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## EXECUTIVE SUMMARY POLICY IMPLICATIONS

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# PREFACE

Drugs cost lives.

In an age when the speed of information can often outstrip the speed of verification, the COVID-19 pandemic has taught us that it is crucial to cut through the noise and focus on facts, a lesson that we must heed in order to protect societies from the impact of drugs.

Drug use killed almost half a million people in 2019, while drug use disorders resulted in 18 million years of healthy life lost, mostly due to opioids. Serious and often lethal illnesses are more common among drug users, particularly those who inject drugs, many of whom are living with HIV and Hepatitis C.

The illicit drug trade also continues to hold back economic and social development, while disproportionately impacting the most vulnerable and marginalized, and it constitutes a fundamental threat to security and stability in some parts of the world.

Despite the proven dangers, drug use persists and, in some contexts, proliferates. Over the past year, around 275 million people have used drugs, up by 22 per cent from 2010. By 2030, demographic factors project the number of people using drugs to rise by 11 per cent around the world, and as much as 40 per cent in Africa alone.

There is often a substantial disconnect between real risks and public perception. In some parts of the world for example, cannabis products have almost quadrupled in potency, and yet the percentage of adolescents who perceive cannabis as harmful has dropped by as much as 40 per cent, despite the evidence linking regular use to health problems, particularly in young people, and despite the correlation between potency and harm.

New psychoactive substances also continue to be a challenge, as markets witness the introduction of new drugs that are unpredictable and poorly understood. Regulatory and legislative steps have been successful in stemming the tide globally, but in low-income countries the problem is on the rise; between 2015 and 2019, South and Central America recorded a fivefold rise in the amount of new synthetic psychoactive substances seized, while seizures in Africa increased from minor to substantial amounts. Strong increases were also reported in South and Southwest Asia as well as the Near and Middle East.

Meanwhile, the COVID-19 crisis has pushed more than 100 million people into extreme poverty, and has greatly exacerbated

unemployment and inequalities, as the world lost 114 million jobs in 2020. In doing, so it has created conditions that leave more people susceptible to drug use and to engaging in illicit crop cultivation.

Furthermore, disparities in access to essential controlled medicines around the world continue to deny relief to patients in severe pain. In 2019, four standard doses of controlled pain medication were available every day for every one million inhabitants in West and Central Africa, in comparison to 32,000 doses in North America.

In parallel, drug traffickers have quickly recovered from the initial setback caused by lockdown restrictions and are operating at pre-pandemic levels once again. Access to drugs has also become simpler than ever with online sales, and major drug markets on the dark web are now worth some \$315 million annually. Contactless drug transactions, such as through the mail, are also on the rise, a trend possibly accelerated by the pandemic.

Communicating facts about drugs and promoting science-based interventions is an absolute necessity if we are to reduce demand and supply of drugs, while also facilitating access to controlled medicines for those in need. It is also the surest path to eliminating stigmatization and discrimination and providing adequate treatment, as seven in eight people who suffer from drug use disorders remain without appropriate care.

At the UN Office on Drugs and Crime we are dedicated to pursuing and promoting fact-driven, human rights-based approaches to drug control and treatment.

I am proud to present to you this World Drug Report, which embodies our commitment to raising awareness and combating misinformation.

It is my hope that this report will inform policymakers, practitioners, and the general public on the facts of the world drug problem, and provide them with a powerful tool to share evidence and information, and in doing so help save and preserve lives.



Ghada Waly, Executive Director  
United Nations Office on Drugs and Crime

# WORLD DRUG REPORT 2021

BOOKLET



EXECUTIVE SUMMARY  
POLICY IMPLICATIONS

BOOKLET



GLOBAL OVERVIEW OF DRUG DEMAND  
AND DRUG SUPPLY

BOOKLET



DRUG MARKET TRENDS:  
CANNABIS, OPIOIDS

BOOKLET



DRUG MARKET TRENDS:  
COCAINE, AMPHETAMINE-TYPE STIMULANTS

BOOKLET



COVID-19 AND DRUGS:  
IMPACT AND OUTLOOK

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# EXPLANATORY NOTES

The designations employed and the presentation of the material in the *World Drug Report* do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries.

Countries and areas are referred to by the names that were in official use at the time the relevant data were collected.

Since there is some scientific and legal ambiguity about the distinctions between “drug use”, “drug misuse” and “drug abuse”, the neutral term “drug use” is used in the *World Drug Report*. The term “misuse” is used only to denote the non-medical use of prescription drugs.

All uses of the word “drug” and the term “drug use” in the *World Drug Report* refer to substances controlled under the international drug control conventions, and their non-medical use.

All analysis contained in the *World Drug Report* is based on the official data submitted by Member States to the UNODC through the annual report questionnaire unless indicated otherwise.

The data on population used in the *World Drug Report* are taken from: *World Population Prospects: The 2019 Revision* (United Nations, Department of Economic and Social Affairs, Population Division).

References to dollars (\$) are to United States dollars, unless otherwise stated.

References to tons are to metric tons, unless otherwise stated.

The following abbreviations have been used in the present booklet:

- ATS amphetamine-type stimulants
- CBD cannabidiol
- COVID-19 coronavirus disease
- Δ9-THC delta-9-tetrahydrocannabinol
- Eurojust European Union Agency for Criminal Justice Cooperation
- Europol European Union Agency for Law Enforcement Cooperation
- INCB International Narcotics Control Board
- MDMA 3,4-methylenedioxymethamphetamine
- NPS new psychoactive substances
- RMIT Royal Melbourne Institute of Technology
- UNAIDS Joint United Nations Programme on HIV/AIDS
- UNODC United Nations Office on Drugs and Crime
- WHO World Health Organization



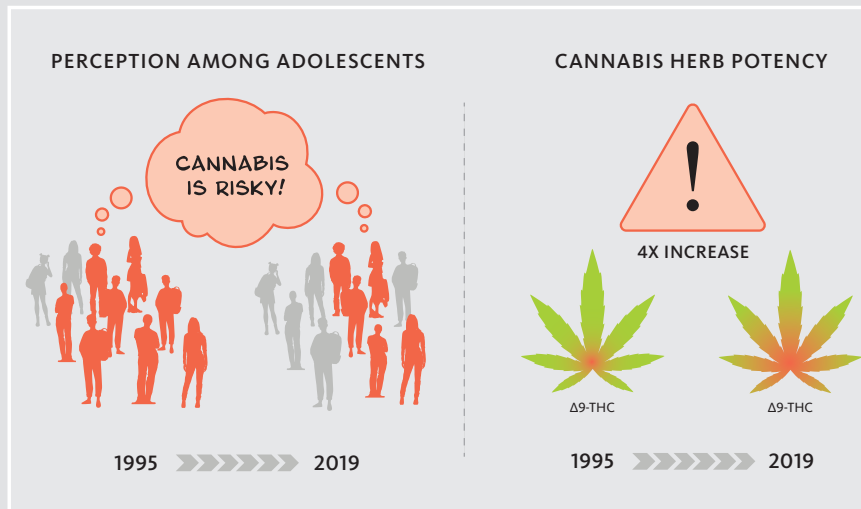
# SPECIAL POINTS OF INTEREST

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# SPECIAL POINTS OF INTEREST

## FINDINGS

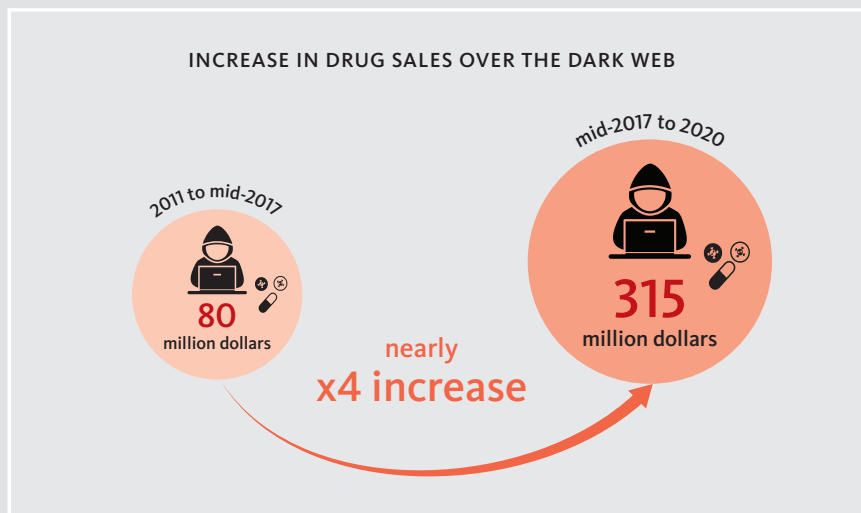
Cannabis is more potent but fewer young people see it as harmful



## POSSIBLE RESPONSES

- » Combat misinformation about the potential impact of the increased strength of cannabis.
- » Use fact-based information to raise awareness of the potential harm from non-medical use of cannabis.
- » Prioritise public health over private business through a comprehensive ban on advertising.
- » Increase investment in research both into the harm cannabis use poses to health and the possible medical uses of the drug.
- » Monitor the cannabis markets and the perception of risks associated with cannabis use.

Rising web-based sales could transform global drug use patterns

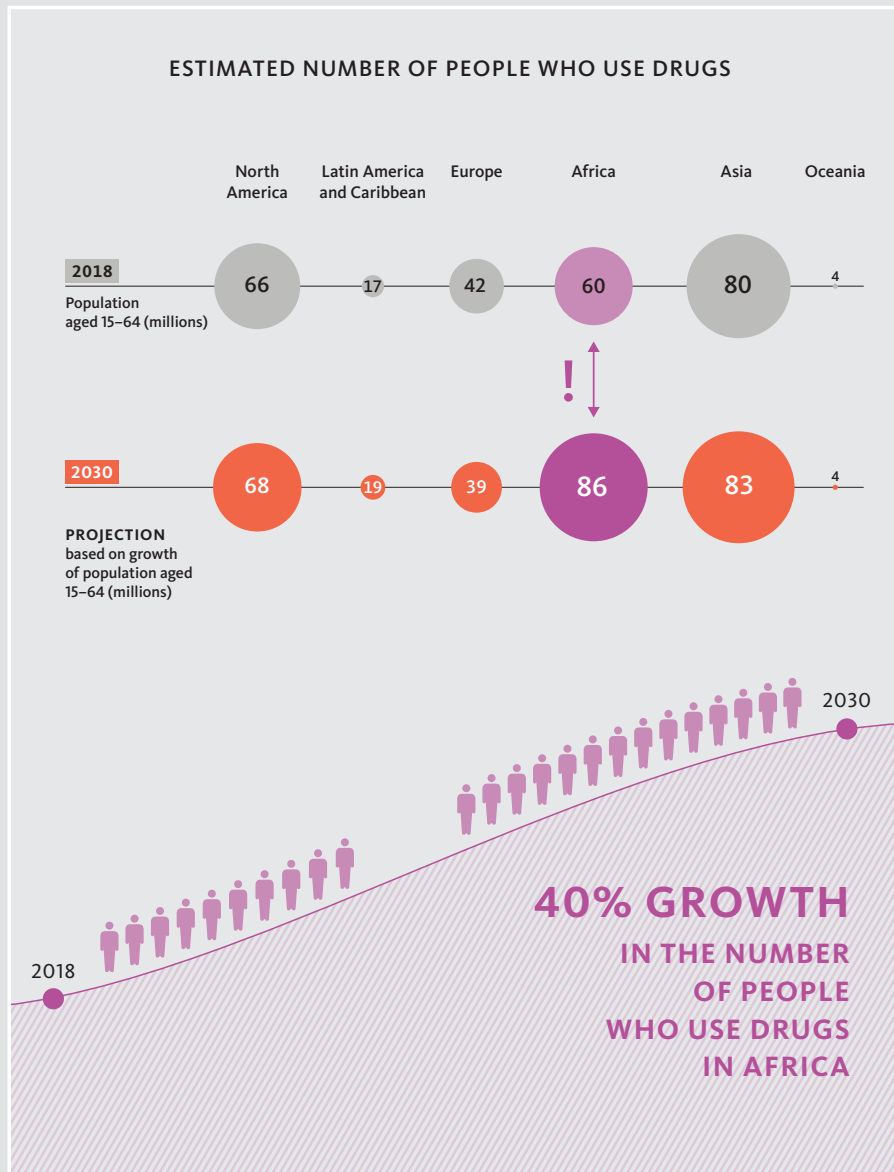


- » Improve government response to drug trafficking on the internet by forging public/private partnerships with internet service providers, tech companies, shipping and mailing companies.
- » Control the drug supply chain on the Internet by removing drug adverts and listings and sharing information with law enforcement.
- » Regulate cryptocurrency markets and monitor electronic payments to detect suspicious transactions and illicit financial flows from drug trafficking.
- » Enhance expert access to the dark web in order to take down online markets and platforms.

# SPECIAL POINTS OF INTEREST

## FINDINGS

Number of drug users in Africa is projected to rise by 40 per cent by 2030



## POSSIBLE RESPONSES

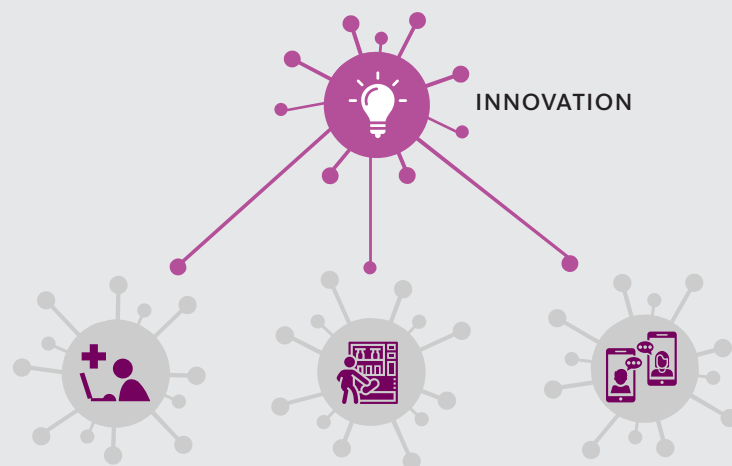
- » Implement an integrated, people-centred and human-rights based approach to empowering African societies to develop sustainable solutions to drug use.
- » Help African States define and apply innovative and cost-effective assessment systems for regular monitoring of the drug situation on the continent.
- » Cultivate strong partnerships between African Member States and the United Nations system to stem the expected increase in the number of people who use drugs and the possible negative impact on health and security.

# SPECIAL POINTS OF INTEREST

## IMPACT OF COVID-19

### FINDINGS

COVID-19 has triggered innovation in drug prevention and treatment services



#### Technology

Audio-only assessments and prescriptions

Remote consultation

Service hotlines

Mobile telephone-enabled outreach programmes

Internet-based services and training

#### Contactless services

Mail services for needles and syringes and naloxone

Mobile outreach programmes

Vending machines for sterile needle and syringes

Vending machines for drug treatment medications

#### Delivery systems

Mobile outreach programmes

Administration of treatment medication without face-to-face meetings

Multi-day and multi-week take-home doses of treatment medication

Methamphetamine agonist treatment

### POSSIBLE RESPONSES

- » Maintain COVID-19 adaptations to the delivery of drug-related services in order to increase accessibility and coverage of services.
- » Continuously update scientific standards to keep abreast of the acceleration of Internet-based services.
- » Prioritize people who use drugs and with drug use disorders for COVID-19 screening and vaccination because of their health vulnerability.

