-based strategy can help professionals

engage with online drug-using communities and track emerging drug use trends (Ferri/Bo 2013).

While web-based strategies enable effective engagement with online communities and facilitate the monitoring of evolving drug use trends, the design and execution of such interventions must be contextually grounded. The goals of web outreach are determined by the service provider depending on the local context, including legal, temporal, and financial capabilities and resources, as well as the inherent characteristics of the drug scene in a specific region. The goals of web outreach may include raising PWUD awareness of available governmental and non-governmental services, in an attempt to increase the number of participants (clients) in programmes for the prevention and treatment of HIV infection, viral hepatitis, tuberculosis, and drug addiction, and increase the number of individuals who get tested for HIV, viral hepatitis B and C, and syphilis, as well as their adherence to services. The objectives of web outreach encompass establishing contact with PWUD on familiar platforms in both the open and 'shadow' segments of the internet—on social networks, in messenger channels and chats, on forums at Darknet drug marketplaces; informing and advising PWUD on a wide range of issues related to accessing various services, maintaining health, preventing socially significant infections, and treating various diseases; and connecting PWUD with relevant services such as harm reduction programmes, government healthcare, and social service institutions. Web outreach tasks also cover the collection and analysis of 'field' information that can be used to forecast new trends in drug use, to adapt HIV infection, viral hepatitis, tuberculosis, and drug addiction prevention and treatment programmes, and to warn people about the spread of drugs through harmful adulterants. From the perspective of everyday practice, web outreach aims at retaining PWUD in harm reduction programmes by requesting feedback regarding their satisfaction with services provided, conducting motivational activities, and providing a platform for communication with each other and with programme staff.

Tools and Methodology of Web Outreach Work

The tools of web outreach may include websites; messengers (chats, channels, groups, and private messages); social networks; specialised forums in both open and 'shadow' segments of the internet, including 'dating boards' for men who have sex with men (MSM); smartphone applications, includ-

ing dating apps, email newsletters, and chatbots (which work on websites or in messengers); and other tools.

Like other areas of harm reduction, web outreach has an arsenal of technologies and methods that are regularly added to and improved upon. Below we will elaborate on each method separately.

The first method of web outreach is establishing contact with PWUD. As noted earlier, both the sale and acquisition of narcotic substances on the drug markets of the Eastern Europe and Central Asia (EECA) region are carried out through chats, channels, groups, and bots in various messengers, primarily Telegram, as well as Darknet marketplaces and specialised forums. Thus, the administrators of these platforms serve as important 'entry points' for web outreach workers to share information about various medical-social services on the platform, promote health preservation during drug use, and engage users in discussions on these topics, as well as invite them to participate in prevention and treatment programmes.

Key considerations for web outreach workers when communicating with administrators include politeness; positioning themselves as a representative of an organisation assisting PWUD; positioning themselves as an active or former PWUD; their focus on assisting PWUD; patience when waiting for a response to queries; and willingness to calmly answer questions about affiliation with law enforcement agencies.

Another way to disseminate information on the platform is to register a new account or use an existing one to post information without prior agreement with the administrator. However, this increases the risk of the account getting blocked or deleted from the platform.

Furthermore, an organisation can establish contact with PWUD by creating its own channels, chats, and groups on messengers, its own website in the open and/or 'shadow' segments of the internet, bots (which can operate both in messengers and on websites), and other online communication tools.

The second method of web outreach is informing and advising PWUD. This can be done through personal phone calls, messaging in messengers (WhatsApp, Telegram, etc.), and on social networks. In addition to online communities, the contact information of staff and recruited specialists, including their usernames on social networks and messengers, can be placed on business cards distributed at mobile and stationary points (drop-in centres) during outreach in hospital wards and other locations, such as nightclubs. According to Rolando et al. (2023), social media and messaging apps like Telegram and WhatsApp are increasingly popular for buying

drugs because they are easier to access than the darknet and are seen as safe environments. This trend becomes especially relevant in those countries that pursue an active policy of blocking drug marketing web platforms and severely punishing NPS trafficking. For NPS-using clients, the coded algorithms of Telegram have become the only secure alternative for transactions. For harm reduction operators, this raises new challenges and opportunities for web outreach.

A closed chat or group for beneficiaries on messengers can function as an online platform for PWUD to address various requests to staff, including referrals to assistance programmes, trusted doctors, etc. Staff members can be assigned roles (profiles) according to their position in the organisation, such as ‘social worker’, ‘doctor’, ‘HIV consultant’, ‘PR, cooperation’, ‘psychologist’, ‘narcologist’, ‘lawyer’, etc.

This allows chat or group participants to ask questions relevant to the staff member’s role, such as questions regarding: the possibility of document restoration; the initiation or resumption of antiretroviral therapy (ART), therapy for viral hepatitis or tuberculosis, or treatment of sexually transmitted infections (STIs); the possibility of receiving narcological treatment; and in-person appointments with medical specialists of various profiles in state healthcare institutions.

Chat participants can also share their experiences and health complaints, as well as discuss various events—both personal and socio-political. To avoid ‘flooding’—the deliberate exchange of messages unrelated to the discussion topic—and ‘off-topic’ messages, it is preferable to moderate such chats.

Searching for messages and topics in a Telegram chat can be achieved using keywords and a tagging system assigned to the topic. Additionally, a specially created website or landing page can be used to inform PWUD on specific topics, such as overdose prevention or chemsex.

The third method is connecting PWUD with relevant services. Upon request, PWUD may be redirected to various services run by government and non-profit organisations. Additionally, an organisation/institution staff member may suggest contacting a particular service during client counselling.

Web outreach cannot be carried out in isolation from direct agreements with assisting organisations. Personal communication between the web-outreach and the client establishes a certain level of trust. Therefore, if it is not possible for the beneficiary to receive the promised service—for example, hospitalisation in a narcological ward or placement under ob-

servation in an AIDS centre—within the promised time frame, negative information about the organisation as a whole may spread. It is especially important to remember this in the era of instant messaging through messengers and social networks. The peer-to-peer method and non-judgmental stance, fundamental to outreach efforts, are also crucial for the success of web outreach interventions.

One of the simplest ways to involve specialists from assisting organisations to facilitate the subsequent redirection of beneficiaries is to invite them to lead webinars, podcasts, or live broadcasts on social media on specific topics (HIV treatment, viral hepatitis, tuberculosis, features of ART, narcological assistance, etc.). During their presentation, the invited specialist can respond to specific questions from listeners and invite some of them for personal consultations, especially if the webinar, podcast, or broadcast is advertised in advance as providing such an opportunity.

The fourth method is collection and analysis of ‘field’ data. This data can be utilised for forecasting new trends in drug use, understanding methods of acquisition and distribution of narcotic substances, adapting harm reduction programmes, alerting the public to the emergence of products with harmful additives on the drug market, describing and assessing risks, developing risk reduction strategies, evaluating and creating contingency management plans, and other purposes.

Finally, the retention of PWUD in assistance programmes is also a key method of web-based harm reduction. Collecting feedback from beneficiaries—both positive and critical—enables organisations to monitor the quality of staff work and respond to client needs, for example by changing the locations of mobile units or adjusting the operating hours of stationary facilities to be more convenient for the target group of PWUD. Additionally, it allows the beneficiaries themselves to feel involved in the organisation’s work and understand that their opinions are truly valued.

Conducting raffles and giveaways is also a significant factor in retaining PWUD in the programme. As an example, there is a so-called ‘roulette’—a giveaway of various prizes among participants in the closed Telegram chat that involves randomly selecting a participant’s account using a special bot. The main prizes includes bonus cards from a supermarket chain of a certain denomination, and consolation prizes included motivational kits for HIV prevention.

Furthermore, providing beneficiaries with the opportunity for direct contact with organisation staff and each other in chats, forums, and other online platforms is itself a factor in client retention in the programme. If

they know about the existence and accessibility of online services, beneficiaries can be confident that they will not be deprived of vital information when they are ready to receive it.

