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United Nations Office on Drugs and Crime

INFORMAL SCIENTIFIC NETWORK STATEMENT: United Nations General Assembly Special Session on Drugs (UNGASS 2016)

I. Introduction

Approximately 250 million people, or 5 percent of the world's population, use illicit drugs each year, with about 27 million experiencing problematic drug use.¹ Drug use and addiction take a profound toll on public health contributing to over 187,000 overdose deaths, as well as the spread of infectious disease, and babies born with abstinence symptoms. In addition, drug use has tremendous economic costs to society as a result of lost productivity, and higher healthcare and crime related costs. Yet only about one in six of those in need globally has access to or receives drug use disorder treatment services each year.

The 2016 United Nations General Assembly Special Session (UNGASS) on Drugs provides an important opportunity for Member States, international organizations and civil society to discuss new perspectives and effective strategies to deal with the world's drug problems. The landscape of drug use and addiction continue to evolve with the increase of new synthetic drugs in the market, and change of drug policies by some Member States. In addition, our knowledge of effective prevention and treatment strategies continues to grow providing opportunities to mitigate the public health costs of drug use. In this changing landscape it is critical that the scientific community be engaged to inform an evidence based approach to policy making.² This document provides an overview of the state of the science on substance use prevention and treatment and provides recommendations of the UNODC Informal Scientific Network.

II. State of the Science

The development, course, and severity of substance use disorders³ (addiction is the most severe state of substance use disorders) are determined by a combination of biological, behavioral, social, and cultural factors. Not everyone who uses drugs or psychoactive substances develops a problem but in vulnerable individuals exposure can lead to addiction – a chronic brain disease similar to other chronic health conditions that have both behavioural and biological components such as cardiovascular disease and diabetes. Research in neurobiology, genetics, psychiatry, brain imaging, pharmacology, behavioural science, and sociology are contributing to a growing body of evidence that describes the factors that influence risk and resilience for drug use disorders, the mediators of addiction in the brain, and the impact of co-occurring mental illness.

Substance use disorders are complex disorders involving disruption of brain circuits that mediate reward, decision-making, learning, and self-control. They are characterized by

¹ <https://www.unodc.org/unodc/en/frontpage/2015/June/2015-world-drug-report-finds-drug-use-stable--access-to-drug-and-hiv-treatment-still-low.html>

² CND Resolution 58/7, *strengthening cooperation with the scientific community, including academia, and promoting scientific research in drug demand and supply reduction policies in order to find effective solutions to various aspects of the world drug problem*

³ *The scientific group recognizes that many recommendations should also address wider substance use such as nicotine and alcohol, as drug use is highly comorbid with the use of alcohol and tobacco. Because of the focus of UNGASS 2016 on drugs this will though not be in depth referred to in this document.*



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compulsive, uncontrollable drug craving, seeking and use that persist even in the face of extremely negative consequences. For many people, addiction becomes a chronic brain disease, with relapse possible even after long periods of abstinence⁴⁵. Substance use disorders are influenced by complex biological, social, environmental, and developmental factors that dynamically interact to influence risk, trajectory, and outcomes. Genetic variability explains a significant portion of an individual's risk for addiction. In addition, social and environmental factors can affect the function of neurocircuitry and even the expression (or non-expression) of genes in brain regions that mediate addiction. In vulnerable individuals, the right combination of biological and environmental risk factors can create a feed-forward cycle that drives the emergence and continuation of a substance use disorder.

Understanding the neurobiological basis of addiction reveals why punitive repercussions are unlikely to have an impact – they do not help the brain recover. This highlights the need for a public health centered approach to drug policy. However, stigma and discrimination continue to impact how drug and substance use disorders are treated across the globe. We encourage Member States to recognize that individuals with drug and substance use disorders often represent some of the most vulnerable members of society. Poverty, trauma, social disadvantages, abuse, neglect, adverse childhood experiences, and mental illness are all significant risk factors for developing problematic substance use and substance use disorders. Additionally, the utilization of psychoactive substances, even in the absence of a substance disorder, can have negative effects including car accidents, domestic violence, physical health and mental illness. Providing evidence-based prevention and treatment is critical for reducing demand and giving people with substance use disorders a chance for a stable recovery. The evidence shows that substance use disorders can be prevented and treated

III. Recommendations

The UNODC Informal Scientific Network encourages Members States to:

1. Eliminate stigma and discrimination towards individuals with substance use disorders

Stigma and discrimination are major roadblocks to the implementation of effective interventions for preventing and treating substance use disorders. A significant shift in public opinion and an increased awareness of the biological basis of addiction as a chronic brain disease will be required to adequately deal with the world drug problems. This involves a mental shift in perspective, from blame and social exclusion to compassion and societal support.