# SPECIAL POINTS OF INTEREST

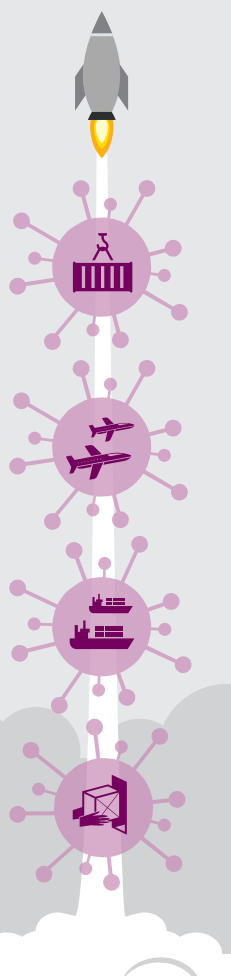
## IMPACT OF COVID-19

### FINDINGS

Drug markets quickly recovered after the onset of the pandemic, but some trafficking dynamics have been accelerated during Covid-19

#### COVID-19 HAS ACCELERATED SOME DRUG TRAFFICKING PATTERNS

- ↗ Larger shipment size
- ↗ Increased use of private aircraft
- ↗ Increased use of waterway routes
- ↗ Contactless methods to deliver drugs to end-consumers



### POSSIBLE RESPONSES

- » Foster international cooperation for fighting the enduring problem of drug trafficking.
- » Exchange and transfer law enforcement intelligence and effective interdiction approaches and best practices.
- » Develop international accountability mechanisms and practices for shipping and railway companies, postal services, and air cargo.
- » Implement real-time data monitoring systems for promptly detecting and addressing drug market changes.

# SPECIAL POINTS OF INTEREST

## IMPACT OF COVID-19

### FINDINGS

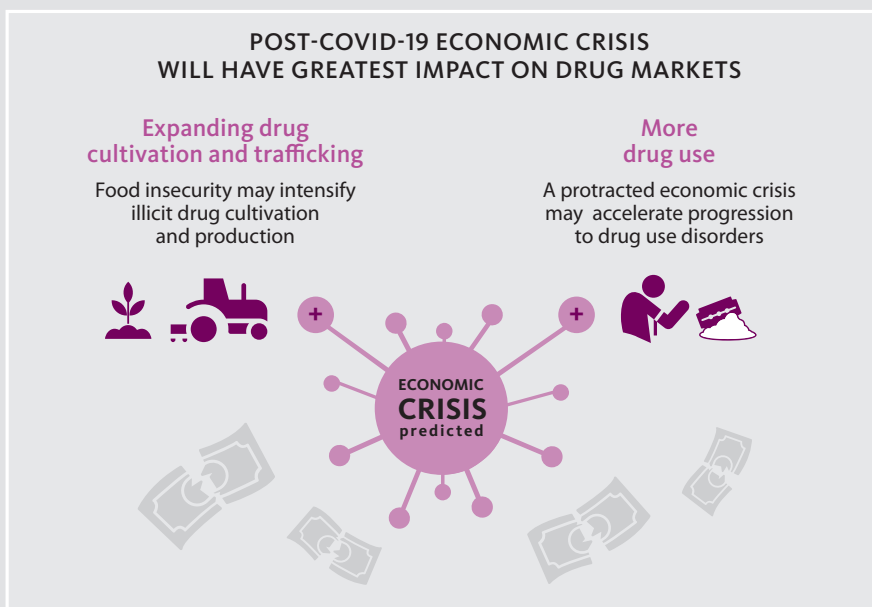
Non-medical use of cannabis and sedatives has increased globally during the pandemic



### POSSIBLE RESPONSES

- » Allocate sufficient funding in national post-COVID-19 budgets for drug prevention and treatment to prevent the acceleration of increasing drug use patterns.
- » Prioritize scientific evidence-based prevention of drug use in post-pandemic investment.
- » Pre-empt further increases in the number of people who use cannabis, and the harm arising from its increasing non-medical use, through cost-effective measures such as prevention.

COVID-19 fallout is likely to be felt in drug markets for years to come



- » Support parents and young people in vulnerable circumstances to face the stresses of the pandemic without resorting to negative coping mechanisms.
- » Alleviate the negative consequences for vulnerable and marginalized population groups through post-pandemic recovery plans that include housing, food supply, economic assistance and health insurance.
- » Increase the effectiveness of alternative development interventions to improve the conditions of rural households.

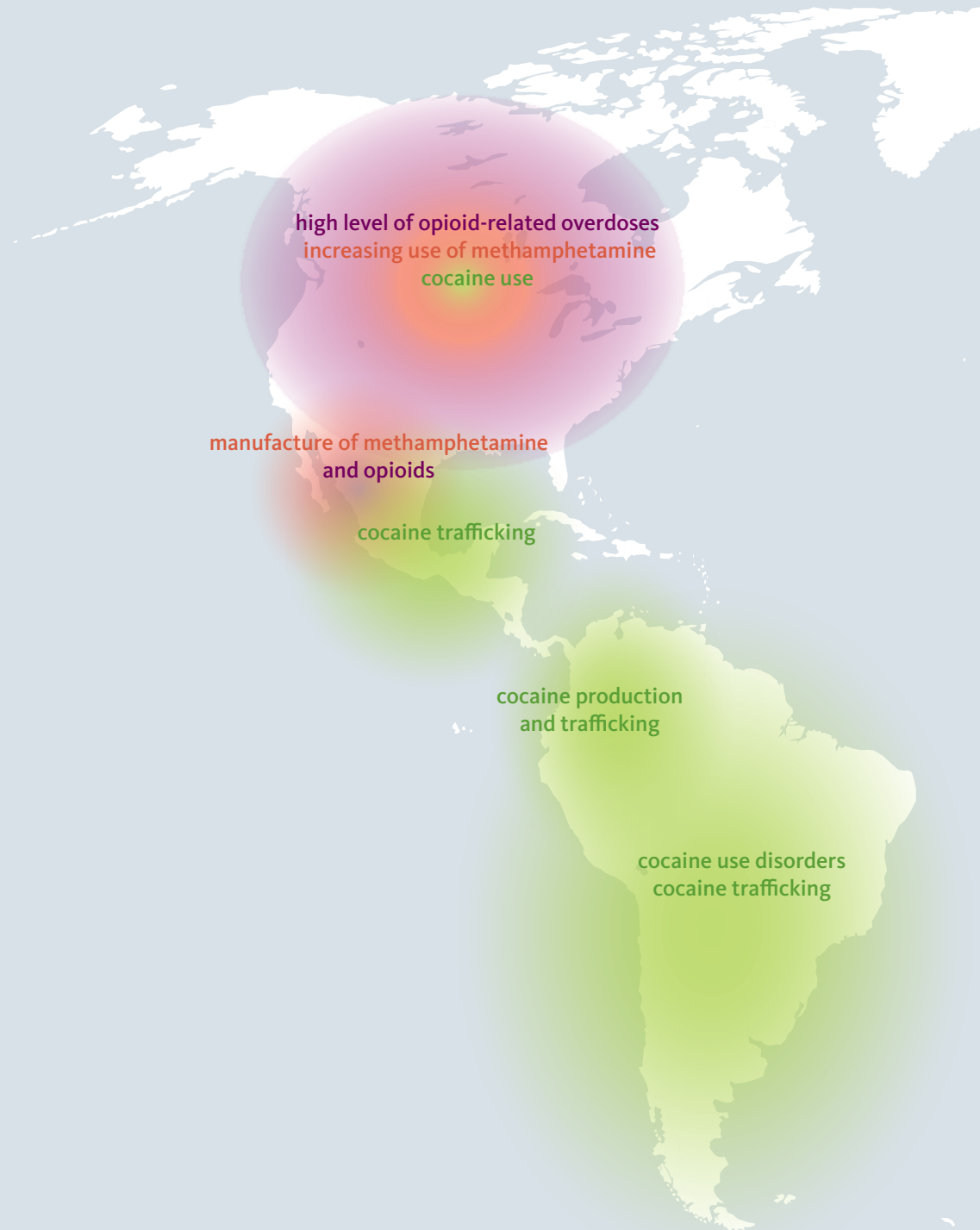
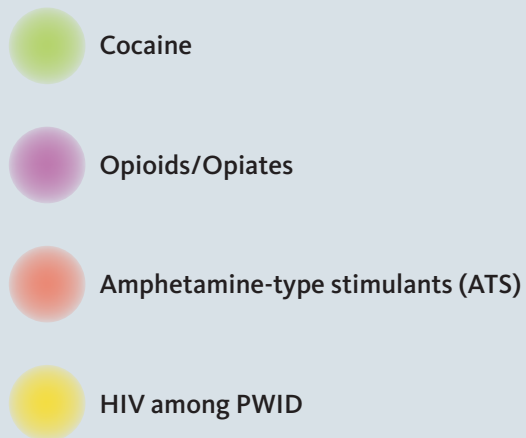
**THE WORLD DRUG PROBLEM**  
**COMMON CHALLENGE**  
**LOCAL DYNAMICS**

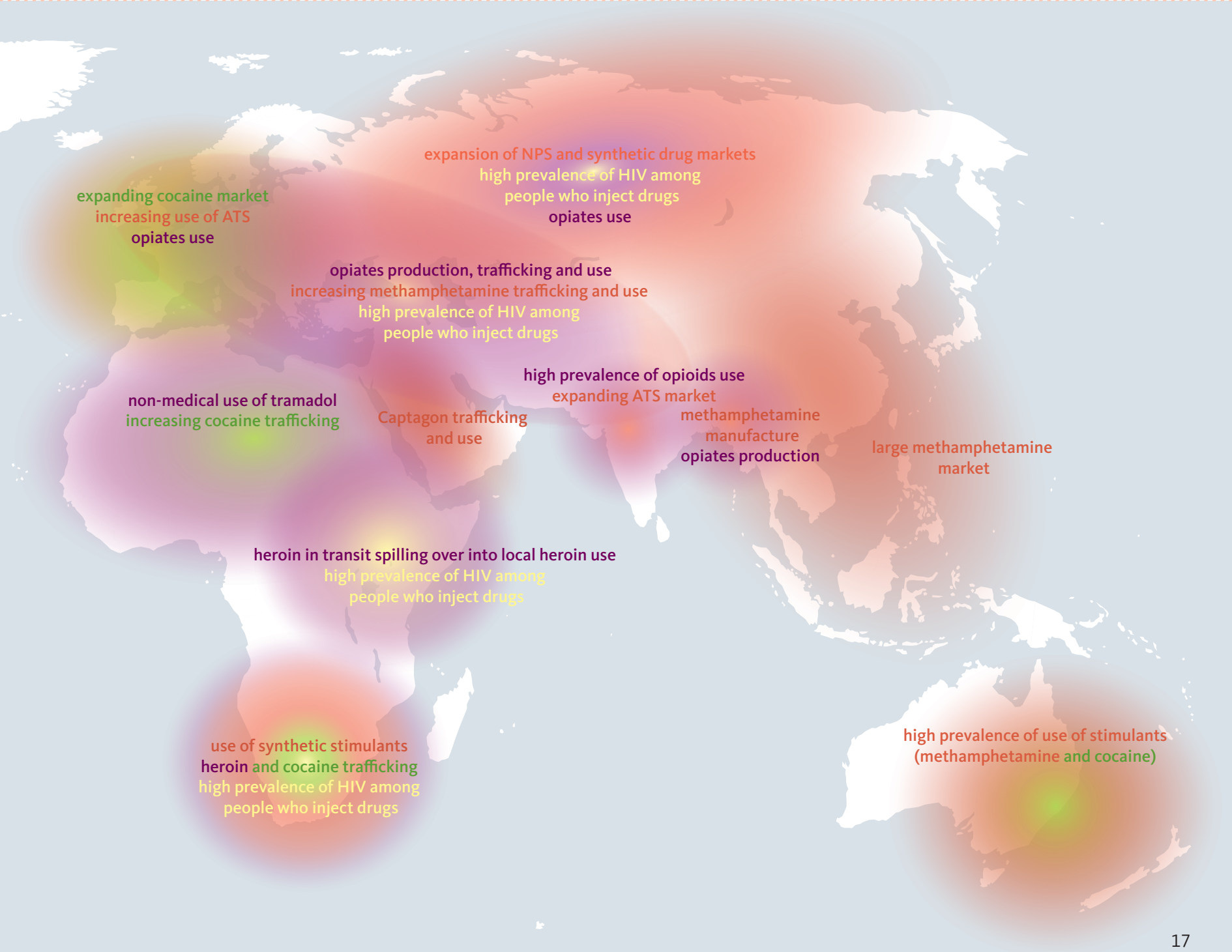
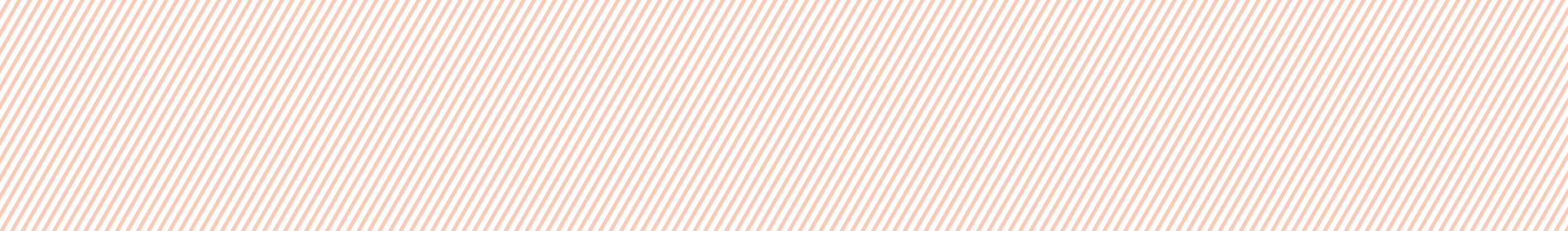


# THE WORLD DRUG PROBLEM

## COMMON CHALLENGE, LOCAL DYNAMICS

While cannabis trafficking and use affect all regions worldwide, other drug issues pose additional threats in different geographical locations.