Given the basic overview we have provided in the previous sections of the chapter, we would like to emphasise the importance of practical experience in conducting web outreach work. Like other harm reduction approaches, web-based outreach requires an understanding of the context of all services provided in a particular community, as well as the opportunities and barriers to their implementation and expansion. In the next section of the chapter, we will look at the authors' personal experiences in building and strengthening web outreach work as part of NGO activities.

The Case of the St Petersburg Charitable Fund 'Humanitarian Action' (Russia)

The St Petersburg-based charitable fund 'Humanitarian Action' dates back to 1997, to a programme run by the French association *Médecins du Monde*, which launched the first mobile harm reduction unit in Russia. In 2001, the fund was officially registered under its current name.

Traditionally, the main clients of the fund's programmes were people who use opiates and opioids, including synthetic ones such as methadone. Services available to them included the exchange of used needles and syringes, testing for HIV and viral hepatitis, and distribution of the opioid receptor antagonist naloxone. However, in the mid-2010s, the situation in St Petersburg began to change; synthetic cathinones, particularly mephedrone and alpha-PVP, became increasingly popular. In addition, the sale and purchase of drugs began to take place increasingly online. This forced the fund to adapt to the new conditions and develop a web-based outreach methodology.

Currently, the primary channels for drug distribution and interaction among PWUD and drug dealers in the city are chats, channels, and bots on the Telegram messenger, as well as Darknet marketplaces with forums. Telegram is predominantly used for distributing the synthetic opioid methadone. Darknet marketplaces are used by PWUD for purchasing synthetic cathinones, other stimulants, drugs of plant origin, and hallucinogens.

The city of St Petersburg is divided into 18 districts. In each district, several Telegram drug stores (vendors) operate, presented as chats or channels. A web outreach worker of the fund 'Humanitarian Action' (hereinafter

referred to as the outreach worker)—an active drug user personally familiar with the drug acquisition system in the city—contacts the administrators of these shops and offers to post information about the fund’s services (free and anonymous rapid testing for HIV, viral hepatitis B and C, and syphilis, the distribution of harm reduction kits, etc.), the schedules of mobile and stationary low-threshold units, and the possibility of online consultations with various specialists (a narcologist, a surgeon, a psychologist, and peer consultants on HIV, viral hepatitis, and addiction).

Additionally, the outreach worker invites participants to join the closed chat and subscribe to the fund’s channels, answers questions, and can initiate discussions related to HIV prevention, viral hepatitis, and other healthcare topics.

Shop administrators either agree or refuse to post this information. In some cases, the outreach worker is blocked. In several cases, administrators granted the outreach worker co-administrator rights, allowing her to post information in the vendor’s name.

In addition to drug shops, there are chats on Telegram designed, among other things, to enable PWUD to communicate with each other to meet potential romantic partners, to raise money for the treatment of various diseases, to exchange items, etc. The key value here is that these platforms are created, administered, and populated by PWUD themselves. The outreach worker suggests posting information about the fund’s services in these chats as well. Seeing these announcements, participants can contact the outreach worker directly via private messages to obtain more detailed information about the fund’s services.

Another of the fund’s staff members reached out to forum administrators of one of the Darknet marketplaces with a proposal to post information about the organisation. The administrators allowed this and also provided the opportunity to create topics on the forum. As a result, topics were created on free and anonymous HIV testing in St Petersburg, including contact information for various services, on the prevention and treatment of viral hepatitis, and on several other topics. PWUD could be contacted on the forum through comments that could be left under each topic.

In addition to actively engaging PWUD in its programmes on external platforms, the fund has launched a closed Telegram chat for its beneficiaries, access to which can be obtained only through a link provided by administrators. It has also launched several open Telegram channels on the following topics: news from the world of drug policy; positive and critical

feedback from the fund's beneficiaries on its work; and daily updated schedules and other news about the organisation's activities.

Typically, when a chat participant requests a particular service or consultation, administrators respond by connecting the individual with one of the organisation's competent staff members capable of addressing the specific issue. For instance, requests received by the online narcologist through the chat (as well as through the Telegram bot) are usually related to managing withdrawal symptoms from various psychoactive substances; counselling on mental health issues; managing acute drug intoxication; and other issues.

Questions addressed to the organisation's surgeon may involve the treatment of post-injection complications such as abscesses, burns, allergic reactions, etc. The specialist may request a photograph or video of the affected area, ask clarifying questions about symptoms, provide recommendations regarding the use of healing ointments, and motivate the individual to seek personal medical attention at a private or public healthcare facility.

PWUD can also establish contact with organisation representatives through a Telegram bot if they require first aid in case of drug overdose. The bot enables the individual to communicate directly with a remote narcologist who provides consultations to the organisation, as well as with a staff member positioned as a 'peer' consultant on opioids who is authorised to respond to relevant queries and with 'non-narcophobic' psychologists.

By analysing Telegram channels on drug use and its own data, the organisation has identified the prevalence of NPS on the illegal drug market, predominantly synthetic cathinones. Conducting surveys in thematic Telegram chats and channels, as well as surveying its own beneficiaries at mobile units, has enabled the organisation to tailor a motivational kit for drug users, equipping it with items relevant to this target group, such as biodegradable single-use nasal straws, ointments for nasal mucosa care, informational materials on providing first aid in case of NPS overdose, etc.

Another example of how the organisation uses its online capabilities is the survey it conducted in a closed Telegram chat on the convenience of using 1-ml syringes from various manufacturers. Based on the survey results, as well as focus group discussions, a specific syringe model was determined.

Another analysis of beneficiaries' requests revealed their need for information on self-care for post-injection complications caused by 'street' methadone injections. As a result, an organisation staff member—an active drug user herself—together with a surgeon, developed a short informational

resource on caring for post-injection complications, which is distributed in Telegram chats and channels for PWUD.

Web Outreach in Kazakhstan: Challenges and First Achievements

In Kazakhstan, according to the Financial Monitoring Agency, the situation with online drug availability is similar to other countries in the region where illegal drug marketing has also gained momentum. In 2023, about 300 channels in messengers, mainly Telegram, as well as four large Darknet marketplaces, which operate in various countries of the Commonwealth of Independent States (CIS), came to the Agency's attention. As a result of the monitoring of the Kazakhstani segment of the internet, three large sites for the sale of drugs—with a total of almost 35,000 participants—were identified. It was also possible to estimate that almost 10,000 users of these platforms are potential users of narcotic drugs. The analysis showed that more than 50% of PWUD come from Astana, Almaty, and Almaty region. Overall, 36 drug stores with a turnover of 25.6 billion tenge were also identified (Litvinova 2024).

Thus, the implementation of harm reduction programmes in the online space is a highly relevant and urgent issue for Kazakhstan. Local communities of people who use drugs have already launched such projects with the support of the UN Office on Drugs and Crime, the Eurasian Harm Reduction Association, and the Global Fund to Fight AIDS, Tuberculosis and Malaria. In 2019, Kazakhstan saw the launch of the first Telegram support channel for people using NPS. The main goal of online peer-to-peer counselling is to provide assistance on online platforms based on web outreach consultants' own life experience. In 2024, six Telegram channels that provide support to people using NPS successfully operate in four regions of the country, covering 800 individuals and providing advisory assistance in matters of information, referral, and consulting with friendly doctors. Within the framework of the Almaty model for controlling the HIV epidemic ICAP at Columbia University, funded by the Elton John AIDS Foundation, the NGO Revansh distributes harm reduction kits to people using NPS. Among the challenges and barriers that reduce the opportunities for implementing web outreach in the country, experts list fear and distrust of such services on the part of clients, unstable project financing, and difficulties in understanding all the support mechanisms (Mankieva 2022). In the latter case, training and education supported by international

organisations such as the UNODC, the Global Fund, and the Eurasian Harm Reduction Association provide significant assistance (Figure 1).