⁴ 3 Leshner A I, *Principles of drug addiction, NIDA, 1999:preface*

⁵ 4 Portenoy R K, *Acute and Chronic pain. In Lowinson J H, et al. (eds). Substance Abuse, Baltimore, Williams and Wilkins, 1997:563-90.*



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Substance use disorders are associated with increased health system costs and poorer health outcomes, often because they are not treated in a comprehensive, integrated healthcare model. With comprehensive care people do recover and go on to lead healthy productive lives. Primary care and behavioural health services should be available to persons affected by substance use disorders, without any discriminatory barrier or stigmatization. The scientific community urges Member States to build their policies around the recognition that substance use disorders are biological disorders with complex biopsychosocial vulnerability and to incorporate interventions that directly address stigma and discrimination in their drug and health policies.

2. Address drug use and drug use disorders as public health problems instead of criminal justice issues

Criminal sanctions are ineffective in addressing substance use disorders and discouraging substance use. They can even exacerbate substance use disorders and co-occurring mental illnesses by increasing social, emotional and financial stress. There are over 10 million people incarcerated worldwide (approximately 146 per 100,000) and many of these individuals have a history of problematic drug and substance use.

A public health approach to drug policy should also incorporate strategies that have been demonstrated to reduce the negative health consequences associated with drug use including the spread of infectious disease, overdoses, motor vehicle crashes, etc. Examples of evidence-based strategies include:

- Naloxone distribution to prevent overdose deaths associated with opioid use
- Access and expansion of medical treatment of opioid use disorders whether it is for heroin or prescription opioids (including agonist and antagonist medications)
- Outreach interventions including health screenings and integration of care for this high risk population to:
 - Prevent and treat somatic health disorders such as cardiovascular, lungs, liver and infectious diseases (ie HIV, Hepatitis C)
 - Prevent and treat mental health disorders and suicide related to drug use
 - Education and enforcement strategies to prevent drugged driving and reduce motor-vehicle crashes
 - Cleanneedle exchange programmes to prevent the spread of infectious diseases including HIV and Hepatitis C (HCV)
 - Ensure free-water is available in music and dance venues and educate drug users on the risks of dehydration and malignant serotonin syndrome

These interventions can decrease healthcare and law enforcement costs, improve public safety, and serve as a conduit to engage high risk drug and other substance users in treatment. Effective risk mitigation strategies should not be carried out in isolation, or as an alternative to demand reduction, but as part of a comprehensive plan responding to the need of the community.



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For individuals with substance use disorders who commit a criminal offence, the criminal justice system has a unique opportunity to engage them in treatment both during incarceration and as an alternative to incarceration. The flexibility of the International Drug Control Conventions permits Member States to apply alternatives to criminal sanctions in cases of drug possession for personal consumption, and in some cases of low level drug dealers. For those not confined, treatment services can be provided under the oversight of drug court programs, as a condition of probation or parole, or when appropriate, through direct police referral to treatment rather than arrest. Making sure those who need treatment services receive them can break the on-going cycle of drugs and crime leading to significant decreases in drug use and criminal activity as well as other public health outcomes such as the spread of HIV and Hepatitis C (HCV).

Providing unrestricted access to substance use disorder treatment and rehabilitation services, in the context of the criminal justice system, must reflect the same principles of evidence-based treatment applied to any other medical setting. Research has demonstrated that increasing the knowledge and skills of law enforcement officers, judges and penitentiary system staff, as it relates to the neurobiological and social underpinnings of substance use and substance use disorders, and the efficacy of available pharmacological and psychosocial treatment options, can improve outcomes by facilitating the implementation of evidence based prevention and treatment services.

The current body of knowledge, combined with previous policy experiences, suggest the need for a balanced approach targeting both demand and supply reduction. Policies to dismantle criminal organizations and counteract the illicit production and trafficking of drugs will not be effective if not integrated with systematic interventions to prevent and treat drug use disorders.