# DRUG-BY-DRUG DEVELOPMENTS IN BRIEF

	Demand	Supply	Key issues
CANNABIS	<ul style="list-style-type: none"> <li>&gt; Roughly 200 million people used cannabis in 2019 representing 4 per cent of the global population.</li> <li>&gt; The figure is highest in North America (14.5 per cent) and lowest in Asia (2 per cent).</li> <li>&gt; The number of cannabis users has increased by nearly 18 per cent over the past decade</li> </ul>	<ul style="list-style-type: none"> <li>&gt; No data are available on the global illicit cultivation of cannabis but qualitative information suggests an overall expansion between 2010-2019.</li> <li>&gt; Between 2009–2019, quantities seized fell by 35 per cent, largely because of dramatic declines in North America partly linked to legalization of non-medical cannabis in some jurisdictions.</li> <li>&gt; Excluding North American data, global seizures were 36 per cent higher in 2019 than in 2009.</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Diverse cannabis products have becoming more potent yet the number of adolescents regarding the drug as harmful is declining rapidly, a trend that risks increasing the negative impact of cannabis on younger generations.</li> <li>&gt; An increase in cannabis use has been observed in many countries during the pandemic.</li> </ul>
COCAINE	<ul style="list-style-type: none"> <li>&gt; An estimated 20 million people used cocaine in 2019, corresponding to 0.4 per cent of the global population.</li> <li>&gt; The prevalence rate of use was the highest in Oceania (2.7 per cent), mainly reflecting the situation in the sub-region Australia and New Zealand, and the lowest in Asia (0.07 per cent).</li> <li>&gt; Global prevalence rates have remained stable over the past decade, while the number of people using the drug increased by 22 per cent largely owing to population growth.</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Global manufacture doubled in output between 2014 and 2019 to reach an estimated 1,784 tons, the highest level ever recorded.</li> <li>&gt; The quantity seized more than doubled in the same period, with the Americas accounting for close to 83 per cent of global quantity intercepted in 2019.</li> <li>&gt; Following an upward trend over the period 2013–2017, illicit coca cultivation stabilised in 2018 and then declined for the first time in years by 5 per cent in 2019.</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Cocaine manufacture was disrupted during the initial stages of the pandemic but returned to its typical level shortly afterwards.</li> <li>&gt; The cocaine trafficking route between South America and Europe is evolving, with greater competition between traffickers pushing up the quality and reducing prices, which is likely to continue to widen the potential harm caused by the drug in Europe.</li> </ul>
OPIOIDS	<ul style="list-style-type: none"> <li>&gt; Around 62 million people used opioids for non-medical purposes in 2019, corresponding to 1.2 per cent of the global population.</li> <li>&gt; North America (3.6 per cent) has the highest prevalence, Europe the lowest (0.8 per cent).</li> <li>&gt; The number of users worldwide has nearly doubled over the past decade, with the increase in the last few years mainly driven by new estimates in Asia and Africa.</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Following a decline in the area under illicit cultivation of opium poppy from a peak in 2017, it rebounded in 2020, rising by 24 per cent compared with the previous year, to reach 295,000 ha.</li> <li>&gt; Global opium production has stabilised since 2018, amounting to 7,410 tons in 2020.</li> <li>&gt; Both opium production and opiate seized have shown an upward trend over the past two decades.</li> <li>&gt; Most opiate seizures are made in, or close to, the main opium production areas in Asia, which accounted for 76 per cent of all opiates seized worldwide in 2019.</li> <li>&gt; Heroin trafficking was reported in 99 countries in 2019, a much higher number than those reporting trafficking in opium or morphine.</li> <li>&gt; Quantities of heroin seized in Europe hit a record high in 2019, tripling since 2016, and accounting for 27 per cent of the global total.</li> <li>&gt; Seizures of “pharmaceutical opioids” hit peaks in 2014 and in 2019, almost tripling since the previous year to 228 tons.</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Roughly 50,000 people died from opioid overdoses in the United States in 2019, more than double the 2010 figure. Fentanyl and its analogues now are involved in most of the deaths.</li> <li>&gt; North America has seen a spike in opioid overdose deaths since the onset of the pandemic.</li> <li>&gt; As the result of the economic downturn triggered by the pandemic, fragile communities in areas of illicit cultivation of drugs are now increasingly vulnerable, especially in Afghanistan, where the appeal of illicit crop cultivation of opium poppy is likely to rise.</li> <li>&gt; Access to pharmaceutical opioids in low- and middle-income countries is a tiny fraction of the availability in high-income countries.</li> </ul>

	Demand	Supply	Key issues
AMPHETAMINE-TYPE STIMULANTS (ATS)	<ul style="list-style-type: none"> <li>➤ An estimated 27 million people used amphetamine type stimulants in 2019, corresponding to 0.5 per cent of the global population.</li> <li>➤ The figure was highest in North America (2.3 per cent) and lowest in Africa (0.4 per cent), though the data from Africa was patchy.</li> <li>➤ Nearly 20 million people globally are estimated to have used “ecstasy” in the past year.</li> <li>➤ Use of amphetamines varies by region. Non-medical use of pharmaceutical stimulants and methamphetamine is the most prevalent in North America, methamphetamine in East and South East Asia and amphetamine predominates in Western and Central Europe and in the Near and Middle East.</li> </ul>	<ul style="list-style-type: none"> <li>➤ More than 95 per cent of ATS laboratories uncovered between 2015 and 2019 were used to manufacture methamphetamine, and the drug accounted for 72 per cent of the total quantity of ATS seized in the same period.</li> <li>➤ The quantities of ATS seized rose by 64 per cent between 2018 and 2019 to record levels, capping an almost sixfold increase in the past decade while methamphetamine showed a tenfold increase over the same period.</li> <li>➤ Ecstasy and amphetamine seizures doubled between 2015 and 2019.</li> <li>➤ Roughly 85 per cent of amphetamine laboratories dismantled worldwide between 2015 and 2019 were in Europe, along with more than half of ecstasy laboratories.</li> <li>➤ Most methamphetamine was seized in North America (49 per cent) and East and South-East Asia (43 per cent); most amphetamine was seized in the Near and Middle East and South West Asia (49 per cent) and in Europe (26 per cent); and most ecstasy was seized in Europe (43 per cent) and North America (21 per cent) over the period 2015–2019.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Seizures of precursor chemicals under international control used in the manufacture of methamphetamine have strongly declined in the past decade, as manufacturers continue to change the chemicals they use to bypass interdiction.</li> <li>➤ Injecting and use of stimulants is driving HIV outbreaks among people who use drugs in some sub-regions.</li> </ul>
NEW PSYCHOACTIVE SUBSTANCES (NPS)	<ul style="list-style-type: none"> <li>➤ There are some declines in the use of NPS in North America and in Europe, but NPS use continues among some marginalized population groups.</li> <li>➤ The use of NPS appears to be rapidly emerging in some low- and middle-income countries.</li> <li>➤ The harms from NPS use, though may vary according to the type of substance, are observed/visible more at the individual rather than at the population level.</li> </ul>	<ul style="list-style-type: none"> <li>➤ The number of NPS found at global level has been stabilizing in recent years at slightly more than 500 substances (541 in 2019) while the actual number of new psychoactive substances identified for the first time at global level declined from 213 to 71 between 2013 and 2019</li> <li>➤ The number of NPS with opioid effects (often fentanyl analogues) have been growing strongly over the past decade and continued growing in 2018 and in 2019, though at a lesser pace than before.</li> <li>➤ Quantities of synthetic NPS seized have declined markedly, including of synthetic cannabinoids.</li> </ul>	<ul style="list-style-type: none"> <li>➤ National and international drug control systems have succeeded in containing the spread of NPS in high-income countries where different types of legislation have been applied.</li> <li>➤ NPS markets are emerging in countries where control systems may be weaker.</li> <li>➤ The limited capacity of forensic, law enforcement and health experts to identify different NPS and their use makes it challenging for countries to adequately address the threat of NPS.</li> </ul>



# FINDINGS AND CONCLUSIONS & POLICY IMPLICATIONS



# CANNABIS IS MORE POTENT BUT FEWER YOUNG PEOPLE SEE IT AS HARMFUL



## FINDINGS AND CONCLUSIONS

Cannabis products have almost quadrupled in strength in the United States of America and have doubled in Europe in the last two decades. The percentage of  $\Delta 9$ -THC, the main psychoactive component in cannabis, rose from about 4 per cent to 16 per cent in the United States over the period 1995–2019, and from about 6 per cent to 11 per cent in Europe over the period 2002–2019.

$\Delta 9$ -THC is responsible for the development of mental health disorders, in long-term, heavy users of cannabis yet the percentage of adolescents perceiving the regular use of cannabis as harmful has decreased by as much as 40 per cent during the same period. Surveys of schoolchildren and young adults in the United States and Europe bear out this finding. Limited evidence from other parts of the world suggests a similar pattern.

Such a mismatch between the perception and the reality of the risk posed by more potent cannabis could increase the negative impact of the drug on young generations. Scientific evidence has demonstrated the harm to health caused by regular use of cannabis, particularly in young people. Evidence from surveys suggests a link between a low perception of risk and higher rates of usage. This is the case not only in Europe and the United States, but also in other parts of the world.

Aggressive marketing of cannabis products with a high  $\Delta 9$ -THC content by private firms and promotion through social-media channels can make the problem worse. Products now on sale include cannabis flower, pre-rolled joints, vaporizers, concentrates and edibles. The potency of those products varies and can be unpredictable – some jurisdictions where cannabis use is legalized set no limit on THC content – and may be a public health concern.



## POLICY IMPLICATIONS

**Combating misinformation** on the impact of the use of cannabis products is crucial to enabling individuals, particularly young people, to make decisions based on an accurate perception of the risks.

**Awareness-raising and communication** efforts that disseminate scientific information without stigmatizing people who use drugs or people with drug use disorders can help to avoid misperceptions. Messages must be fact-based and a clear distinction must be made among the effective medical uses of cannabis products for some ailments, the use of cannabis products such as CBD in the so-called wellness industry and the consequences of the non-medical use of cannabis.

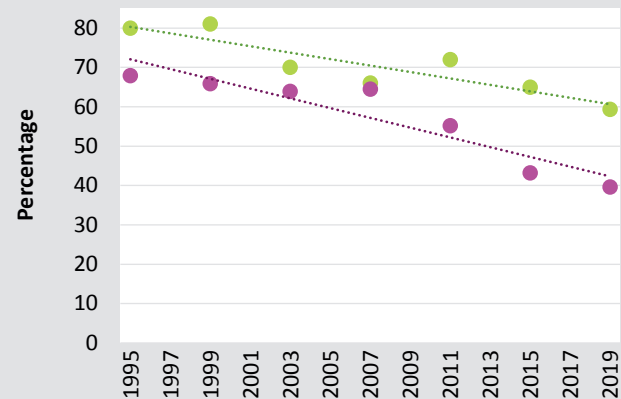
A comprehensive **ban on advertising**, promoting and sponsoring cannabis would ensure that public health interests prevail over business interests. Such a ban would need to apply across all jurisdictions. The measures could work in a way similar to the provisions of the WHO Framework Convention on Tobacco Control.

More investment is needed for research into the harm that the non-medical use of cannabis poses to health and to better define the range of health conditions for which cannabis products may be an effective treatment.

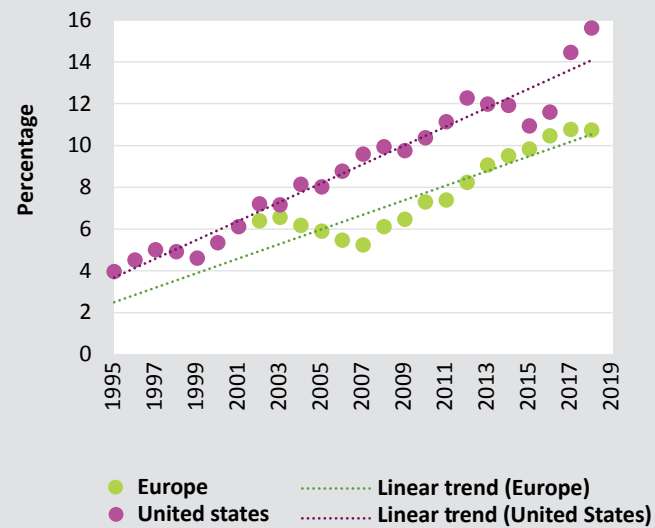
**Global monitoring** of the impact of laws that allow for the medical and non-medical use of cannabis is key. This will need to go beyond the trends in cannabis use in a single country to assessing the frequency and patterns of cannabis consumption, health and socioeconomic consequences and market developments in both the licit and the illicit sectors around the world. One important aspect to evaluate is the impact of cannabis legalization on the perception of risks associated with cannabis use, particularly among young people, beyond the countries where this legalization is taking place; it would also be critical to assess the risk perceived by young people in low-income countries.



### PERCEPTION AMONG ADOLESCENTS OF RISK/HARM OF SMOKING CANNABIS REGULARLY



### CANNABIS POTENCY ( $\Delta^9$ -THC CONTENT) IN CANNABIS HERB



# RIISING SALES OVER THE INTERNET COULD TRANSFORM GLOBAL PATTERNS OF DRUG DISTRIBUTION AND USE



## FINDINGS AND CONCLUSIONS

Drug markets on the dark web only emerged a decade or so ago, but the main ones are now worth at least \$315 million in annual sales. Although this is a tiny fraction of overall drug sales, the trend is upward, with a fourfold increase in annual sales between the beginning of the 2010s (2011–mid-2017) and more recent years (mid-2017–2020). The expansion of online drug markets to social media and popular e-commerce platforms further suggests that their accessibility is widening.

While cannabis dominates darknet sales, marketing on the so-called clear web often involves NPS and substances used in the manufacture of synthetic drugs, including precursor chemicals.

Vendors play a cat-and-mouse game with law enforcement by marketing their products as “research chemicals” or advertising “custom synthesis”, whereby clients can request substances not included on a list of available products. While this is a legitimate practice in the pharmaceutical industry, it may be misused by traffickers to distribute controlled substances.

Rapid technological innovation, combined with the agility and adaptability of those using new platforms to sell drugs and other substances, may usher in a globalized market where more drugs become available in more locations, especially since traffickers can quickly adapt their distribution networks. This in turn will trigger accelerated changes in patterns of drug use.



## POLICY IMPLICATIONS

Increasing the capacity of law enforcement agencies to address drug trafficking over the darknet remains a priority, but the increased use of the clear web requires innovative solutions and international cooperation.

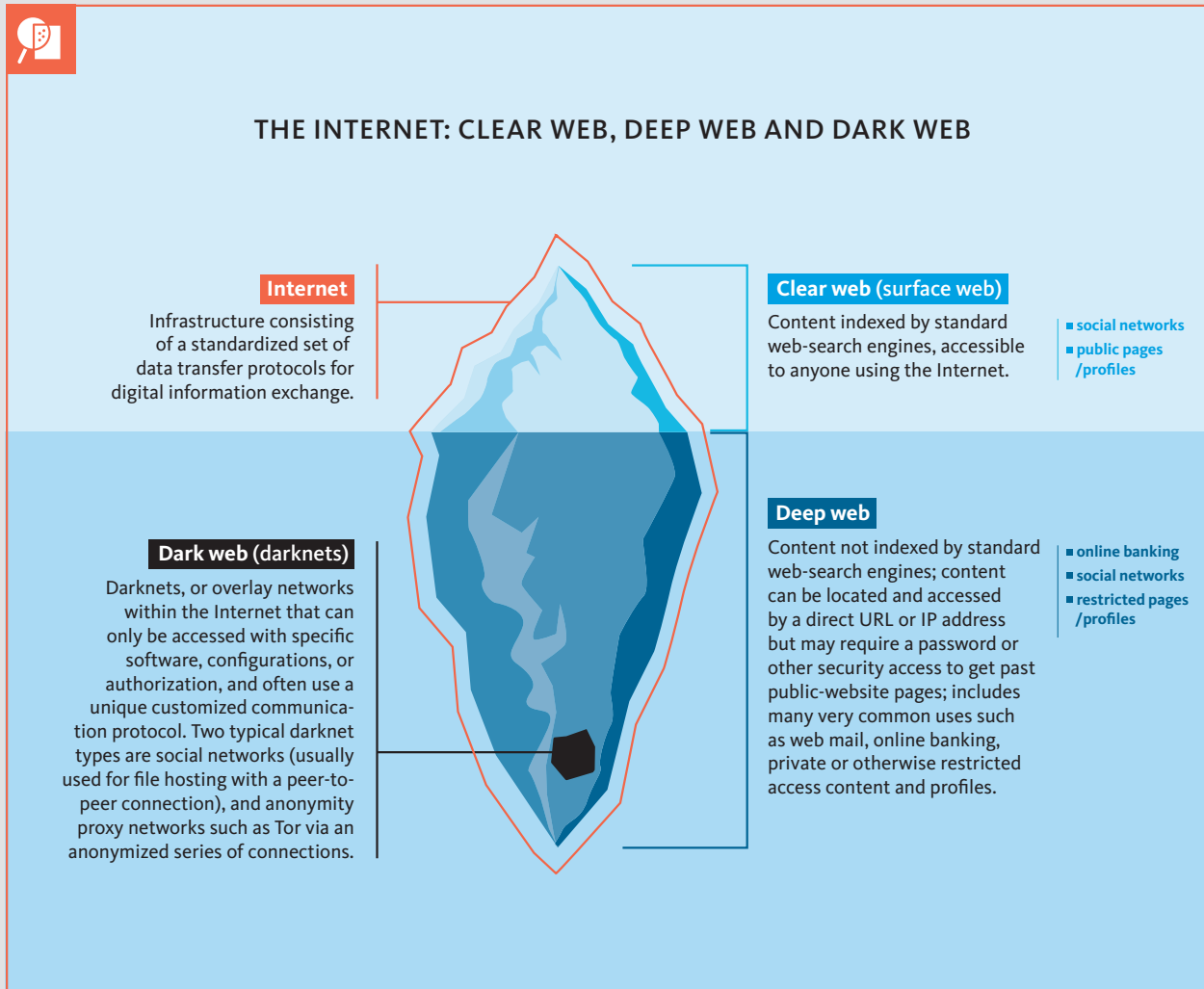
**Public-private partnerships** have become crucial in addressing drug trafficking on the Internet. The drug supply chain now involves Internet service providers, technology companies and shipping and mailing companies. Government responses can be effective only if they involve those actors.