Figure 1: Regional training on web outreach for Central Asian NGOs organised by the UNODC (authors' compilation)

To build a sufficient number of web outreach consultants, it is crucial to implement cascading training of representatives from the civil sector, as well as an information campaign among other stakeholders providing services to individuals using NPS.

Conclusion

The digital transformation has played a critical role in harm reduction outreach among PWUD. From specialised internet forums to Darknet marketplaces, innovative methods such as web outreach have emerged to address the needs of PWUD, highlighting the adaptability and resilience of harm reduction efforts in the digital age.

This trend is also reflected in the World Health Organization's 'Consolidated guidelines on HIV, viral hepatitis and STI prevention, diagnosis, treatment and care for key populations'. The adapted 2022 document mentions a new recommendation on virtual interventions: 'Online delivery of HIV, viral hepatitis, and STI services to key populations may be offered as an additional option, while ensuring that data security and confidentiality are protected (conditional recommendation, low certainty of evidence)' (World Health Organization 2022). In these cases, choice is important, and online services should form a part of a menu of services, not stand-alone interventions, and should not be a replacement for face-to-face contact. In addition, efforts should be made to increase equitable access to the internet, improve literacy, and provide appropriate training for key population members where needed. Consideration should be given to the preferences of different key population groups, given the current lack of published evidence from sex workers and PWID.

The findings and initiatives discussed in this chapter highlight the pressing need for robust harm reduction strategies when it comes to the online drug market. As online drug channels proliferate, particularly on platforms like Telegram, the government and local organisations must intensify their efforts to monitor and mitigate these activities effectively. The success of pilot programmes, such as the peer-to-peer counselling and support channels on Telegram, demonstrates the potential of targeted online interventions. However, to scale these efforts nationally, stable funding and broader community trust in these programmes are imperative. It is recommended that countries expand these initiatives with sustained financial support from both national and international bodies and by increasing educational outreach to build trust and understanding among potential programme participants.

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13. Navigating New Drug Challenges: The Societal Impact of Compulsory Drug Treatment and Legal Penalties

Zhanara Nurseitova

Introduction

In modern society, the problem of drug addiction remains one of the most acute and topical issues. Drugs have a devastating impact on the lives of people who use drugs (PWUD), their loved ones, and the broader community. The ramifications of drug addiction are far-reaching, affecting not only the physical and mental health of PWUD but also the emotional and financial stability of their families. The societal implications include increased crime rates, higher healthcare costs, and strained public resources. The addictive nature of these substances often drives individuals into cycles of destructive behaviour, further perpetuating their dependence and the associated negative consequences.

During the course of their illness, PWUD are prone to lead antisocial lifestyles and engage in illegal activities, increasing their risk of incarceration. This antisocial behaviour is often a direct result of the need to obtain and use drugs, which can lead to actions such as theft, violence, and other criminal activities. The criminal justice system responds by imposing sanctions, typically in the form of imprisonment, aimed at isolating and restricting these individuals to maintain public safety. However, this punitive approach often fails to address the underlying issues of addiction and may not prevent recidivism once the individual is released back into society.

When punishing a person who uses psychoactive substances, society imposes sanctions in the form of isolation and restrictions to maintain public safety. The prison environment can exacerbate the problems associated with drug addiction, as individuals may be exposed to further criminal influences and find it difficult to access the necessary treatment and support for their addiction. In light of these challenges, an alternative solution that has gained attention is compulsory treatment. This approach focuses on mandatory rehabilitation and therapy, aiming to address the root causes of addiction and facilitate the reintegration of PWUD into society as productive members.

In this chapter, the focus is placed on the impact of compulsory drug treatment and existing penalties on both PWUD and social dynamics. The chapter discusses the importance of balancing the goals and their possible consequences. Social dynamics is the study of how individuals and groups behave and interact within a society, and how these interactions and behaviours change over time. This field examines the patterns, processes, and structures that emerge from social interactions and how they influence social order, stability, and change. Understanding these dynamics is crucial for developing effective policies and interventions that can mitigate the negative impacts of drug addiction on both individuals and society as a whole.

Through a detailed analysis of various approaches to addressing drug addiction, this chapter aims to shed light on the effectiveness of compulsory treatment versus traditional punitive measures. By examining case studies, statistical data, and theoretical frameworks, it seeks to provide a comprehensive understanding of the complex interplay between addiction, societal response, and long-term outcomes for PWUD. The goal is to offer insights that can inform more compassionate, effective, and sustainable strategies for managing drug addiction within the community, ultimately leading to improved public health and social stability.

Compulsory Treatment: Protection or Violation of Rights?

While the rationale for prison isolation is relatively straightforward—PWUD have violated the law and thus warrant punishment—the issue of compulsory treatment is far more complex. This complexity raises numerous questions, one of the most significant being: ‘Compulsory drug treatment: protection or violation of rights?’

A highly contentious issue in the field of drug addiction is the implementation of compulsory treatment programmes. These programmes typically involve the confinement of PWUD in specialised drug treatment centres or psychiatric hospitals, with the primary objectives of curbing drug use and facilitating rehabilitation. However, such measures are subject to intense debate due to concerns about the infringement of individual rights and freedom of choice, as well as questions regarding their overall effectiveness.

Opponents of compulsory treatment argue that it violates basic human rights, including the right to liberty and security of person. They point out

that compulsory treatment is often ineffective and can cause psychological harm to the patient, increasing their feelings of helplessness and alienation. In addition, in countries with high levels of corruption, there is a risk of abuse of power and the use of forced treatment for personal or political purposes.

In contrast, proponents of compulsory treatment argue that it is necessary to protect society from the drug epidemic. They point out that drug dependence is often accompanied by disorderly behaviour, crime, and other negative consequences that can threaten the safety of others. They see compulsory treatment as an important tool to ensure the safety of society and to help individuals overcome addictions that they are incapable of overcoming by themselves.

When analysing meaning of these two opposing arguments, it is clear that some are based on the interests of PWUD and others on the interests of society. If we put the interests of the individuals above the interests of society, then according to the methods of treatment, for a positive result in the form of stable remission, individuals must be successfully reintegrated into society and have the ability to make an independent decision about treatment, even if it takes some time. At the same time, during this period their whole family could face traumatisation, including children, who may have unfavourable childhood experiences, and even neighbours, who may also experience psychological trauma at best and physical consequences at worst.

If the interests of society are to be prioritised, isolation is seen as the only effective solution, especially at the earliest stage of addictions. Drug addiction is rightly considered an epidemiological disease, and just like with an epidemic, it is necessary to localise the source. According to recent research, one person who uses drugs 'hooks' on average up to five people a year, not including other consequences such as psychological trauma for their family and neighbours, various crimes, and even murders. These five people, in turn, will also 'hook' five people a year, and some number of individuals using drugs commit crimes under the influence. This method of spread is very similar to a viral one. For this reason, some specialists draw an analogy between drug addiction and a pandemic.

In 2023 in Almaty, 653 drug-related crimes were registered (Almaty City Police Department 2024). However, information about other crimes, such as robberies or domestic violence related to drug use, is not publicly available. One can only speculate as to the real numbers. Additionally, it is important to remember that PWUD often have their own family, in

which children are raised in a dysfunctional environment and have a high potential for addiction themselves, which is the best-case scenario. Often, children born to parents with addictions have various health problems, and the responsibility for their care eventually falls on the state. Therefore, the necessity of compulsory treatment in the interests of society becomes an obvious solution. However, it should be understood that this might take away their chance for remission.

Supporters of isolation argue that, even under favourable conditions, only about 15%–20% of all PWUD have a chance at sustained remission, similar to cancer patients in the late stages of cancer (Chernyshov 2008). It should be understood that with compulsory treatment, the chances for a full life are even lower, with only a small percentage of PWUD benefiting from such treatment. Most often, PWUD return to substance use within the first weeks of re-entering society after compulsory treatment. Even those who had a good chance at remission face lowered chances of remission through compulsory treatment, which is undeniably cruel (Volkow 2021). In order to effectively analyse the impact of compulsory treatment on social dynamics, it is necessary to analyse another dilemma that requires public resolution: is drug addiction a disease or a crime?