3. Implement evidence-based prevention programs

A significant body of research has shown that substance use disorders are preventable. Evidence-based prevention programs are available for use in different settings such as schools, recreational centres as well as for individuals at high risk. The recently published International Standards on Drug Use Prevention (UNODC, 2013), provide a systematic review of science based prevention methods that can serve as guidance to Member States.

Prevention activities should utilize evidence based methods adapted to the cultural, economic and social conditions of each country. These interventions should be disseminated across the territory in both rural and urban areas and should address the use of all psychoactive substances (as an example, early use of alcohol and nicotine is a risk factor for drug use and the development of substance use disorders). Strong, evidence-based prevention programs will contribute to reducing drug use. In addition, since prevention programs address common risk and resilience factors that contribute to a wide range of behavioral problems these interventions also lead to improvements in other behaviours (e.g. aggression, early pregnancies, driving while intoxicated) as well as mental health and educational outcomes.



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Substance use disorders tend to be more severe when initiation of drug, alcohol or nicotine use begins early—due to the impact of such substances on the developing brain. Unfortunately it is not uncommon for children under the age of twelve to be exposed to psychoactive substances. In conflict or post-conflict countries the high rate of early childhood trauma and PTSD, especially among refugees and children who are victims of human trafficking, creates a high risk for substance use and substance use disorders. While there are effective prevention programs targeting stages across the lifespan, it is recommended that highest priority be given to interventions that target high risk sub-populations within each community prior to initiation of drug use. In many countries this means implementing prevention programs in elementary schools. Effective prevention programs for this age group include among others:

- Support for families
- Screening and brief intervention in primary health care settings
- Life skills education programs
- Increased child protection
- Strategies to reduce school drop-out
- Implementing a ban on children labour
- Providing early treatment of PTSD
- Providing evidence-based treatment for substance use disorders among parents
- Health promotion
- Provision of afterschool educational and leisure activities such as sports

Research also shows that social supports and community cohesion contribute to resilience. Accordingly, engaging youth in community mobilization to break social exclusion is a powerful intervention for reducing the risk of substance use initiation and substance use disorders.

4. Implement evidence-based treatments for substance use disorders

Substance use disorders are treatable and people suffering with these disorders should receive treatment services fundamentally based on science as outlined in the “International Standards for the Treatment of Drug Use Disorders” (UNODC/WHO, 2016). As discussed above, substance use disorders are associated with significant and stable changes to circuits in the brain that mediate reward, motivation, stress, habit formation, and decision making. The persistence of these neurobiological changes, even after periods of abstinence, make these disorders chronic in nature with a tendency to recur. Effective treatment should reflect this by incorporating a chronic care model similar to those used for chronic physical health conditions such as diabetes or cardiovascular disease.

Recent research indicates that a multidisciplinary, integrated approach to treatment is most effective. Treatment should be integrated within the general health care system, supporting coordination of care across specialty behavioral health and general health care sectors. Treatment needs to be affordable, culturally and gender relevant. It is also important to promote outpatient treatment services, with community support, rationalizing the use of prolonged inpatient treatment options. This allows the interdisciplinary healthcare team to



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respond to the complexity of the disease and its impact on comorbid physical and mental health conditions. Treating comorbid substance use and mental health disorders reduces the relapse rate and improves the rehabilitation process. In addition, it improves adherence to treatment for physical health conditions and related outcomes, reducing healthcare costs.

Decades of research tell us that for treatment to be effective it should:

- Be delivered by a team of qualified healthcare providers.
- Be matched to patient severity – a brief intervention may be effective for an emerging problem, whereas a more severe condition may require longer term residential treatment.
- Include access to the full spectrum of evidence-based pharmacological and psychosocial treatments available. This should include integrated care and continuity of care support.
- Be made accessible with minimal rules for admission and retention.
- Incorporate services to address medical, psychological, social, vocational, legal, and long-term recovery support services based on the unique needs of the individual.
- Address the unique needs of the populations served (women, children, adolescents). For example, treatment services for women should be tailored to address child care needs as well as the high rates of co-occurring mental health disorders, trauma, and domestic violence among this population.