Joint responses by Governments and the private sector **can involve controlling and removing advertisements and listings** of illegal drugs on the Internet. Such initiatives should facilitate the sharing of proportionate, lawful and necessary information with law enforcement agencies, while respecting the highest ethical standards to ensure freedom of information and respect for privacy.

Targeting the illicit profits and financial flows that govern drug trafficking requires strong regulation and supervision of cryptocurrency markets and monitoring of electronic payments to detect and report suspicious transactions. Such approaches are effective only if regulations are uniform and compliance is enforced in all jurisdictions, with Governments setting a “level playing field”. This will be even more important in the future as the payment for drugs sold online is likely to shift from traceable cryptocurrencies to “privacy coins”, which provide a higher degree of anonymity.

The globalized drug market that is likely to develop on the Internet will require a global response, with innovative, human rights-compliant tools for law enforcement agencies to investigate the borderless virtual space. To respond to this threat, all States will need to be equipped with **expert access to the dark web** and the investigative capability to proactively take down online markets and platforms.

The transnational nature of online drug markets requires a law enforcement capacity that is agile and can have an impact **across borders**, with joint investigation teams from different countries. Addressing the needs of prosecutors and judges to obtain and authorize requests for data beyond national borders is key in this context.



# NUMBER OF DRUG USERS IN AFRICA PROJECTED TO RISE BY 40 PER CENT BY 2030



## FINDINGS AND CONCLUSIONS

The number of drug users in Africa is projected to rise in the next decade by as much as 40 per cent, simply because of demographic changes. Although a rise in people who use drugs is predicted across the world, it is likely to be particularly pronounced in Africa because the population is younger, and drug use is higher among young people than among older people. Moreover, the population of Africa is projected to grow more quickly than that of other regions.

Globally, the number of people using drugs is projected to rise by 11 per cent by 2030 because of demographic changes alone. Low-income countries account for the lion's share of this rise.

These transformations will bring challenges: an increase in the number of people who use drugs means more people with drug use disorders and therefore more need for the services that cater to them. More demand for drugs could lead to organized criminal groups increasing their activities, presenting a serious challenge for law enforcement agencies in parts of the world where the capacity to address such problems is often weaker. Existing challenges affecting Africa, such as the use of cannabis, the non-medical use of tramadol and the increased use of the continent as a transit area for cocaine and heroin trafficking, are likely to be exacerbated by an increased number of people who use drugs.

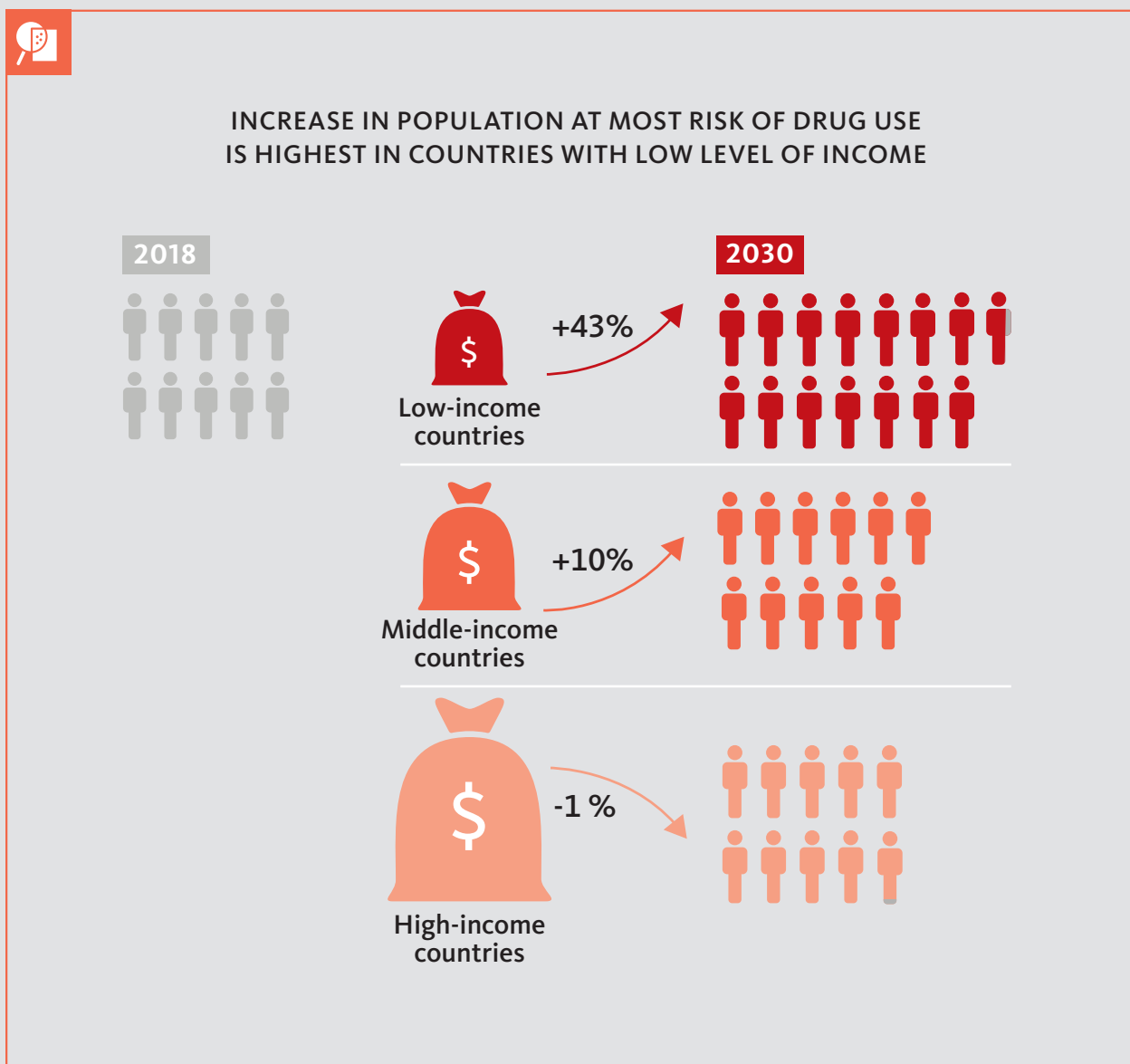


## POLICY IMPLICATIONS

The potential surge in the number of people who use drugs in Africa is still avoidable. An effective continental response will involve **massive investment** in health and an expansion of evidence-based prevention programmes, particularly those focusing on family skills, life skills in school and youth participation at the community level. High-quality pharmacological and psychosocial services are also needed. People who use drugs need a plan for social reintegration that includes provision for further education, vocational skills development and employment support. Evidence-based services such as family therapy should be targeted at young people with drug use disorders. Equally, provisions need to be made for comprehensive HIV prevention, treatment and care among people who use drugs in prisons and closed settings.

The **UNODC Strategic Vision for Africa 2030** can support this continental response with an integrated, people-centred and human rights-based approach, empowering African societies as they develop sustainable solutions to drug-related challenges. The strategy focuses on prevention to address the drivers of threats related to drugs and transnational organized crime, supporting and strengthening societies, institutions and at-risk and vulnerable groups. It supports specific and effective responses to drug trafficking and drug use, as well as drug-related HIV prevention, treatment and care.

The projected increase in drug use and the continued dynamism of drug markets demand **regular monitoring** of the drug situation in Africa. Data on drug use and its harm and on supply and market indicators remain limited. States need a major continental mobilization to help them define and apply innovative and cost-effective monitoring and assessment systems. This will allow them to produce and use data on drug demand and supply and ensure that national authorities have the information they need to detect emerging trends while they can still be prevented. Strong **partnerships** will be key in supporting Africa to stop the expected increase in the number of people who use drugs and the possible negative impact on health and security. African Member States can work closely with United Nations partners, leveraging the efficiency provided by the United Nations development system reform, to deliver more through joint United Nations programmes.



# IMPACT OF COVID-19

## COVID-19 HAS TRIGGERED INNOVATION IN DRUG USE PREVENTION AND TREATMENT SERVICES



### FINDINGS AND CONCLUSIONS

Since the COVID-19 pandemic swept the world, many tasks once conducted face to face have been carried out using Internet-based technology, telephones or the postal system. In some countries, rapid innovation has transformed what health professionals treating people who use drugs can offer.

Despite some disruption to drug treatment services in the first months of the pandemic, many countries were quick to introduce telemedicine to comply with stay-at-home measures and physical-distancing rules. This enabled health-care workers to offer counselling and initial assessments over the telephone. However, in many instances, the closure of non-essential health services and movement restrictions brought about the sudden and uncoordinated discontinuation of services for people with drug use disorders during the initial lockdown periods.

In addition, prescribing requirements have been simplified and patients have been given more flexibility with opioid agonist medication and some people suffering from drug use disorders have been allowed to take home methadone doses. Other practices include using vending machines to dispense opioid agonist medication and postal services to distribute sterile needles and syringes. Many of these novel approaches will need to be evaluated to better assess their effectiveness.



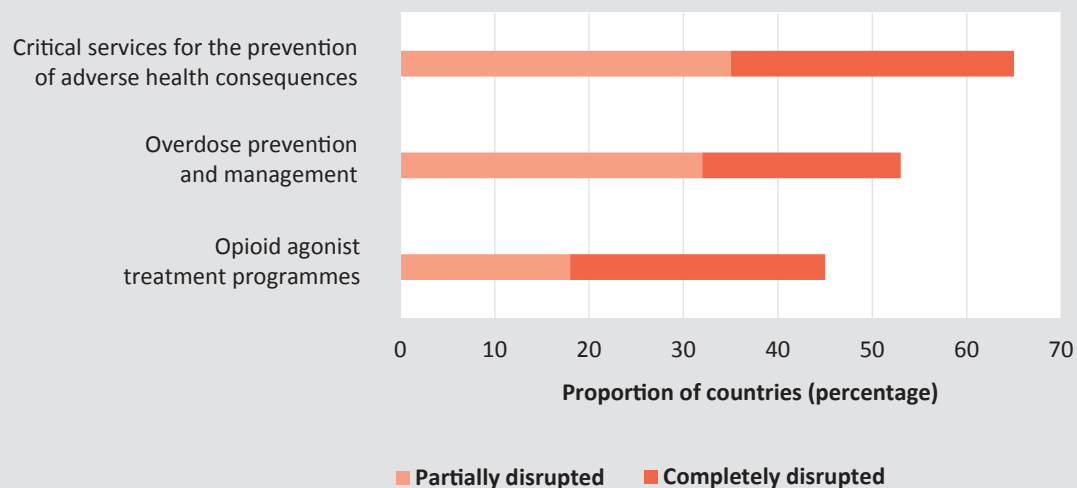
### POLICY IMPLICATIONS

**Adaptations** made as a result of COVID-19 to the delivery of services for drug use prevention and the treatment, care and rehabilitation of drug use-related disorders and HIV have **great potential to increase the accessibility and coverage of services** if they remain in place after the pandemic. The acceleration of Internet-based services creates a need for the updating of **scientific standards** on drug use prevention and the treatment, care and rehabilitation of drug use-related disorders and HIV. To ensure equal access to Internet-based services, particularly among the most marginalized, these standards will need to consider the different level of information technology literacy and access across the globe.

Evidence showing the health vulnerability of people who use drugs and with drug use disorders, including of those living with infectious diseases and those in prison, point to the need to **prioritize these groups for COVID-19 screening and vaccination**. People who use drugs, both in the community and in prison, need to be included in national plans for pandemic response. Such plans must ensure the continuity of treatment, care and rehabilitation services for people who use drugs, both in the community and in prison. Protecting the human rights of people who use drugs and reducing stigma, discrimination and inequality must remain key objectives if public health outcomes are to be optimized during the current and future pandemics.



### MANY COUNTRIES EXPERIENCED DISRUPTIONS TO DRUG USE SERVICES DURING THE EARLY STAGES OF THE COVID-19 PANDEMIC



# RESILIENCE OF DRUG MARKETS DURING THE PANDEMIC HAS ONCE AGAIN DEMONSTRATED TRAFFICKERS' ABILITY TO ADAPT QUICKLY TO CHANGED ENVIRONMENTS AND CIRCUMSTANCES



## FINDINGS AND CONCLUSIONS

Drug markets were temporarily disrupted in most parts of the world during the first phase of the COVID-19 pandemic, but they have recovered quickly.

Nevertheless, the pandemic has triggered or accelerated some pre-existing trafficking dynamics. These include larger shipment sizes and increased use of land and waterway routes, private planes, air cargo and postal parcels and contactless methods for delivering drugs to consumers, such as mail delivery.