In addition to compulsory treatment, there are other punitive measures for PWUD, even those who have not committed a crime, such as administrative fines, imprisonment, and correctional labour. If society persists in categorizing drug addiction as a disease, it consequently finds itself in the paradoxical position of punishing individuals for their illness. If drug addiction is a crime, then punishment for drug use is a logical measure.

Balancing Individual and Societal Interests

In recent decades, the question of whether drug addiction is a disease or a crime has remained one of the most heated and debated issues in society. This dilemma has generated conflicting views among the public, human rights organisations, medical professionals, and legislators. The answer to this question has a direct impact on legal norms, policies to combat drug addiction, and public attitudes towards drug dependence. After all, if it is a disease, it should be treated. It would be strange, for example, to give a cancer patient ten days of administrative arrest, but this is exactly what happens to PWUD for their behaviour.

At present, lawmakers are moving towards a more humane form of punishment but it is worth paying attention to the motives that prompted them to do so. The rationale behind this decision is not that Kazakhstan has deliberately chosen a definitive path towards humanization. The reason is more straightforward: drug use is being reclassified from a criminal offense to an administrative one. The crux of this move lies in the procedural inconveniences faced by the police when processing such offenses. Currently, a local police officer must find two witnesses, prepare the necessary materials, and follow other procedures in accordance with the criminal procedure code. If the article on drug use is moved to the administrative code, the processing procedure will be significantly simpler. This vividly demonstrates the conflict that exists even within a single country regarding the approach to drug addiction and whether it should be treated as a disease or a crime, and serves as a clear example of societal contradictions. This conflict is characteristic not only of Kazakhstan but also of several other countries, especially those in the Commonwealth of Independent States (CIS).

For example, in Russia, drug distribution and use are strictly punished, reflecting an approach that considers drug addiction a crime. However, similar to Kazakhstan, there is an option for compulsory treatment, which acknowledges drug addiction as a disease (Avilov & Toropov 2020). Meanwhile, in some European countries, such as Portugal, drug addiction is considered a disease, and the entire system is geared towards the rehabilitation and treatment of addicted individuals. Each treatment stage complements the next, and the logic behind the approach is evident (Rêgo et al. 2021).

Choosing between these concepts is an extremely important task for our society, as it requires an understanding of all the pros and cons. We will first consider the arguments in favour of viewing drug addiction as a disease. The medical perspective emphasises the fact that drug addiction is characterised by changes in the brain caused by chemical impacts on neurochemical systems. These changes can lead to physical and psychological dependence, requiring medical intervention for treatment and recovery. Drug addiction is accompanied by the formation of certain behavioural habits associated with drug use. These habits may include visiting specific places, interacting with certain people, or engaging in specific actions. Therefore, similar to other chronic diseases such as cancer, diabetes, or asthma, drug addiction requires lifelong management and treatment through therapy and behavioural correction. The dependent individual must adhere to several restrictions, such as lifelong abstinence from alcohol, and it is crucial to avoid triggers that might rekindle the desire to use drugs.

A public health approach to substance use has shown long-term positive effects on society (Crépault 2023). It is treatment, not imprisonment, that can increase social reintegration and reduce the rate of drug-related recidivism. A medical approach aimed at the rehabilitation and support of addicted individuals facilitates their return to society and decreases the likelihood of repeat offenses. This also helps reduce the stigmatisation of drug addicts and creates conditions for more effective management of their condition.

On the other hand, the argument that drug abuse is a crime relates to its impact on public safety and order. Drug abuse can lead to crime, including theft, robbery, and violence, as well as drug trafficking, which is an offence under the law. Such acts are harmful to society and its members and are therefore punishable under the penal code. Drug use is often associated with crime, violence, and other antisocial behaviours. Punishment helps to protect society from these negative consequences.

In addition, strict punishment often serves as a preventive deterrent for those who have not yet started using drugs. Also, understanding the inevitability of punishment gives society confidence and peace of mind, as for the most part society does not deal with the details of the drug addiction problem. In modern sociology and psychology there is a concept of 'moral panic' when public opinion is subject to an excessive reaction to certain phenomena. In the case of drug addiction, the public often focuses on the perceived negative aspects, such as increased crime rates and disadvantage in public places (Bennett 2018). This perception contributes to policies that focus on repressive measures instead of developing comprehensive programmes for the treatment and prevention of drug dependence. Responding to public demand, in the face of public indifference to the problem of drug addiction, the state tends to adopt measures aimed at appeasing public opinion, such as punishing drug use, instead of implementing long-term solutions such as prevention and education.

On the one hand, punishment may seem unfair and ineffective in treating drug addiction. Instead of helping people overcome their addiction, punishment may deepen their problems, increase social exclusion, and make rehabilitation more difficult. On the other hand, a lack of accountability for drug-related offences can lead to impunity and increase the negative consequences of drug addiction for society as a whole. Punishment for drug-related offences can serve as a deterrent and prevent offences related to drug use and distribution from being committed. It is important to understand that fully recognising drug addiction as a disease carries

significant legal implications. For instance, individuals may be acquitted of offenses, similar to those with severe mental disorders. This can result in lifelong isolation for the affected individuals.

The concept of drug addiction as a disease involves various medical, social, and economic aspects, each with its own advantages and disadvantages. On the medical side, the idea is scientifically valid, based on significant research showing that addiction results from changes in the brain and genetic predispositions. Treating drug addiction as a medical problem allows for the use of evidence-based methods such as drug therapy, psychotherapy, and rehabilitation programmes, which have been proven effective and have a better long-term impact on society than imprisonment. Additionally, treating drug addiction as a disease helps reduce the stigma associated with addiction, encouraging society to view PWUD as sick people in need of help rather than as criminals or morally inferior individuals.

However, there are cons to this approach. The medical system often faces resource constraints, limiting access to quality treatment for all in need, and inefficiencies can have broader social impacts. Drug treatment can be lengthy and require constant monitoring, placing a strain on the healthcare system. Drug addiction is often accompanied by other mental disorders, complicating the treatment process and requiring a multidisciplinary approach.

From a social perspective, recognising drug addiction as a disease facilitates the establishment and support of social programmes to help PWUD rehabilitate and reintegrate into society, thus reducing their isolation. Focusing on education and prevention helps reduce drug abuse in society, preventing new generations from developing addiction. Yet, there are potential downsides. The recognition of drug addiction as a disease can lead to the perception that addiction is completely independent of an individual's will, reducing personal responsibility. If PWUD do not feel social pressure and responsibility for their behaviour, their motivation to seek treatment and change their lifestyle may diminish, potentially leading to negative recovery outcomes. Social prejudice can persist, making it difficult to change public opinion. Prejudice, lack of support, and challenges in finding employment can make reintegration difficult for drug-dependent individuals. Access to social programmes and quality treatment can vary significantly by region, posing a barrier to achieving widespread success.

Economically, treating drug addiction as a disease may be more cost-effective in the long run than incarcerating addicted people and dealing with the consequences of their activities. Successful treatment and rehabilitation

enable PWUD to re-enter the labour market, boosting overall productivity and reducing social burdens. Effective treatment and prevention reduce the overall healthcare costs associated with the consequences of drug use. However, implementing and sustaining effective treatment and rehabilitation programmes requires a significant initial investment. Financial constraints may prevent equal access to quality treatment for all drug-dependent individuals. Economic benefits can vary depending on the effectiveness of programmes and the level of government and community support. Allocating government medical budgets to drug dependence treatment may reduce funding for other important areas of health and social care, leading to community dissatisfaction. The economic benefits of reducing drug abuse may only be realised in the long term, requiring significant initial investment and patience.