5. Collect and utilize scientific data and engage scientific experts in policy making

Reliable information on patterns of substance use and related problems should be collected and analysed to drive evidence based decision making. Standardized epidemiological and analytical indicators should be used in the planning and evaluation of drug policy interventions. The scientific community should be leveraged to:

- Provide evidence on the most effective interventions in prevention and treatment of substance use disorders
- Train professionals working on implementation of evidence-based prevention and treatment strategies.
- Implement data collection and monitoring, particularly as it relates to the evaluation of drug policies.
- Work with stakeholders to combat misinformation to fight prejudices and stigma against people affected by substance use disorders.
- Expand research on the economic, social and financial factors that contribute drug related problems in both production and consumption countries, including evaluation of innovative drug control policies.
- Evaluate the effectiveness of drug policies and interventions as they are implemented.

The scientific community also recommends Member States to establish national early warning system that collects data from emergency rooms, forensic toxicology labs, law enforcement reports, poison control centres, and health care professionals to monitor drug trends and identify emerging threats to public health and safety.



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6. Engage diverse stakeholders in coordinated policy making

Public health and safety issues related to substance use are complex and multi-factorial. Development of new policies should address this complexity and integrate input from diverse stakeholders including the public health, education, law enforcement, criminal justice, scientific, and healthcare systems and also include input from various countries with diverse cultures, needs and resources. These stakeholders should work together to plan, evaluate, and implement a balanced set of interventions that address both supply and demand, informed by science. A comprehensive set of evidence-based policies should be developed to address prevention, treatment, diverting criminal offenders into treatment, combatting drug production and trafficking, dismantling criminal organizations engaged in drug smuggling, providing alternative development and sustainable livelihood opportunities, and guaranteeing social protection to the most vulnerable.

7. Support drug-related research

One of the core provisions of the international treaties is to guarantee the availability of controlled drugs for scientific research purposes. More research is needed to understand:

- The impact of drugs on the brain and behavior – especially new synthetic drugs
- The impact of drug policies on drug use trends including the dynamic interplay between supply and demand
- The impact of different drug policies (including alternatives to criminalization) on public health, the economy, educational attainments of the population and criminal activities
- How to effectively tailor prevention and treatment strategies to the unique cultural context of Member States

In addition, controlled substances are by nature psychoactive and thus are important tools for neuroscience research and for the development of potential treatments for psychiatric and neurological disorders as well as other health conditions. Member States are encouraged to implement policies to minimize the regulatory burden associated with conducting research on scheduled drugs and to implement policies to facilitate research related to substance use, addiction, drug policy, and the therapeutic potential of controlled substances.

8. Ensure access to scheduled medications for therapeutic use

Many controlled drugs are considered indispensable for treating health conditions and alleviating human suffering. Under-treatment of pain is reported in more than 150 countries, accounting for about 80% of the world's population. It is estimated that nearly 5 million people suffering from moderate to severe cancer pain do not receive pain treatment. Additionally, over half a million women die every year during childbirth, though it is estimated that at least one-third of these deaths could have been prevented if medicines for post-



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partum haemorrhage, including controlled medicines, were available as well as access of scheduled medications for any other illness

While the use of many controlled drugs is necessary for health, their misuse and abuse can also produce negative health consequences as currently being experienced by some countries with an opioid prescription abuse and overdose epidemic. The international drug conventions are intended to ensure that scheduled medications are prescribed for legitimate medical purposes and safely reach patients through a controlled distribution chain designed to combat illicit manufacture, trade and distribution. Reaching a balance between provision and control is essential. However, controlling potential abuse and diversion should not interfere with the licit use of controlled medicines under appropriate medical supervision. Member States should remove financial, logistic, cultural, and legislative and other barriers that undermine access to controlled drugs for justified medical needs.

IV. Conclusion

Member States' goals for improving public health cannot be met without addressing substance use and substance use disorders. Moreover, individuals have a right to effective health promotion, prevention, treatment and recovery. A review of international science in this area has provided strong evidence for the effectiveness of:

- Preventing substance use initiation
- Identifying and reducing emerging cases of substance abuse before serious harm occurs
- Treating addiction, including serious cases

Member States will likely need to increase healthcare resources to achieve these results; but these investments should significantly increase the quality and reduce the costs of general healthcare. In contrast, criminal justice-based policies alone are not effective in achieving these goals and they are often a continuing financial burden to Member States.

The representatives of the Scientific Network are grateful to the United Nations, CND, UNODC, WHO, the Civil Society, and the Member States for their engagement of the scientific community. Our joint effort will help to bridge the gap between science, policy and practice in addressing drug use-related problems around the world.