## POLICY IMPLICATIONS

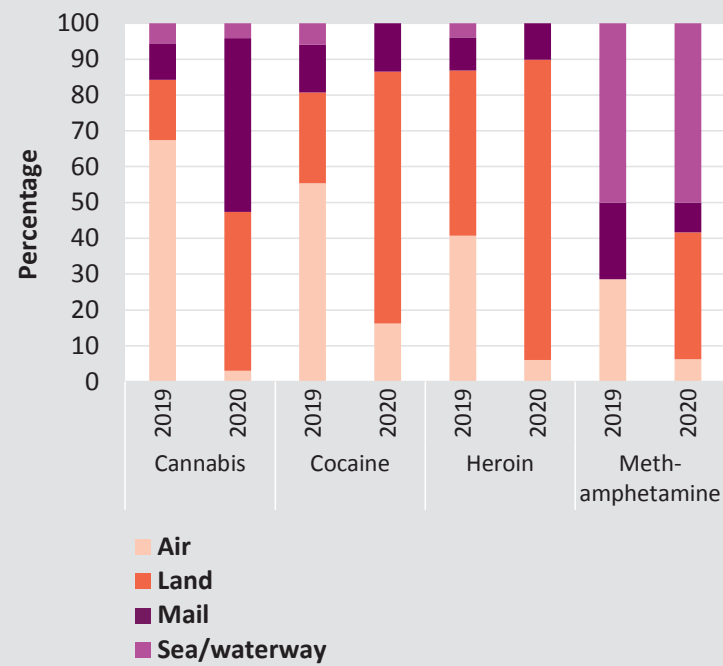
**Fostering international cooperation** remains a key objective for fighting the enduring problem of drug trafficking. It is essential that law enforcement agencies operating at key border points exchange information and transfer knowledge at the regional and international levels on effective interdiction approaches and best practices. Together, they can define new strategies to improve targeted control of containers and cargo shipped along air and maritime routes.

Surveillance and targeting capacity with regard to maritime, land, rail and air cargo must be improved substantially, but this can only be achieved if **intelligence is effectively shared** between national authorities and the private sector, such as shipping companies and commercial airlines. The development of **international accountability mechanisms** and best practices for shipping companies, postal services and railway operators with regard to tracking suspicious shipments would greatly increase interception capacity. This should go together with strategies aimed at addressing changes in trafficking dynamics through reinforced screening and the identification of suspicious air cargo on private and commercial aircraft.

Continual changes in the routes and tactics employed by traffickers require real-time data monitoring systems that can reinforce border management mechanisms and the knowledge of border control officials. Such systems can guide the priorities of law enforcement agencies and help to shape the training and mentoring of officers operating at major border points.



DURING THE COVID-19 PANDEMIC THERE HAS BEEN  
A CLEAR CHANGE IN THE MODE OF TRANSPORTATION  
OF SMALL-SCALE DRUG SEIZURES



# NON-MEDICAL USE OF CANNABIS AND SEDATIVES HAS INCREASED DURING THE PANDEMIC



## FINDINGS AND CONCLUSIONS

Most countries have seen an increase in the use of cannabis and non-medical use of pharmaceutical drugs such as benzodiazepines during the pandemic. In a survey of health professionals in 77 countries, a rise in the non-medical use of sedatives was reported in 64 per cent of countries and the consumption of cannabis was reported to have increased in 42 per cent.

Changes in patterns of use of other substances were less clear, but drugs such as “ecstasy” and cocaine that are typically used in social settings were being used less frequently.

North America has seen a spike in opioid overdose deaths since the onset of the pandemic. For example, opioid overdose deaths in Canada were 58 per cent higher during the quarter April–June 2020 as compared with the same period in 2019. Measures related to COVID-19 are known to have increased economic deprivation and feelings of social isolation, factors that can contribute to increased drug use.



## POLICY IMPLICATIONS

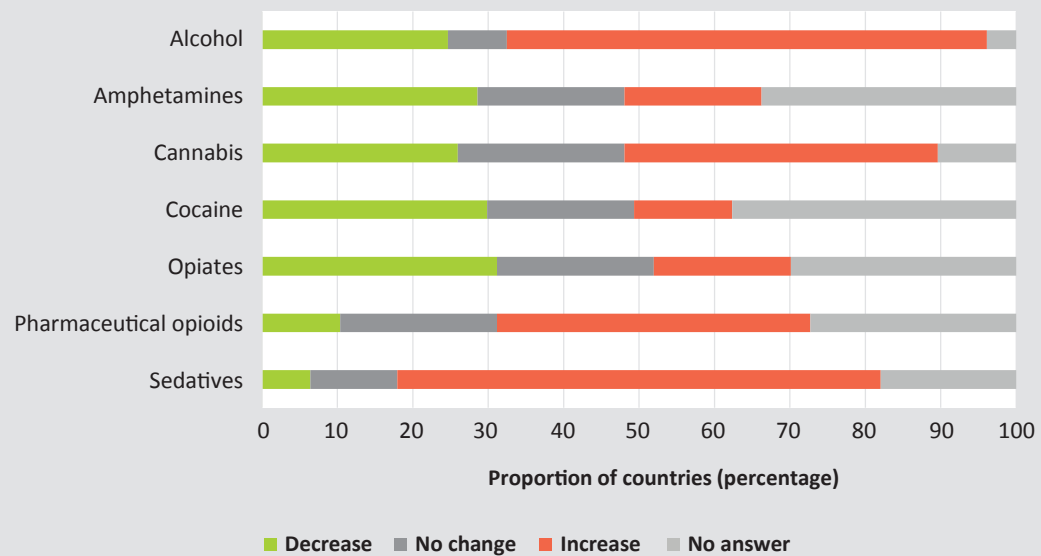
Sufficient **funding for drug use prevention and treatment responses needs to be allocated in national post-COVID-19 budgets** to avoid an acceleration of the increase in the use of certain drugs observed during the pandemic. Annual health budgets need to include a dedicated percentage for drug use prevention and treatment and HIV-related issues.

This will allow the coverage of services to be expanded and the quality to be improved, ensuring that people with drug use disorders do not resort to the use of more harmful substances or methods of administration. Negative outcomes such as drug-related deaths will therefore be reduced.

Prevention is a cost-effective measure to pre-empt further increases in the number of people who use cannabis and the harm arising from its increasing non-medical use. Post-pandemic investment needs to prioritize **scientific, evidence-based prevention** of drug use and other risky behaviours, with a special focus on the development of life skills in children and young people, parenting and family skills, and mental health services.



**ADDICTION MEDICINE PROFESSIONALS PERCEIVED IN MOST COUNTRIES AN INCREASE IN THE USE OF CANNABIS AND NON-MEDICAL USE OF PHARMACEUTICAL DRUGS DURING THE EARLY STAGES OF THE PANDEMIC**



# COVID-19 FALLOUT LIKELY TO BE FELT IN DRUG MARKETS FOR YEARS TO COME



## FINDINGS AND CONCLUSIONS

The pandemic has brought increasing economic hardship along with radical shifts in technology and dramatic alterations in social habits that are likely to affect drug patterns in the long run.

Fragile communities in opium poppy and coca bush cultivation areas have become increasingly vulnerable as the pandemic has affected their livelihoods. In Afghanistan, for example, the pandemic came after a drought in 2018 and floods in 2019, meaning that many farmers were already struggling to cope. The economic crisis brought on by the pandemic will only increase the appeal of illicit crop cultivation. Rising unemployment may mean that more people are willing to work as daily labourers for opium gum and coca leaf harvesting, while drug traffickers may also find recruitment easier in a time of hardship.

Meanwhile, inequality, poverty and mental health conditions are on the rise across the world, and these are known factors that push people into drug use and cause negative health consequences and a rise in drug use disorders. Changes already observed in drug use patterns, including increases in the use of cannabis and the non-medical use of pharmaceutical sedatives, are likely to accelerate the expansion of the market for these substances.

This is all likely to be fuelled by innovation in the retail distribution of drugs, with street dealing becoming less prevalent as contactless methods such as online purchasing and delivery by mail – and even drones – become more common.



## POLICY IMPLICATIONS

**Prevention through support to parents and young people** in vulnerable circumstances, so that they can better face the stresses of the pandemic without resorting to negative coping mechanisms, will be particularly needed in the recovery phase. Effective practices include the provision of training in family skills, shelter for people suffering domestic abuse and mental health services.

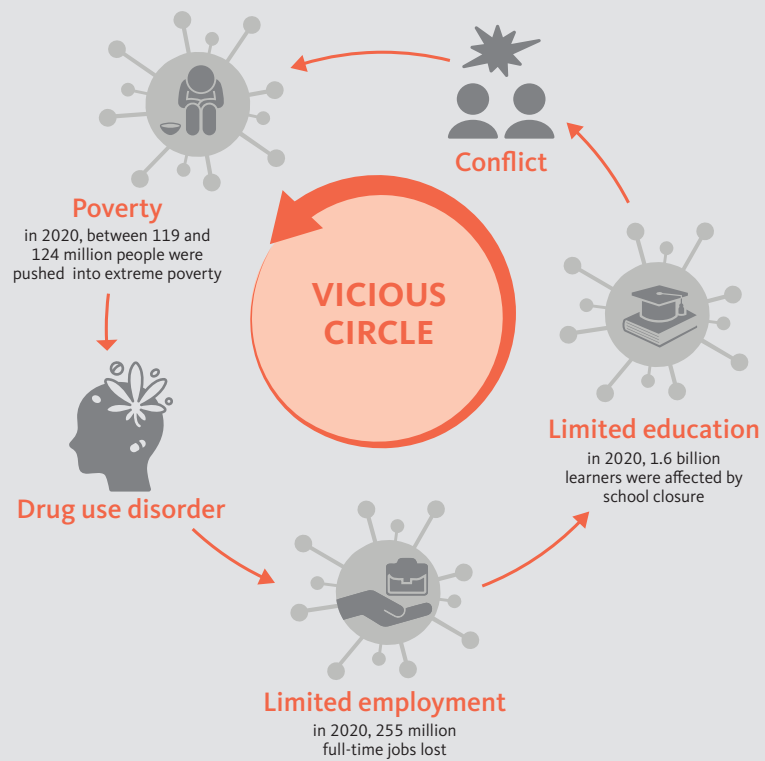
**Post-pandemic recovery plans** are opportunities to alleviate the negative consequences of the pandemic for vulnerable and marginalized groups. Communities of people who use drugs and communities engaged – or at risk of engaging – in illicit drug cultivation and production should be included in programmes involving housing, food supply, economic assistance and health insurance.

Development assistance to rural villages engaged in illicit drug cultivation is crucial to prevent increased engagement in production and trafficking by people who have lost employment because of the pandemic. Long-term investment in sustainable **alternative development interventions** can improve the conditions of households in rural areas. If implemented early in the recovery phase, these measures could steer households away from illicit activities and prevent the migration of labour to illicit drug economies, helping to secure the progress made in recent years.

Alternative development interventions can help communities to boost their skills, improve their infrastructure and move beyond basic livelihood development levels in ways that do not damage the environment. Moreover, involving the private sector can dramatically expand the profitability of products or services. Measuring the impact of these alternative development interventions will be important for strengthening the evidence base and further increasing the effectiveness of such projects.



THE COVID-19 PANDEMIC HAS EXACERBATED THE FACTORS  
THAT FUEL THE VICIOUS CYCLE OF SOCIO-ECONOMIC  
VULNERABILITY AND DRUG USE DISORDERS



# NUMBER OF NPS EMERGING IN HIGH-INCOME COUNTRIES IS FALLING, BUT AVAILABILITY MAY BE SPREADING TO POORER REGIONS



## FINDINGS AND CONCLUSIONS

The number of NPS emerging on the global market fell from 163 in 2013 to 71 in 2019. This reflects trends in subregions such as North America and Western and Central Europe, where the main markets for NPS first emerged a decade ago.

The figures suggest that national and international control systems have succeeded in limiting the spread of NPS in high-income countries. Some high-income countries have adopted generic legislation covering possible future variants of controlled substances; others have applied analogue legislation more strictly than in the past, allowing the courts to determine whether substances have structures and effects similar to others already under national control.

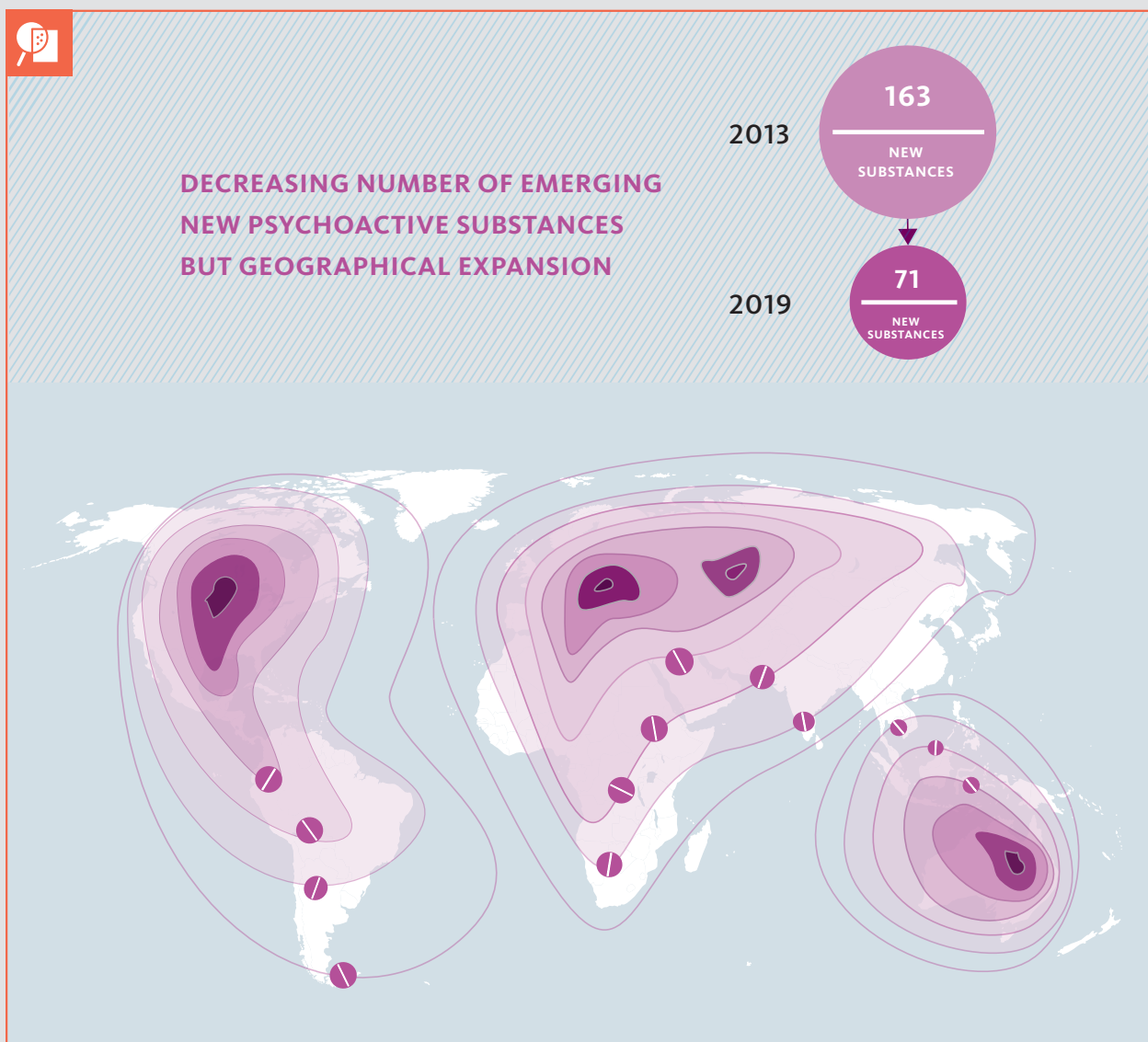
However, the NPS problem has now spread to poorer regions, where control systems may be weaker. For example, seizures of synthetic NPS in Africa rose from less than 1 kg in 2015 to 828 kg in 2019. There was a similar trend in Central and South America, with seizures rising from 60 kg to 320 kg over the same period.