Reconsidering Punitive Measures

Recognising drug addiction as a disease has significant potential benefits but also requires the legal consequences to be considered. Legislative reforms and changes in the legal framework may be necessary, potentially causing resistance from various political and social groups. There are risks of legal conflicts and ambiguities, such as manipulating the diagnosis to avoid responsibility for drug-related offenses. The judicial system will need to adapt to the new environment, which may cause difficulties and errors in law enforcement, particularly in the initial years. Resolving the conflict of views on drug dependence requires finding a compromise between the different approaches. Combining medical and legal perspectives may be ideal, recognising addiction as a disease requiring treatment and rehabilitation while imposing just punishments for crimes committed under the influence of drugs. This comprehensive approach includes developing specialised treatment programmes, ensuring access to rehabilitation, and improving the judicial system's flexibility in responding to individual cases. Educating the community is crucial to overcoming stigma and promoting social reintegration following treatment. Coordinating medical, legal, and social institutions can lead to significant improvements in public health and safety.

A hypothesis can be considered for a potential algorithm to implement a combined approach. For example, when detaining an individual for personal use of drugs without the intent to distribute them, PWUD should

be referred to undergo a diagnostic examination procedure provided by an expert panel. This panel will determine the severity of the addiction and the subsequent need for isolation in rehabilitation organisations. The primary goal of this step is to diagnose and assess the condition of the person based on medical criteria. For the panel to make an objective and well-founded decision and to implement appropriate subsequent measures, existing legislation should be amended to distinguish between different drugs. For instance, cannabis and synthetic cannabinoids should be considered as entirely different drugs. It is necessary to create a quality post-rehabilitation treatment infrastructure as a tool to prevent relapses for those who have undergone rehabilitation. This infrastructure should involve professional addiction specialists working according to the '12-step' method.

Individuals detained for using synthetic drugs, such as synthetic cannabinoids and synthetic cathinones, who are deemed to be in need of in-patient treatment, should be mandated to undergo compulsory treatment, followed by mandatory monitoring. A system for monitoring PWUD during and after treatment and rehabilitation should be developed. This system should include regular reporting and evaluation of the effectiveness of treatment, with provisions for adjusting post-rehabilitation programmes as necessary. Such measures aim to minimise the risk of relapse and provide individuals with the necessary support to motivate them in their recovery.

It is important to note that early and timely isolation of the individual from their family and community may be considered a strategic component of a comprehensive approach to drug treatment and rehabilitation. This intervention can yield significant benefits for the individual, their immediate environment, and society as a whole.

Benefits for the individual include reducing the impact of a negative environment by removing them from settings that contribute to their addiction, such as access to drugs and negative social connections. In specialised facilities, individuals can focus on their recovery without external pressures or temptations. Additionally, these centres provide access to specialised medical care, offering professional medical and psychological treatment, including detoxification, therapy, and rehabilitation programmes. The concentrated attention from medical staff ensures faster and more effective treatment, which helps accelerate the recovery process. Furthermore, life in a rehabilitation centre is structured and orderly, helping individuals regain discipline, self-management, and healthy lifestyle habits. These facilities often provide training and occupational therapy programmes, aiding in the restoration of life skills and preparation for social reintegration.

For the families of those undergoing treatment, the benefits include reduced stress and emotional burden, as isolating a person with addiction diminishes the significant stress and anxiety experienced by family members. This allows the family to focus on rebuilding normal relationships and their own lives. Ensuring safety is another benefit, as early isolation can prevent potentially dangerous behaviours by the person with addiction, such as aggression, theft, or maladaptive behaviour, thereby increasing family safety. The family is protected from the possible negative consequences of addiction, such as financial loss or legal problems. Specialised centres also offer support and education for families, helping them better understand addiction and learn effective ways to interact with and support their loved one. They can also start their own recovery through programmes designed for co-dependents.

Society also reaps significant benefits from such interventions. Isolating people with addiction from the community can lead to a reduction in drug-related crime, including theft, robbery, violence, and rape, as well as preventing people with addictions from influencing their neighbourhood. Reducing the number of people with addictions on the streets enhances overall safety and peace of mind in the community. Economically, there are reduced costs associated with enforcement measures such as arrests, trials, and incarceration, due to more effective treatment and rehabilitation. There is also an increase in the health and productivity of those who receive treatment, allowing them to return to active lives and contribute to the economy. Improved public health is another advantage, as the isolation and subsequent treatment of people with addictions reduces the risk of infectious diseases such as HIV and hepatitis, which are often associated with drug use.

A Comprehensive Approach to Drug Treatment

Compulsory treatment can be an effective tool in certain cases. For example, within the framework of the ‘Narcostop’ project, we have observed instances where relatives placed their loved ones in compulsory private treatment centres (Narkostop.kz 2024). These centres, adhering to high standards of treatment and individualised approaches, yielded positive results. Patients became sober, learned to manage resistance and cravings, and developed psycho-emotional self-regulation skills. Even in cases of relapse,

individuals often independently decided to undergo rehabilitation again, leading to stable remission.

For those severely addicted and unable to consciously choose treatment, compulsory intervention can be a crucial step towards recovery, providing them with the clarity of sobriety to make informed decisions. Additionally, compulsory treatment helps prevent further addiction and health deterioration. Without such intervention, people with addictions may continue using drugs, risking severe physical and mental health decline and an increased likelihood of death from overdose or drug-related illnesses.

Continuing the concept of drug addiction as a disease, according to our hypothesis, a hybrid approach should also be applied to individuals who have committed crimes under the influence of drugs. Rehabilitation, followed by a prison sentence, should be the norm. Crimes committed under the influence of drugs are thus considered in court, with a medical assessment taken into account. Punishments account, and punishments should include rehabilitative programmes. Internationally, many states already have experience in interdisciplinary cooperation between healthcare and law enforcement agencies. The creation of specialised centres for the treatment and rehabilitation of people with addictions under the jurisdiction of the legal system is a logical continuation of this cooperation in our country.

There are precedents for the successful integration of medical and legal measures, such as drug courts in the USA, which combine judicial procedures with mandatory therapy and monitoring. The financial costs of creating and maintaining specialised prisons for treatment and rehabilitation can be offset by reducing the costs of keeping these same prisoners and lowering the crime rate (Longshore et al. 2001).

We believe that this hypothesis maximally satisfies the interests of different groups. Society demands effective measures to reduce drug addiction and related crimes. The hybrid approach meets these expectations by offering comprehensive solutions aimed at punishment in the form of isolation, treatment, and rehabilitation. Unlike the punitive system, this approach reduces the risk of repeated offenses by addicted individuals and increases their chances of returning to social behaviour. Recognising drug addiction as a disease meets the demand for the humane treatment of PWUD, which is especially important in the context of modern human rights and social justice values.

Returning to the analysis of the impact of compulsory treatment on social dynamics, it should be noted that a positive outcome is only possible with the creation of the necessary conditions.

Compulsory treatment can increase the stigmatisation of people who use drugs and further alienate them from society. PWUD in compulsory treatment may face discrimination and social isolation after leaving the programme, making it more difficult for them to reintegrate into society and increasing the risk of relapse. This means that the circle of compulsory treatment can close and turn into life imprisonment.

Therefore, we believe that compulsory treatment is the best compromise, provided that the treatment is standardised and comprehensive. This approach should include a thorough diagnosis and determination of the treatment method, followed by detoxification. Patients should engage in work to manage resistance and cravings, which may involve medication therapy. Developing psycho-emotional self-regulation skills and essential life skills, such as self-care, is crucial. Additionally, it is vital that individuals learn to foster self-discipline and understand their personal responsibility, through the restoration of neural connections between actions and consequences. The treatment should incorporate individual and group psychotherapy sessions aimed at changing behaviour and thinking patterns, alongside occupational therapy. Planning for the future is essential, as are post-rehabilitation socialisation programmes and therapeutic groups to prevent relapse. Continuous follow-up monitoring should also be part of the process to ensure sustained recovery.

The treatment period should last at least twelve months under a highly restrictive regime. In this case, the person with addiction has an increased chance of subsequently deciding independently on the need for treatment, even in the event of a breakdown. A humane approach, based on understanding addiction as a disease, can encourage PWUD to seek help and undergo treatment, knowing that their problem will be met with sympathy and understanding.

Public awareness of the disease can help reduce stigma, which in turn can accelerate individuals' social reintegration after treatment and increase the likelihood of successful rehabilitation. Within the 'Narkostop' project, we have observed similar processes in microsystems, suggesting that as awareness is scaled up, stigma will change. This in turn will influence societal processes as a whole. Public support for a humane approach can lead to the development of more effective drug prevention, treatment, and rehabilitation programmes, as they will enjoy greater public support and funding.

The impact of drug trafficking offenses, such as the issue with couriers, warrants special attention. In Kazakhstan, the number of individuals con-

victed for drug distribution is increasing rapidly. Notably, many of these individuals are not people with drug addictions. When such people, who lack a criminal mindset, are imprisoned for long periods, they often adopt criminal behaviour. This has a profoundly negative effect on society, as criminal thinking is contagious. Prisons become breeding grounds for sharing criminal experiences and ideas, perpetuating a criminal subculture and spreading criminal behaviour.

The classification of prisons as regular, administrative, or maximum-security prisons was originally introduced to address this issue. However, many drug dealers are young individuals with no prior criminal experience, and long-term imprisonment can have lifelong negative consequences for them. The punitive approach has several drawbacks for society. Imprisonment requires significant societal resources to maintain prisoners, including direct costs for their upkeep and indirect losses from potential economic contributions. Additionally, it diverts resources from education, science, and other areas that promote social and economic progress.

Imprisonment for first-time offenders can lead to the destruction of their personality and the loss of social ties, exacerbating social disintegration and increasing violence, repeated theft, and other crimes. This threatens public safety and order. Furthermore, imprisonment often fails to provide effective rehabilitation tools. Instead, it fosters negative attitudes and criminal behaviour, increasing the risk of reoffending. Ex-prisoners frequently struggle to find employment and reintegrate into society due to their criminal records, often leading them to conceal their past and live illegally.

Punishment should be inevitable, but the approach needs to be changed from punitive to educational. Criminal thinking, like drug addiction, has a contagious effect, leading to societal degradation. For first-time offenders, alternative measures of punishment should be introduced. Initial stages of the investigation should involve restrictions on freedom, such as pre-trial detention, to dispel any romanticised notions of prison. The term of punishment should not exceed seven years, with parole possibilities for successful rehabilitation.

In prison, there should be rehabilitation standards, including daily sports, reading, studying, and film discussions. After two years, prisoners should have the opportunity to work while still living under prison conditions, with electronic bracelets preventing escape. This helps with socialisation and addresses staff shortages in various sectors. Exams should be online, centralised, and biometric to avoid corruption. Successful comple-

tion of psychological and other tests should allow parole and release after three and a half to five years.

This approach aims to reintegrate fully-fledged members into society, maintaining their social ties and avoiding a criminal mindset, thereby contributing positively to the economy. Balancing the protection of society from crime with the protection of individual rights and dignity is crucial. Compulsory treatment can be effective against drug abuse if accompanied by a humane approach and respect for human rights. Social support and rehabilitation programmes are essential for successful reintegration.

Harsh punitive measures can stigmatise and socially exclude individuals, hindering their rehabilitation and resocialisation. A humane approach, based on respect for human rights and individual needs, is necessary for effective outcomes. Creating accessible, quality treatment, rehabilitation, and support services is vital. Drug and crime policies should protect society while ensuring the rights and dignity of all individuals, including those with drug abuse problems.

Public indifference and a focus solely on maintaining public order hinder the effective resolution of drug addiction issues. Public opinion and political strategies should recognise drug addiction as a complex medical and social phenomenon requiring a comprehensive approach and active societal participation. A balanced approach that includes compulsory drug treatment, a humane infrastructure, and community sensitivity is essential for achieving the best results.

Conclusion

The complexities of drug addiction and its societal impact necessitate a multifaceted approach that balances punitive measures with humane, rehabilitative strategies. Compulsory treatment can be effective, especially for individuals who are severely addicted and unable to seek help voluntarily. However, this approach must be comprehensive and standardised, focusing on detoxification, resistance management, psycho-emotional self-regulation, and the development of life skills. Ensuring continuous support through post-rehabilitation programmes is crucial for sustained recovery.

Punitive measures, while necessary, should be re-evaluated to avoid the long-term negative effects on individuals and society. The hybrid approach proposed in this chapter aims to integrate rehabilitation with legal consequences, offering a more humane and effective solution. This

includes specialised treatment centres under legal jurisdiction, similar to drug courts, which combine judicial procedures with mandatory therapy and monitoring.

Public awareness and understanding of drug addiction as a disease can reduce stigma, encouraging individuals to seek help and facilitating their reintegration into society. This shift in perception can lead to the development of more effective drug prevention, treatment, and rehabilitation programmes, supported by public and governmental efforts.

Ultimately, a balanced approach that combines compulsory drug treatment, rehabilitative measures, and a humane infrastructure, along with community sensitivity, is essential for achieving the best results. Society must strive to protect itself from the consequences of drug addiction while ensuring the rights and dignity of individuals affected by this condition. This comprehensive strategy can lead to a healthier, safer, and more inclusive society.

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Biographies

Mariya Prilutskaya, PhD, is a postdoc at the SOLID Project (Kazakhstan) and an associate professor at Semey Medical University (Pavlodar, Kazakhstan). She graduated from Astana Medical University in 2008 and has worked as a psychiatrist for fifteen years. The sphere of her professional interests is drug addiction. In the last seven years, she has focused on the problems of novel psychoactive substances in the clinical practice of Kazakhstani doctors. Mariya Prilutskaya studies the epidemiological and clinical aspects of drug addictions caused by synthetic cannabinoids and cathinones in Kazakhstan. She is a member of International Society for the Study of Emergent Drugs and International Society of Substance Use Professionals. She participated in the development of national clinical standards for the management of addictions caused by novel psychoactive substances. Her research activities have been supported by the Central Asia Drug Action Programme (CADAP) and United Nations Office on Drugs and Crime (UNODC).

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Elena Molchanova is a full professor of the Psychology Department at American University of Central Asia, Bishkek, Kyrgyz Republic. She is an MD, earned a postgraduate degree in Psychiatry and has undergone extensive training in clinical psychology and psychotherapy, including at the Aaron Beck Institute (USA), led by Judith Beck. Elena is the author of more than 60 articles in highly rated academic journals, as well as the co-author of monographs and clinical manuals.

Sergei Bessonov is the project coordinator at the Attika Harm Reduction NGO, whose mission is advancing harm reduction programmes and policies, engaging in the national policymaking processes, and developing the strategy on prevention of drug misuse, overdose, HIV, TB, HCV, and other socially significant diseases in vulnerable groups, as well as providing access to testing and self-testing. Sergei's educational background is in economics and sociology, and he coordinates country-wide projects. Sergei's research focuses on community engagement and fair access of vulnerable populations to medical, social, and legal services. It was with Sergei's immediate involvement that the project on advancing the Take Home Naloxone effort, supported by World Health Organization (WHO) and UNODC, was successfully implemented, providing support to people under risk of opioid overdose.

Zhyldyz Bakirova is deputy director of the Republican Center of Psychiatry and Narcology in Bishkek, Kyrgyzstan, and a PhD student at the International University of Kyrgyzstan. She is trained as a psychiatrist and has participated in a number of international research projects, including the CADAP annual report and the study 'Needs and gaps in treatment and rehabilitation for people who use drugs in selected countries of Eastern Europe and Central Asia'. Zhyldyz is an expert of the National Group of developers and pilots of the United Nations Office on Drugs and Crime (UNODC) quality assurance tools and has published articles on opioid overdoses and the drug rehabilitation process in the Kyrgyz Republic. Her research interests include social work in the treatment continuum, drug treatment, and psychoactive substances.