## POLICY IMPLICATIONS

There is much to learn from the positive trend of NPS containment. Countries and regions that have more recently been exposed to the challenge of NPS can benefit greatly from increased international cooperation and the **transfer of best practices** from the countries that have managed to contain the problem through legislative, law enforcement and forensic efforts.

Responses that have helped to contain the supply of NPS and reduce negative health consequences can be expanded to lower-income countries, some of which are increasingly vulnerable to the emergence of NPS. Those responses include **early warning mechanisms** that ensure a continuum of evidence-based measures from early detection to early action, post-seizure inquiries, including the formation of joint investigation teams, and training of emergency health workers on how to address cases of acute NPS intoxication. The expansion of services for people who use drugs and people with drug use disorders to people who use NPS can also help addressing the harm posed by those substances.



# COCAINE SUPPLY CHAINS TO EUROPE ARE DIVERSIFYING, PUSHING PRICES DOWN AND QUALITY UP, THREATENING EUROPE WITH A FURTHER EXPANSION OF THE COCAINE MARKET



## FINDINGS AND CONCLUSIONS

The cocaine trafficking route between South America and Europe is the second biggest in the world, and it is evolving. Supply chains once dominated by a few organized crime groups are changing, with many more groups involved.

Much of the cocaine in Europe used to be imported through well-established channels, notably by Italian organized crime groups and through alliances between Colombian and Spanish groups. Now, however, organizations originating in the Balkans are increasingly involved in trafficking and supply, and some are now cutting out intermediaries and sourcing cocaine directly from the production areas in the Andean region.

The increased competition and efficiency of supply mean that cocaine is becoming more available and the quality is rising. The purity of cocaine available in Europe has increased by 40 per cent in the past decade, meaning that high-quality cocaine has, in effect, become cheaper per pure unit.

Easier access to high-quality cocaine is likely to increase the overall number of people using cocaine and encourage those people who currently use cocaine to use more. This will continue to increase the potential harm caused by the drug.



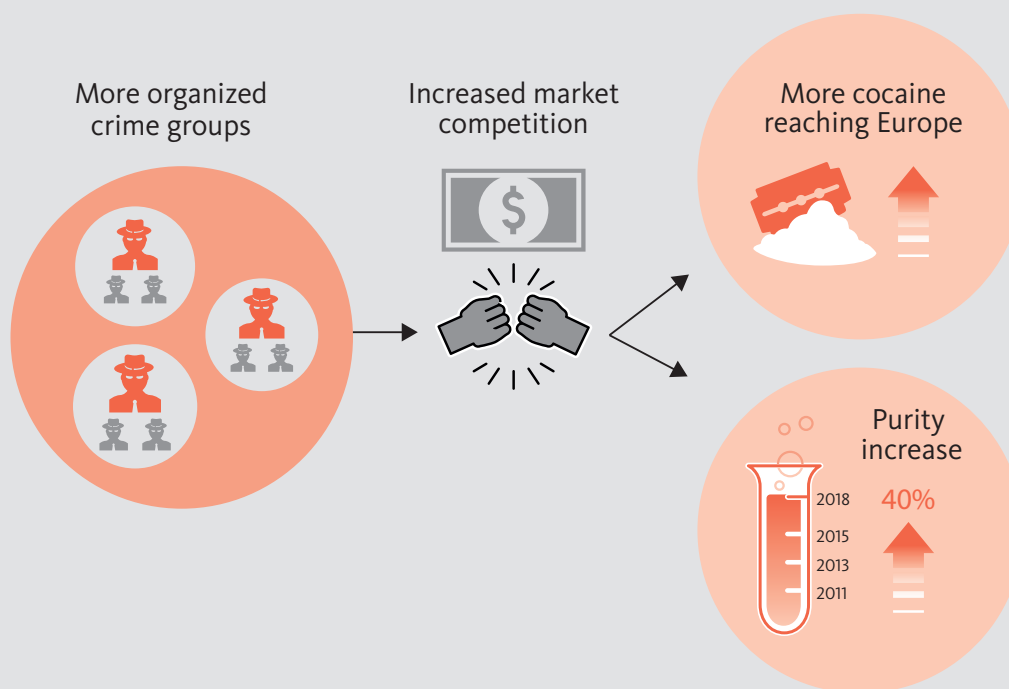
## POLICY IMPLICATIONS

Preventing increases in the supply of cocaine from translating into more people using the substance and more associated harm needs **solid investment in drug** use prevention and treatment. This investment should focus on targeting people who could possibly initiate use of cocaine and on research to develop pharmacological responses. A real-time monitoring system of both supply and demand and the **illicit financial flows** generated by the cocaine market is also needed to better understand how to target traffickers' profits.

Preventing the threat of a further increase in the cocaine supply to Europe requires the **boosting of international cooperation** between the Americas and Europe and the transfer of best law enforcement practices in terms of targeting loose criminal networks and new communication tools. Such cooperation needs to include not only law enforcement but also prosecutors, and should also involve the promotion of joint investigation teams through Eurojust and Europol.



**COCAINE SUPPLY CHAIN TO EUROPE HAS BECOME MORE EFFICIENT,  
RESULTING IN GREATER SUPPLY, A PURER PRODUCT  
AND INCREASED AVAILABILITY**



# DEEPENING DRUG PROBLEM IN AFGHANISTAN RISKS EXACERBATING REGIONAL THREAT



## FINDINGS AND CONCLUSIONS

Afghanistan reported a 37 per cent increase in the amount of land used for illicit cultivation of opium poppy during 2020 compared with the previous year. It was the third highest figure ever recorded in the country and accounted for 85 per cent of the global total of opium production in 2020. The increase follows a trend that has seen the global area under opium poppy cultivation rise over the past two decades, particularly after 2009.

Afghanistan is also now becoming a major source for methamphetamine in the region. In neighbouring the Islamic Republic of Iran, the proportion of Afghan-origin methamphetamine seized increased from less than 10 per cent in 2015 to around 90 per cent in 2019. Seizures in Afghanistan increased almost sevenfold in 2019 as compared with a year earlier. This came even as air strikes in Taliban-held border regions wiped out dozens of methamphetamine laboratories in a single day in 2019.

The expansion of methamphetamine manufacture adds complexity to the illicit drug economy of Afghanistan and increases the threat to countries in the region and beyond. Political instability could further increase the vulnerability of local communities to both the production of opium and the manufacture of methamphetamine.

The health consequences of the surge in methamphetamine manufacture in Afghanistan are already beginning to affect the country. Young people are now exposed not only to the largest supply of opiates in the world in one of the largest illicit drug economies, but also to an increasingly diversified market of synthetic drugs. Surveys show a relatively high proportion of young people reporting recent methamphetamine use.



## POLICY IMPLICATIONS

Afghanistan is a prime example of how **politics, security and narcotics interlink**. With politics and security being discussed during the current peace negotiations, the illicit economy as an important wealth creator is not to be overlooked. In the meantime, strengthening alternative livelihoods will help to reduce opium cultivation, build community resilience in uncertain times and stem outward migration. Beyond this, regional cooperation is crucial among the countries immediately affected by the expansion of both opiates and synthetic drugs. **Strengthening international cooperation with Afghanistan** is today more important than ever, given that international troops will soon be leaving the country. Identifying targets, supporting regional counter-narcotics operations and proposing regional action plans are now a priority for setting responses to the trafficking of drugs originating in Afghanistan.

The drug problem faced by Afghanistan has regional and global roots and ramifications. **At the national level**, Afghanistan needs support to provide sustainable and viable alternative livelihoods to rural communities, to strengthen interdiction through poppy eradication and to promote counter-narcotic campaigns. The country also needs help to increase capacity to disrupt manufacturing and trafficking networks, as well as to improve governance and security. It faces the task of addressing negative health consequences related to the drug use problem that is now growing in complexity with the increased use of synthetic drugs, particularly among young people.

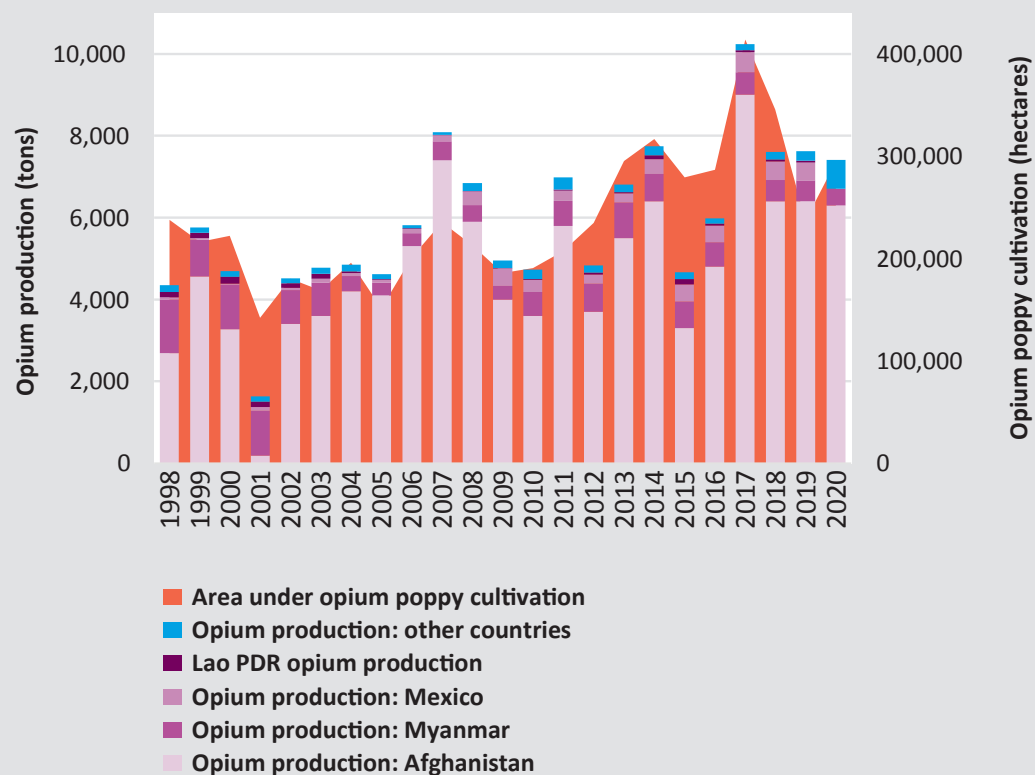
**At the regional level**, countries need support in the use of advanced investigative techniques in controlled delivery operations, backtracking investigations and money-laundering and financial investigations aimed at dismantling criminal organizations involved in trafficking drugs and their precursors in the region. Law enforcement education and training institutions need to operate under international standards in the identification and analysis of forensic evidence to track the movement of illicit drugs and their precursor chemicals in West and Central Asia. It would be particularly effective to provide support in addressing the diversion of precursor chemicals required in heroin and methamphetamine manufacture.

Regional and subregional law enforcement cooperation platforms, including the Central Asian Regional Information and Coordination Centre, the Triangular Initiative and its Joint Planning Cell, and the Afghanistan–Kyrgyzstan–Tajikistan Initiative, need to be strengthened.

Developments in Afghanistan call for improved analysis of the impact of the illicit drug economy and more comprehensive monitoring of the drug market, particularly methamphetamine and the chemicals used in its manufacture.



### GLOBAL PRODUCTION OF OPIUM REMAINS AT HIGH LEVEL WITH AFGHANISTAN ACCOUNTING FOR 85 PER CENT



# METHAMPHETAMINE SEIZURES HAVE ROCKETED BUT ITS PRECURSORS ARE LARGELY UNDETECTED



## FINDINGS AND CONCLUSIONS

While the amount of methamphetamine seized increased threefold between 2011 and 2019, seizures of its internationally controlled precursors declined by 99 per cent over the same period. The internationally controlled precursor chemicals seized in 2011 would have been enough to manufacture 700 tons of the drug, seven times the amount of methamphetamine intercepted that year. By 2019, the amount of precursor chemicals seized had fallen to an equivalent of 10 tons of methamphetamine, whereas a much higher quantity of the drug, 325 tons, was seized.

This dynamic is down to the agility of traffickers in changing the chemicals they use, to bypass interdiction. Criminal groups in Afghanistan are known to use the *Ephedra plant*, which is not internationally controlled, to produce the precursor ephedrine while in North America and Western Europe they use non-controlled chemicals to manufacture the precursor P-2-P, which is then used to make methamphetamine.

The capacity, know-how and versatility of traffickers in swapping the chemicals and tweaking their processes is challenging the capacity of Member States to control precursors. The low proportion of precursors intercepted could also be caused by law enforcement agencies placing a higher priority on the seizure of the end drug product than on the seizure of its precursors.



## POLICY IMPLICATIONS

**The partnership between Governments and the private sector** has become essential in the control of precursors of synthetic drugs, including methamphetamine. It helps to identify the possible diversion of non-controlled precursors from the licit supply chain. Regular monitoring by national authorities, together with the private sector, can allow **law enforcement to develop the same agility as traffickers** and to quickly change targets in their precursor control strategy, in particular towards non-controlled chemicals. Forensic laboratories with the **capacity to conduct confirmatory testing** on suspected drugs and chemicals can also generate important information about methamphetamine, including its chirality and purity, that would allow the synthesis routes and the origin of precursor chemicals to be traced.

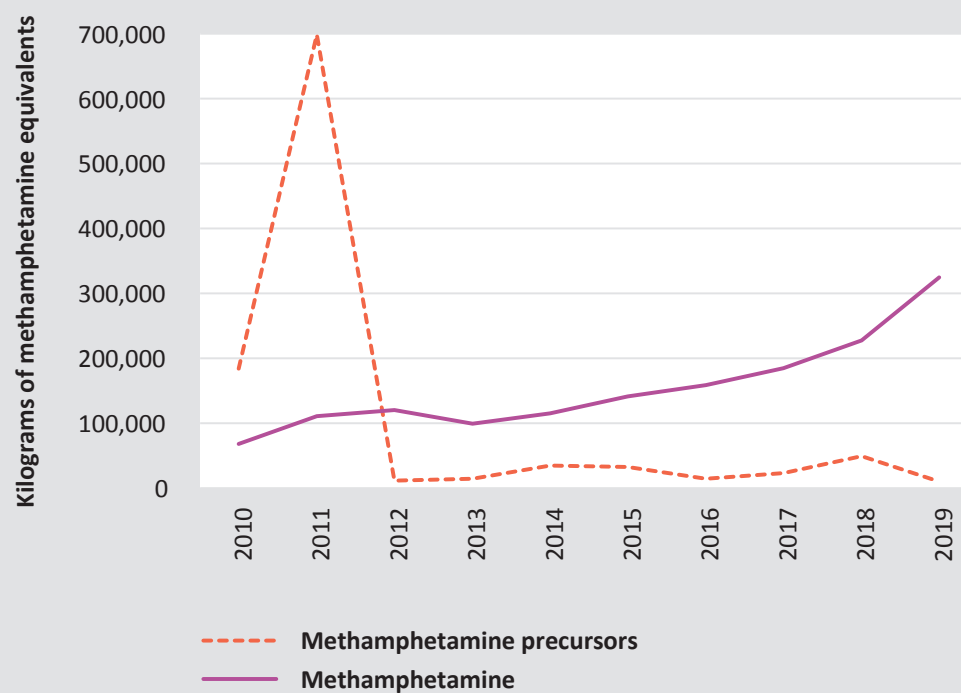
The establishment and strengthening of **networks of central authorities that regulate precursor chemicals** based on source, transit and destination countries can facilitate information-sharing and initiate joint backtracking investigations. These networks can also raise awareness of non-controlled chemicals used in the manufacture of ATS.

Mechanisms that **support front-line officers at border checkpoints** in areas with high trafficking levels can also enhance transnational capacity to disrupt flows of controlled and non-controlled chemicals in manufacturing areas.

Finally, there is a need to improve the regular monitoring of methamphetamine consumption with cost-effective methods such as the analysis of wastewater. This type of analysis can also help to identify potential clandestine manufacture at the local level.



THE GLOBAL INTERCEPTION OF METHAMPHETAMINE  
HAS INCREASED OVER THE YEARS WHILE THE INTERCEPTION OF ITS  
INTERNATIONALLY CONTROLLED PRECURSORS HAS DECLINED



# PHARMACEUTICAL DRUGS USED TO TREAT OPIOID USE DISORDERS HAVE BECOME MORE AVAILABLE



## FINDINGS AND CONCLUSIONS

The two pharmaceutical opioids most commonly used to treat people with opioid use disorders, methadone and buprenorphine, have become increasingly accessible over the past two decades. The amount available for medical use has increased sixfold since 1999, from 557 million daily doses in that year to 3,317 million by 2019. This is a positive sign that science-based pharmacological treatment is more available now than in the past.

However, as with other pharmaceutical opioids, there are large differences across countries and regions. The availability of these substances is generally high in North America, Western and Central Europe and in the most-developed parts of Oceania. Many countries in Africa and Asia, however, reported either limited availability or no availability of either. This results in a varying coverage of opioid agonist treatment for drug use disorders.

The availability of the substances for medical purposes can reflect factors including a country's income level, the use of such substances for analgesic purposes or the number of people with opioid use disorders. It can also be affected by policies relating to opioid agonist treatment.

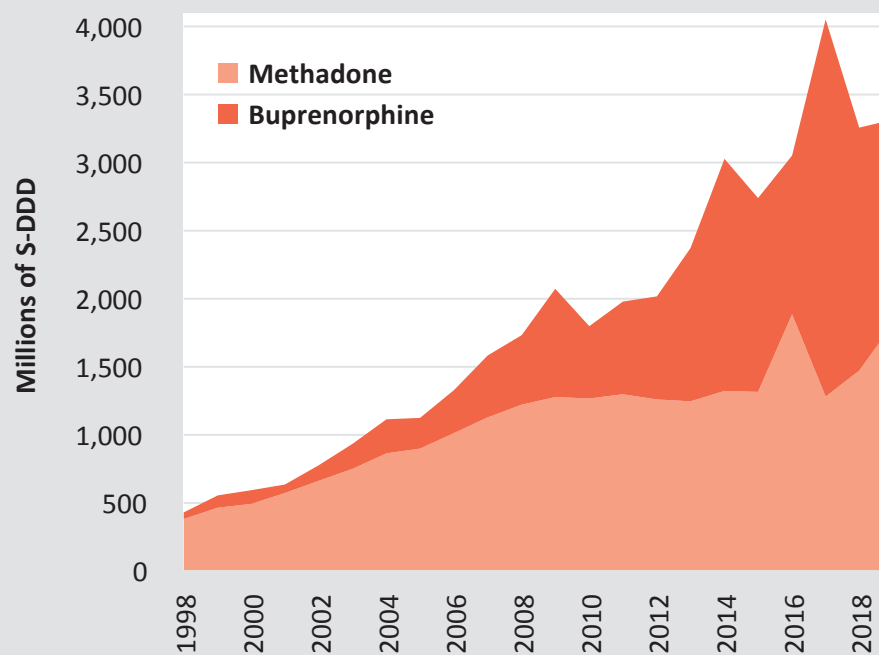


## POLICY IMPLICATIONS

The encouraging trend of increased availability of methadone and buprenorphine provides an **opportunity for accelerating science-based treatment** of drug use disorders and making opioid agonist treatment more widely available. Special efforts should be made in countries where availability remains low, while continuing efforts to prevent the diversion of such substances to illegal markets. Drug treatment should be available to all in need, including people with drug use disorders in prisons and other closed settings. Approaches adopted during the COVID-19 pandemic have shown that access to opioid agonist therapy can be maintained even in challenging situations through low-threshold services and the scale-up of take-home therapy.



**MORE DOSES OF PHARMACEUTICAL DRUGS COMMONLY  
USED TO TREAT PEOPLE WITH OPIOID USE DISORDERS  
HAVE BECOME GLOBALLY AVAILABLE**



# PATIENTS IN SEVERE PAIN IN POORER COUNTRIES STILL SUFFER FROM MEDICATION SHORTAGES



## FINDINGS AND CONCLUSIONS

In 2019, medical professionals in West and Central Africa had access to 4 standard doses of controlled pain medication every day per 1 million inhabitants. In North America, the figure was about 32,000 doses. Patients with acute or chronic pain from serious illnesses such as cancer endure unnecessary suffering on a large scale.

The shortages in supply were not limited to Africa. Parts of Asia, Oceania, Central and South America and the Caribbean also reported availability that was less than 1 per cent of that of North America.

Overall, the availability of pharmaceutical opioids for each person in low- and middle-income countries was less than 1 per cent of that in high-income countries in 2019. This is despite 84 per cent of the world's population living in low- and middle-income countries.



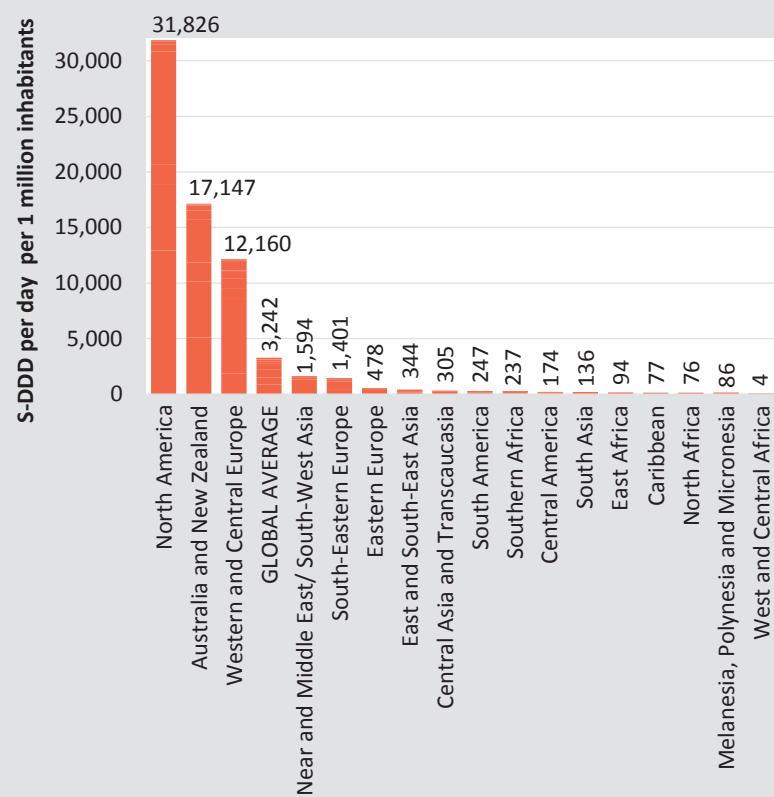
## POLICY IMPLICATIONS

Following the basic tenets of the drug conventions, countries and the global community need to strike a **better balance in providing access to controlled medications** to manage pain while avoiding the development of a market for the non-medical use of such medications. Countries need **to address the barriers** to equitable access to medications for pain management and palliative care by reviewing policies, addressing challenges in the supply chain, supporting health workers and raising awareness among the general public to increase access to controlled medicines while preventing diversion and non-medical use.

During the pandemic, accessibility to controlled medications to manage pain has been particularly critical to support patients who contracted the virus and those who could not access proper care in hospitals because of the virus. INCB, UNODC and WHO have called upon Governments to ensure that the procurement and supply of controlled medicines during the pandemic meets the needs of patients, both those who have COVID-19 and those who require internationally controlled medicines for other conditions.



## CRITICAL LOW AVAILABILITY OF CONTROLLED PAIN MEDICATION IN LOW- AND MIDDLE-INCOME COUNTRIES



# NUMBER OF PEOPLE USING DRUGS HAS RISEN 22 PER CENT IN THE PAST DECADE



## FINDINGS AND CONCLUSIONS

Roughly 275 million people globally have used drugs in the past year, up from 226 million in 2010. This 22 per cent increase was partly due to a 10 per cent rise in the global population.

Health-care systems are facing an increasingly tough task, with estimates suggesting that about 36 million people were suffering from drug use disorders in 2019, up from an earlier estimate of 27 million in 2010. This represents a rise from 0.6 to 0.7 per cent of the global population.

Although the number of people with drug use disorders has increased, the availability of treatment interventions has remained low. Just one in eight of those suffering from a drug use disorder received professional help in 2019. Shortages in these services were felt most of all in poorer countries. This is despite overwhelming evidence that the cost of treating drug use disorders is much lower than the cost of untreated drug dependence.

The rise in people using drugs and suffering drug use disorders has gone together with the arrival of hundreds of synthetic drugs on the market, and with a dramatic expansion of the non-medical use of opioids. Moreover, some drugs are more potent than they were a decade ago. All of this increases the risk to individual users and adds to the burden of health-care systems.



## POLICY IMPLICATIONS

**Prevention** remains the best first-line approach to reducing drug use and drug use disorders. The most effective approaches are those that contribute to the positive engagement of young people with their families, schools and communities, creating all-inclusive and safe neighbourhoods.

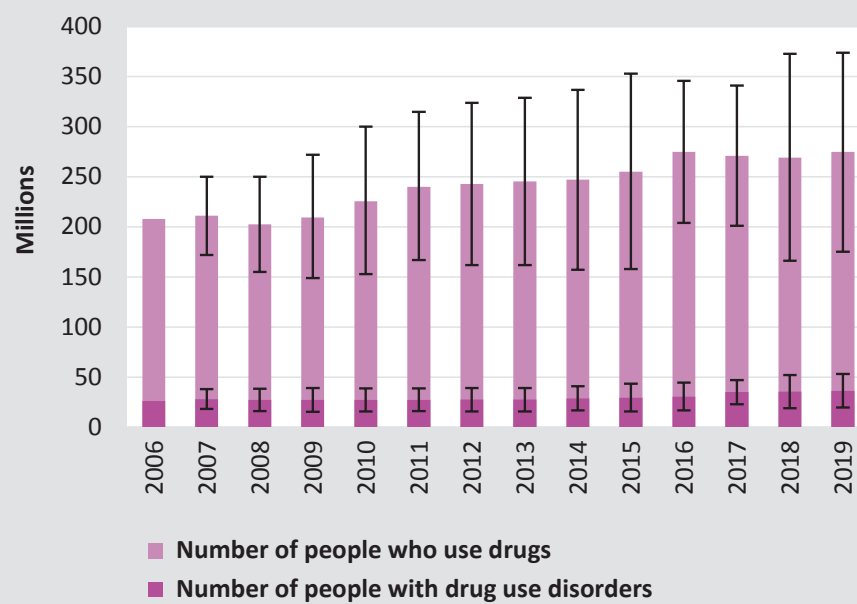
**Communities and civil society organizations** — including organizations and networks of people who use drugs, people in recovery and other people affected by drugs—**can greatly support** prevention and treatment efforts. They should be included, supported and empowered in all aspects of the design, implementation, monitoring and evaluation of service delivery.

The increased number of people with drug use disorders globally calls for the scaling up of evidence-based interventions that take a multi-factorial approach. Such interventions should be integrated within the overall health-care delivery system and should address the needs of those in vulnerable circumstances, including women, children and adolescents and people in contact with the criminal justice system.

**Protecting and promoting the human rights of people who use drugs** by treating them with dignity, removing stigma and providing equal access to health and social services need to be the underlying principles of all interventions related to drug use prevention and treatment.



**THE NUMBER OF PEOPLE WITH DRUG USE DISORDERS  
WAS IN 2019 33 PER CENT HIGHER THAN IN 2010**



# FENTANYLS REMAIN THE PHARMACEUTICAL OPIOIDS MOST SEIZED IN TERMS OF DOSES, WITH NORTH AMERICA DOMINATING THESE SEIZURES



## FINDINGS AND CONCLUSIONS

The amounts of fentanyl and its analogues seized globally have risen rapidly in recent years, and by more than 60 per cent in 2019 compared with a year earlier. Overall, these amounts have risen more than twenty-fold since 2015. The largest quantities were seized in North America.

Elsewhere in the world, other pharmaceutical opioids (codeine and tramadol) predominate. Over the period 2015–2019, the largest quantities of tramadol seized were reported in West and Central Africa; they accounted for 86 per cent of the global total. Codeine was intercepted in large quantities in Asia, often in the form of diverted cough syrups.

In terms of weight seized, other pharmaceutical opioids far outweigh fentanyls. However, when expressed in terms of standard daily doses, fentanyl accounted for 39 per cent of the pharmaceutical opioids seized in 2019. This figure rises to 52 per cent when all the different fentanyl mixtures and analogues are included.

The seizure pattern of pharmaceutical opioids reflects the different illegal markets that feed the non-medical use of pharmaceutical opioids in different regions. The impact of these illegal markets is clear in the harm that these substances pose to health.



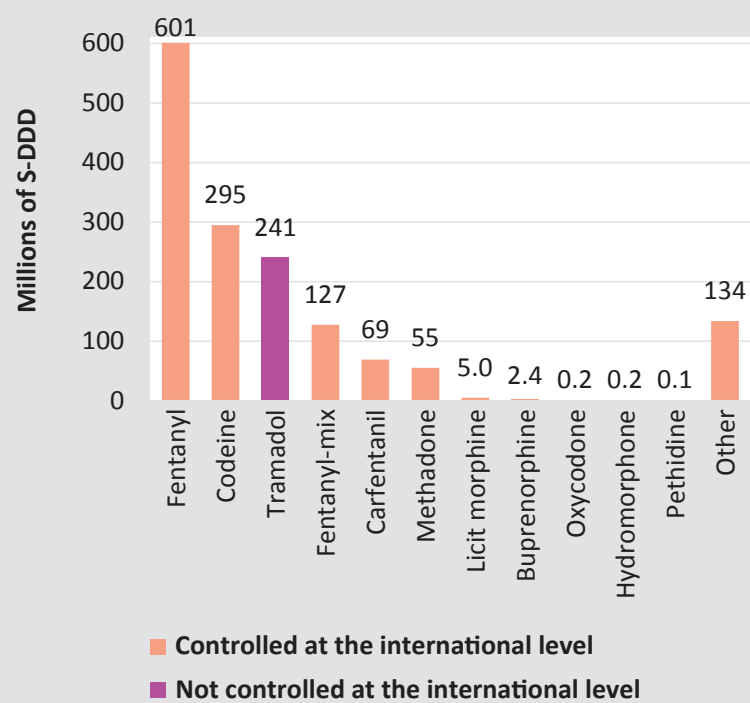
## POLICY IMPLICATIONS

Large parts of the illegal markets that feed the non-medical use of pharmaceutical opioids are supplied by **illegally manufactured opioids**; reducing these illegal markets requires increased international cooperation and law enforcement capacity to dismantle transnational drug trafficking groups. In North America, where fentanyls are not generally diverted from the legal medical market and people often consume them inadvertently as a cutting agent of other drugs, attempts to reduce the illegal market need to concentrate **on dismantling criminal groups and stopping illegal manufacturing**, particularly through precursor control.