Tatiana Galako, MD, PhD, is the co-chair for the Kyrgyz Psychiatry Association and chair and associate professor of the Department of Medical Psychology, Psychiatry and Narcology at Kyrgyz State Medical Academy. Dr Galako has taught psychiatry courses to undergraduate, graduate, and post-graduate medical students and mentors their research projects and

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Danil Nikitin has been representing the Global Health Research Center of Central Asia since 2007 and heading the Global Research Institute (GLORI Foundation) since 2011. He earned his master's degree in Social Work from Columbia in 2006. Internships with the UJA-Federation, Open Society Institute, and Social Intervention Group at Columbia University contributed a lot to his professional development. Prior to his graduate studies, he worked with Osh Regional Narcological Center as a programme administrator. After graduating from Columbia, Danil returned to Kyrgyzstan and as a director, principal investigator (PI), and co-investigator, he leads monitoring and evaluation projects and intervention and prevention research in drug-using communities. The GLORI Foundation that Danil runs hosts the first and only non-government Committee on Bioethics, which provides high-quality expertise to researchers who focus their studies on Kyrgyzstan.

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Jakhongir Ravshanov is a PhD student at Tashkent Medical Academy, specialising in psychiatry and narcology, focusing on suicidal behaviour

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Vladimir Magkoev is a psychiatrist and works at the City Center for Narcology in Dushanbe. In 1998, he completed his clinical residency in psychiatry at the Avicenna Tajik State Medical University. In the following years, he worked on various programmes related to the use of psychoactive substances, including harm reduction and drug demand reduction initiatives. While working at the Drug Control Agency under the President of the Republic of Tajikistan from 2000 to 2004, he participated in reforming the country's drug control legislation, focusing on its mitigation.

Yifan Xu is a social worker currently working as a research assistant in the Addiction Medicine Research Group at the Shanghai Mental Health Center. With a multidisciplinary background in Psychology and Anthropology from Colorado State University, she has contributed to addiction research through assessments, evaluations, and data collection. Her work has extended to shaping addiction outpatient MDT services and designing training programs, highlighting her commitment to advancing addiction medicine. Her research interests focus on both substance and behavioral addictions, as well as the stigma associated with these conditions.

Haifeng Jiang is the Deputy Chief Physician, Medical Doctor, and Master's Supervisor at the Shanghai Mental Health Center. His academic background includes a bachelor's degree from Shanghai Second Medical University (09.1999–06.2004), a master's degree from Shanghai Jiao Tong University School of Medicine (09.2008–06.2011), and a doctoral degree (09.2011–06.2014). Dr Jiang Haifeng's professional field focuses on clinical, teaching, and research work related to drug dependence. He has participated in multiple research projects, including the National 12th Five-Year Plan for Science and Technology Support, the Shanghai Municipal Science and Technology Commission, the National Institutes of Health's project in the United States, and the Shanghai Anti-Drug Fund project. His research focuses on the neurophysiological mechanisms of psychological craving in the abuse of amphetamine type stimulants, and he has received funding from the National Natural Science Foundation of China Youth Science Fund and the Shanghai Health Bureau Youth Research Project. He has published multiple papers and participated in the writing of three monographs. Dr Jiang Haifeng has also served as a youth member of the Drug Dependence Professional Committee of the Chinese Society of Toxicology and a member of the Addiction Medicine Working Committee of the Psychiatry Branch of the Chinese Medical Association, demonstrating his professional abilities and contributions in the prevention and treatment of addiction-related issues.

Zhandos Aktayev, Master of Law, is Chairman of the 'Esbol Qory' Public Foundation for the Prevention of Addictive Behavior and national consultant of the UNODC. He is an expert engaged by the central state bodies of the Republic of Kazakhstan (the Ministry of Internal Affairs of the Republic of Kazakhstan, the Ministry of Health of the Republic of Kazakhstan, the Ministry of Culture and Information of the Republic of Kazakhstan, etc.), as well as international organisations in the field of prevention of depend-

ent behaviour and violations of law related to drug trafficking. He participated in the development of relevant draft laws and strategic documents in the Republic of Kazakhstan and the Central Asian region.

Valentina Mankieva is a narcofeminist and trainer. She is head of the Central Asian Women's Network 'Amal' and a member of the Steering Committee of the Eurasian Harm Reduction Association for the Central Asia region, as well as a representative of the community of people who use drugs on the Country Coordinating Committee for HIV, AIDS, and tuberculosis under the Government of the Republic of Kazakhstan. Since 2009, she has been working in the non-profit sector on projects related to the prevention of socially significant diseases. Since 2015, her work has been closely connected with advocacy, human rights, and mental health issues, as well as leadership and activism.

Vitaliy Vinogradov is the Director of HIV Prevention Programs for Vulnerable Groups and Training Coordinator of the Center for Scientific and Practical Initiatives in Almaty, Kazakhstan. With extensive experience in public health and non-governmental organization (NGO) management, he has coordinated staff, managed budgets, and developed training programmes for both NGOs and health professionals. Previously, he served as Program Director at the Center for Global Health Research at Columbia University. He is currently pursuing a master's thesis in social work based on his published research. He is Chair of the Steering Board of the Eurasian Coalition on Health, Rights, Gender and Sexual Diversity (ECOM).

Nikolay Lunchenkov is a medical doctor and doctoral candidate at the Technical University of Munich, TUM School of Social Sciences and Technology. He specialises in HIV infection and drug use among gay, bisexual, and other men who have sex with men in Eastern Europe and Central Asia. His research focuses on the complex relationships between HIV transmission, substance use, and sociocultural factors such as stigma and discrimination, using qualitative methodologies. Drawing on his experience as an LGBT health coordinator at the Eurasian Coalition on Health, Rights, Gender, and Sexual Diversity, and as a research fellow at the Robert Koch Institute, Dr Lunchenkov addresses the unique challenges faced by marginalised communities in the EECA region. His expertise includes studying the phenomenon of chemsex and its impact on HIV transmission and overall health outcomes within the LGBTQ+ community.

Heino Stöver, PhD, is a social scientist and Professor of Social Scientific Addiction Research, Faculty of Health and Social Work at the University of Applied Sciences in Frankfurt, Germany. Since 2020 he has been the project director of the DAAD project 'Social work and strengthening NGOs in development cooperation to treat drug addiction' (SOLID) of the Frankfurt University of Applied Sciences. Since 1987, he has been the director of the Archive and Documentation Centre for Drug Literature and Research at the Frankfurt University of Applied Sciences (www.archido.info/) and the Institute of Addiction Research of the University of Applied Sciences in Frankfurt. His main fields of research and project development expertise are health promotion for vulnerable groups, drug services, prisons, and related health issues (especially HIV/AIDS, hepatitis C, and drug dependence). He is also a consultant for the European Commission, the United Nations Office on Drugs and Crime, WHO, the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), the International Committee of the Red Cross (ICRC), and the Open Society Institute (OSI) in various contexts. He has published several articles in international journals and books on adequately preventing and treating infectious diseases (HIV/AIDS, hepatitis, STIs, and TB), opioid substitution programmes, and drug treatment in general.

Ulla-Britt Klankwarth is an MA student in "Criminology and Violence Research" at the University of Regensburg, Germany. She holds a B.A. in Social Work and is a research assistant at the Institute for Addiction Research at the University of Applied Sciences in Frankfurt am Main. Her main research interests include women in prison and alternatives to imprisonment.

Ainur Shukimbayeva, MD, is a researcher at the Pavlodar branch of Semey Medical University. She graduated from Semey Medical University in 2009. She has been working as a cardiologist for more than ten years. For the last four years, she has been actively engaged in research work related to the study of cardiovascular changes in patients abusing new psychoactive substances. She is participating in the development of an algorithm for early diagnosis of cardiovascular diseases in drug users of new psychoactive substances (synthetic cathinones).

Aigerim Zhumasheva is a Master of Medical Sciences and paediatrician. In 2021, she completed her residency in paediatrics at the Pavlodar branch of Semey Medical University. In 2024, she completed her master's degree

in Medicine at Semey Medical University. She has devoted the last two years to studying the problems of substance abuse among children and adolescents. She is the author of the article ‘The problem of psychoactive substance use in pediatric practice: a somatic aspect. Literature review’ in the journal *Pharmacy of Kazakhstan*. She is the author of the methodological recommendations ‘*The problem of substance abuse among minors: a clinical aspect*’, dedicated to primary care doctors, emergency care, and students. She has worked as a paediatrician for more than five years.

Alexei Lakhov has been working in different Russian and European NGOs in the field of HIV infection, viral hepatitis, and substance abuse prevention since 2011. He used to work as the Development Director of the largest Russian harm reduction programme ‘Humanitarian Action’ (Saint Petersburg), and as a consultant for WHO Europe, the Joint United Nations Programme on HIV/AIDS (UNAIDS), UNODC, HIV Justice Network, and Coact. Currently, he is an executive director of the European Network of People who Use Drugs (EuroNPUD). From 2022 to 2024, he was an NGO Europe delegate to the Programme Coordinating Board of UNAIDS. He has participated in numerous research projects for peer-reviewed journals on new psychoactive substances and online harm reduction and authored a web outreach manual for the UNODC Programme Office in Eastern Europe.

Nikolai Unguryan is a psychiatrist specialising in addiction treatment, a clinical psychologist, and an international consultant for Eastern Europe and Central Asia under the UN’s UNODC (United Nations Office on Drugs and Crime). He specialises in synthetic psychostimulants, including amphetamines and cathinones, and has extensive experience working in this area. He possesses a wide range of knowledge and skills in both the medical management of these conditions and psychotherapeutic approaches. He actively collaborates with major NGOs (non-governmental organisations) that focus on the prevention of HIV infection and viral hepatitis, as well as on providing support to people in socially dangerous situations. During the Covid-19 pandemic, considering the restrictions on in-person consultations, he continued to provide active online consultations for patients with anxiety disorders and issues related to accepting diagnoses. In 2017, he graduated from Omsk State Medical University with a degree in General Medicine. From 2017 to 2019, he completed a residency in Psychiatry and Addiction Treatment. In 2019, he pursued training in Clinical Psychology. From 2019 to 2021, he worked at the Omsk

Narcological Dispensary, providing outpatient and inpatient care as a child psychiatrist specialising in addiction treatment. From 2021 to 2023, he worked in the Emergency Department of the City Narcological Hospital in St. Petersburg. He also completed a residency in Psychiatry from 2021 to 2023 and served as an expert on several NGO projects focused on the social and medical support of people using new psychoactive substances.

Zhanara Nurseitova is a behavioural specialist, social psychologist, civil activist, and volunteer with over 15 years of experience in non-profit organisations. She holds a master's degree in Social Psychology and has led numerous projects focused on systemic changes in ecology, children's and women's rights, legislative infrastructure for NGOs, and addiction issues. Zhanara is an expert in government relations, strategic planning, team coordination, and programme implementation. She has pioneered a unique project in Kazakhstan for individuals with drug and gambling addictions, offering comprehensive support, including post-rehabilitation. Her team has conducted significant research in addiction, contributing to legislative changes. Zhanara regularly participates as an expert in working groups on ecology, rights advocacy, and addiction issues. She also conducts educational seminars for government leadership and heads an investment fund supporting social entrepreneurs to achieve financial sustainability and drive systemic change through innovative projects.

List of Acronyms

3-MMC	3-Methylmethcathinone
4-CMC	4-Chloromethcathinone
α -PBP	α (alpha)-Pyrrolidinobutiophenone
alpha-PVP	α (alpha)-pyrrolidinopentiophenone
ART	Antiretroviral therapy
bk-MMBDB	Dibutylone Hydrochloride
BS	Behavioural sensitisation
BtMG	German Narcotics Act
CAAP	Central Asian Association of People Living with HIV
CADAP	Central Asian Drug Action Programme
CADCA	Community Anti-Drug Coalitions of America
CARICC	Central Asian Regional Information Coordination Centre for Combating Illicit Trafficking of Narcotic Drugs, Psychotropic Substances and their Precursors
CIS	Commonwealth of Independent States
CND	UN Commission on Narcotic Drugs
CNS	Central nervous system
Covid-19	Coronavirus disease 2019
CPP	Conditioned place preference
CT	Computed tomography
DCA	Drug Control Agency under the President of the Republic of Tajikistan
DD	drug discrimination
DRD	Drug-related deaths
DSA	Drug self-administration
ECHO CG	Echocardiography
EECA	Eastern Europe and Central Asia
EHRA	Eurasian Harm Reduction Association
EMCDDA	European Monitoring Centre for Drugs and Drug Addiction
EU	European Union

List of Acronyms

EUR	Euro
EWNA	Eurasian Women's Network on AIDS
FAST	Families and Schools Together
GBL	Gamma butyrolactone
GBMSM	Gay, bisexual, and other men who have sex with men
GHB	Gamma hydroxybutyrate
GHRCCA	Global Health Research Center of Central Asia
GIZ	German Society for International Cooperation
Global Fund	Global Fund to Fight AIDS, Tuberculosis and Malaria
GLORI	Global Research Institute
CSTO	Collective Security Treaty Organization
HCV	Hepatitis C virus
HIV	Human Immunodeficiency virus
HPLC	High-performance liquid chromatography
ICD-10	International Classification of Diseases, Tenth Revision
IDEC	International Drug Enforcement Conference
IMTs	Interdepartmental mobile teams
INCB	International Narcotics Control Board
INTERPOL	International Criminal Police Organization
IT	Information Technology
KR	Kyrgyz Republic
LGBTQ+	Lesbian, gay, bisexual, transgender, queer or questioning, or another diverse gender identity
MDMA	3,4-Methylenedioxyamphetamine
MDPBP	3',4'-Methylenedioxy- α -pyrrolidinobutyrphenone
MDPV	Methylenedioxypropylvalerone
MSM	Men who have sex with men
MTS	Minority stress theory
NGOs	Non-Governmental Organizations
NHS	National Health Service
NIACDC	National Information and Analytical Center for Drug Control under the Cabinet of Ministers of the Republic of Uzbekistan
NIH	National Institute of Health

NNCC	National Narcotics Control Commission
NNCO	National Narcotics Control Office in China
NPS	New psychoactive substances
OAMT	Opioid agonist maintenance therapy
OCFOCDC	Office for Coordination of the Fight against Organized Crime and Dangerous Crimes
OCG	Operations Coordination Group
PHE	Public Health England
PLIP	People living in prison
PrEP	Pre-exposure prophylaxis
PWID	People Who Inject Drugs
PWUD	People Who Use Drugs
RCCN	Republican Clinical Center for Narcology
RCPN	Republican Center for Psychiatry and Narcology
SCO	Shanghai Cooperation Organisation
SCBs	Synthetic cannabinoids
SCs	Synthetic cathinones
SFP 10–14	Strengthening Families Program for Children 10–14
STIs	Sexually Transmitted Infections
SUDs	Substance Use Disorders
TB	Tuberculosis
UAVs	Unmanned aerial vehicles
UNAIDS	United Nations Program on HIV/AIDS
UNDP	United Nations Development Programme
UNHCR	United Nations Refugee Agency
UNODC	Office on Drugs and Crime
USD	United States dollar
USSR	Union of Soviet Socialist Republics
WHO	World Health Organization