The situation in West, Central and North Africa is more complex. While the illegal market for tramadol remains supplied by illegal manufacturing, there is a specific demand related to the non-medical use of tramadol. The distinction between the illegal and legal markets for medicines is blurred, and there is a large informal market for medicines. This environment is also characterized by limited access to essential medicines. In this context, law enforcement actions and international cooperation remain essential to dismantle relevant criminal groups, but they are not sufficient. More needs to be done to determine **the right balance between providing access to essential medicines and avoiding non-medical use**. Prevention campaigns need to be designed to make people more aware of the benefits of using opioids such as tramadol for medical use, and the harm they pose when they are used for non-medical purposes.



THE SHARP INCREASE IN THE SEIZURES OF FENTANYL IN NORTH AMERICA HAS LEAD GLOBAL SEIZURES OF PHARMACEUTICAL OPIOIDS TO BE DOMINATED BY FENTANYL IN TERMS OF STANDARD DOSES (2019)



# GLOBAL AREA UNDER COCA CULTIVATION DECLINES BUT COCAINE MANUFACTURE HITS RECORD HIGH



## FINDINGS AND CONCLUSIONS

Global cocaine manufacture doubled in output between 2014 and 2019 to reach an estimated 1,784 tons in 2019, the highest level ever. Over the same period, seizures of cocaine more than doubled. Meanwhile, wastewater analysis showed a marked increase in the amounts of cocaine consumed per capita in Europe, one of the two main global markets. This all points to a surge all along the cocaine supply chain.

However, the rate of increase in manufacture has slowed. While the year-on-year increase in manufacture in 2016 stood at 37 per cent, it was just 3.5 per cent in 2019.

Moreover, the area under coca bush cultivation declined globally by 5 per cent in 2019, largely driven by the first significant fall in cultivation in six years in Colombia. Despite that, the country is still by far the largest source of cocaine globally. The area under cultivation remained stable in Peru and increased in the Plurinational State of Bolivia.

The slowing rate of growth in cultivation had suggested that subsequent years would see cocaine manufacture decline. However, the COVID-19 pandemic and the resulting socioeconomic fallout may increase the vulnerabilities of farmers and create incentives to continue producing coca leaf.



## POLICY IMPLICATIONS

International **assistance for farmers** in the coca bush-growing areas of the Andean region remains a fundamental pillar in reducing illicit cultivation and production in those areas. The strategies that have proved to be effective include providing crops and other alternative livelihoods that grant food security, and agroforestry solutions that open up export markets for sustainable farming and reduce conflict levels among coca farmers.

Large-scale cocaine smuggling out of the Andean countries calls for strengthened international **cooperation** by **law enforcement** agencies, particularly on land and sea routes for trafficking established in response to restrictions to air travel after the COVID-19 outbreak. An improvement in **container control** could be helpful. The Parana-Paraguay waterway system, for example, needs increased controls at the ports connecting several countries to the Atlantic, a route that has been rapidly growing in importance. New strategies are needed to address the high number of clandestine and domestic ports in the area that are increasingly used for alternative trafficking routes.

The increased use of light aircraft to transport cocaine across South America during the COVID-19 pandemic calls for the **control of general aviation** to be strengthened. Technical assistance is particularly effective in areas such as regulation of pilot licensing and recording of transactions involving aircraft parts and aviation fuel.

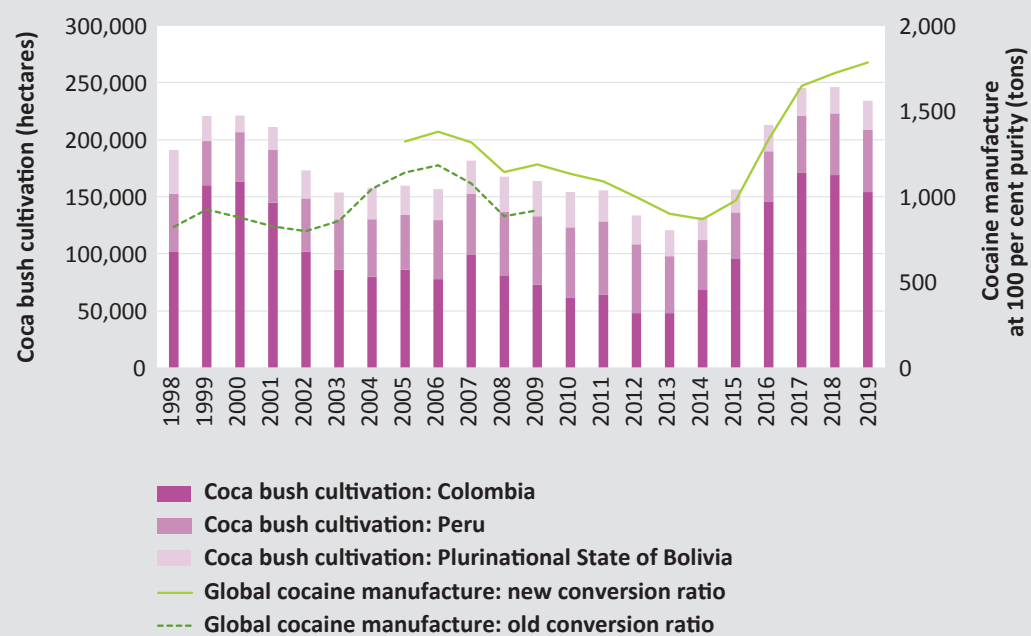
Further assistance is required at the **forensic level**, particularly with regard to building laboratory capacity for chemical footprint analysis that can ultimately support both domestic and international criminal investigations into cocaine trafficking.

Strategies that promote alternative livelihoods to coca bush cultivation and coca production must also involve strengthening institutions and improving access to the services they provide.

The timely monitoring of coca bush cultivation and cocaine manufacture and trafficking, including related illicit financial flows, remains a priority. Along with this, innovative tools and geospatial analysis must be used to enhance understanding of the drivers of the coca economy and its links with the legal economy in areas along the supply chain.



AFTER REACHING A RECORD HIGH IN THE GLOBAL AREA UNDER COCA CULTIVATION, LAST ESTIMATE SHOWS A 5 PER CENT DECLINE, BUT COCAINE MANUFACTURING IS STILL ON A RISE



# SECURITY GAPS IN AREAS WHERE METHAMPHETAMINE IS MANUFACTURED ARE LIKELY DRIVING MARKET EXPANSION IN SOUTH-EAST ASIA AND NORTH AMERICA



## FINDINGS AND CONCLUSIONS

The methamphetamine market is still expanding in South-East Asia and North America, with manufacture moving to geographical areas in Myanmar where there is instability and to areas in Mexico where there is a strong presence of organized criminal groups.

In the period 2015–2019, more than 90 per cent of the methamphetamine seized globally was seized in South-East Asia and North America. In North America, seizures increased eightfold, to 153 tons, between 2009 and 2019. In the same period, there was an elevenfold increase in seizures in South-East Asia, to 141 tons.

The growth of methamphetamine trafficking in North America has come at the same time as so-called product innovations that have seen the drug take a variety of forms: powder, crystals, solutions and tablets that resemble MDMA or falsified pharmaceuticals. Manufacturers in North America are also increasingly mixing fentanyl with other drugs, contributing to a sharp rise in methamphetamine-related deaths in recent years.

In South-East Asia, falling prices of methamphetamine products combined with rising seizures suggests that supply may have outstripped demand in the subregion. Organized criminal groups are taking advantage of loose controls over precursor chemicals and sometimes slow cooperation across borders. This has brought profound changes to the illicit drug markets in South-East Asia and the Pacific.

Manufacture of the drug has been consolidated in the Golden Triangle region of Myanmar, where a decrease in the opium market has been observed together with increased manufacture of and trafficking in methamphetamine. Security problems and limited access to these areas are posing significant challenges.



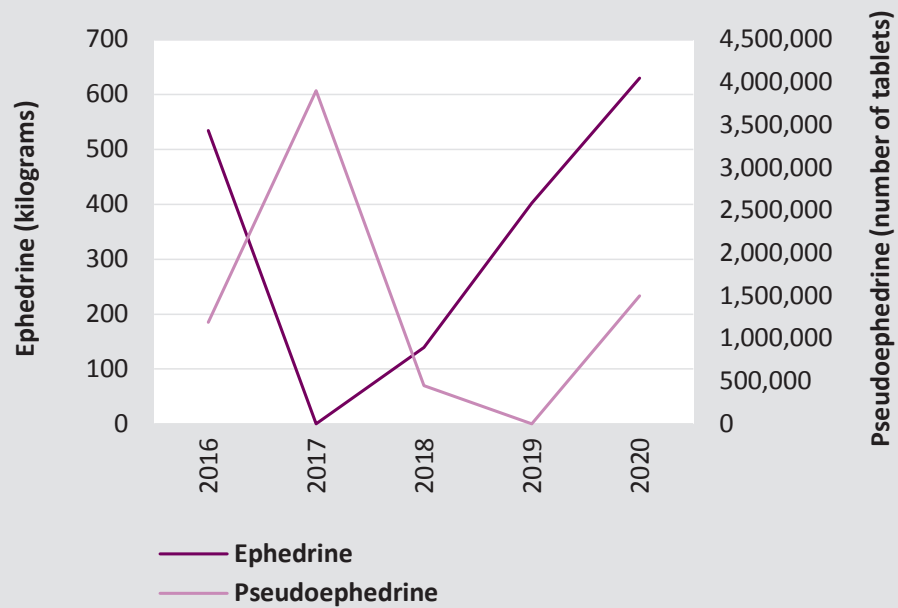
## POLICY IMPLICATIONS

In South-East Asia and Mexico, methamphetamine manufacture is connected with violence and insecurity. However, many aspects of the institutional and financial mechanisms of this connection remain largely unexplored.

In South-East Asia, providing support to countries surrounding Myanmar is crucial given the current volatile situation. It is also important to strengthen capacity in neighbouring countries to stop flows of chemicals into areas where drugs are produced and manufactured.



### SEIZURES OF METHAMPHETAMINE PRECURSORS INTERNATIONALLY CONTROLLED, MYANMAR



# OVERDOSES INVOLVING FENTANYLS CONTINUE TO DRIVE THE OPIOID CRISIS IN NORTH AMERICA



## FINDINGS AND CONCLUSIONS

Almost 50,000 people died from overdose deaths attributed to opioids in the United States in 2019, more than double the 2010 figure. By comparison, in the European Union, the figure for all drug-related overdoses (mostly relating to opioid use) stood at 8,300 in 2018, despite the larger population.

However, the opioid crisis in North America is evolving. The number of deaths attributed to heroin and the non-medical use of pharmaceutical opioids such as oxycodone or hydrocodone has been declining over the past five years.

The crisis is now driven mainly by overdose deaths attributed to synthetic opioids such as fentanyl and its analogues. Among the reasons for the large number of overdose deaths attributed to fentanyls is that the lethal doses of them are often small when compared with other opioids. Fentanyl is up to 100 times more potent than morphine.

The impact of fentanyl is illustrated even further by the fact that more than half of the deaths attributed to heroin also involve fentanyls. Synthetic opioids also contribute significantly to the increased number of overdose deaths attributed to cocaine and other psychostimulants, such as methamphetamine.

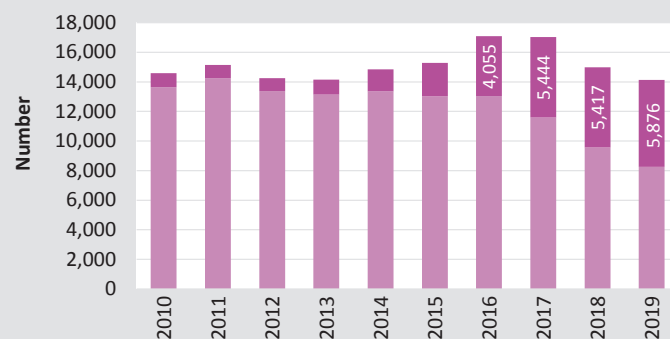


## POLICY IMPLICATIONS

To help prevent overdose deaths in North America, it is vital that those who are opioid dependent, including those in prison or recently released from prison, have access to proper treatment and services. Access to methadone and buprenorphine needs to be ensured; increasing the availability of take-home naloxone can save many lives. Furthermore, scaling up the training of people likely to witness an overdose – including peers, family members, first responders and the police – and equipping them with naloxone has been shown to be effective. Achieving this kind of coverage will involve tackling barriers that include cost and stigma.

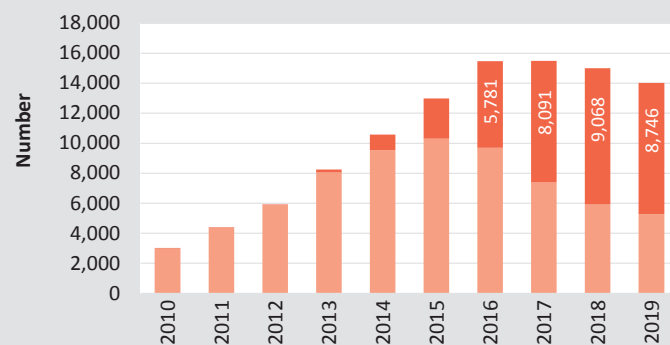


**IN THE UNITED STATES, NUMBER OF OVERDOSE DEATHS  
ATTRIBUTED TO HEROIN AND PHARMACEUTICAL OPIOIDS ALONE  
ARE DECREASING BUT THOSE ATTRIBUTED TO THE SAME SUBSTANCES  
MIXED WITH FENTANYLS ARE INCREASING**



**Pharmaceutical opioids**

- Deaths involving pharmaceutical opioids and other synthetic opioids (fentanyl)
- Deaths involving pharmaceutical opioids without other synthetic opioids



**Heroin**

- Deaths involving heroin and synthetic opioids (fentanyl)
- Deaths involving heroin without other synthetic opioids

# OPIOID USE CONTINUES TO ACCOUNT FOR THE LARGEST BURDEN OF DISEASE ATTRIBUTED TO DRUGS



## FINDINGS AND CONCLUSIONS

The burden of disease caused by drug use continues to increase in terms of both premature deaths and the number of healthy years of life lost owing to disability. The greatest harm from drugs is associated with the use of opioids, in particular, with users acquiring HIV or hepatitis C through unsafe injecting practices.

In 2019, 18 million years of healthy life were lost owing to drug use disorders; opioid use accounted for 70 per cent of the total.

Deaths related to drug use disorders have nearly doubled over the past decade, far outstripping any increase in the number of users, suggesting that drug use has become more harmful. In 2019, half a million deaths were attributed to drug use. More than half of the deaths were due to liver cancer, cirrhosis and other chronic liver diseases resulting from hepatitis C, but the increase reflects, in part, the rise in overdose deaths attributed to use of opioids such as fentanyl.

The situation is exacerbated by the continued low availability of evidence-based interventions such as opioid agonist treatment, naloxone for opioid overdose management, and prevention and treatment of hepatitis C. This is especially the case in poorer countries.

More positively, the past decade has seen a decline in deaths attributed to HIV and AIDS among people who use drugs.



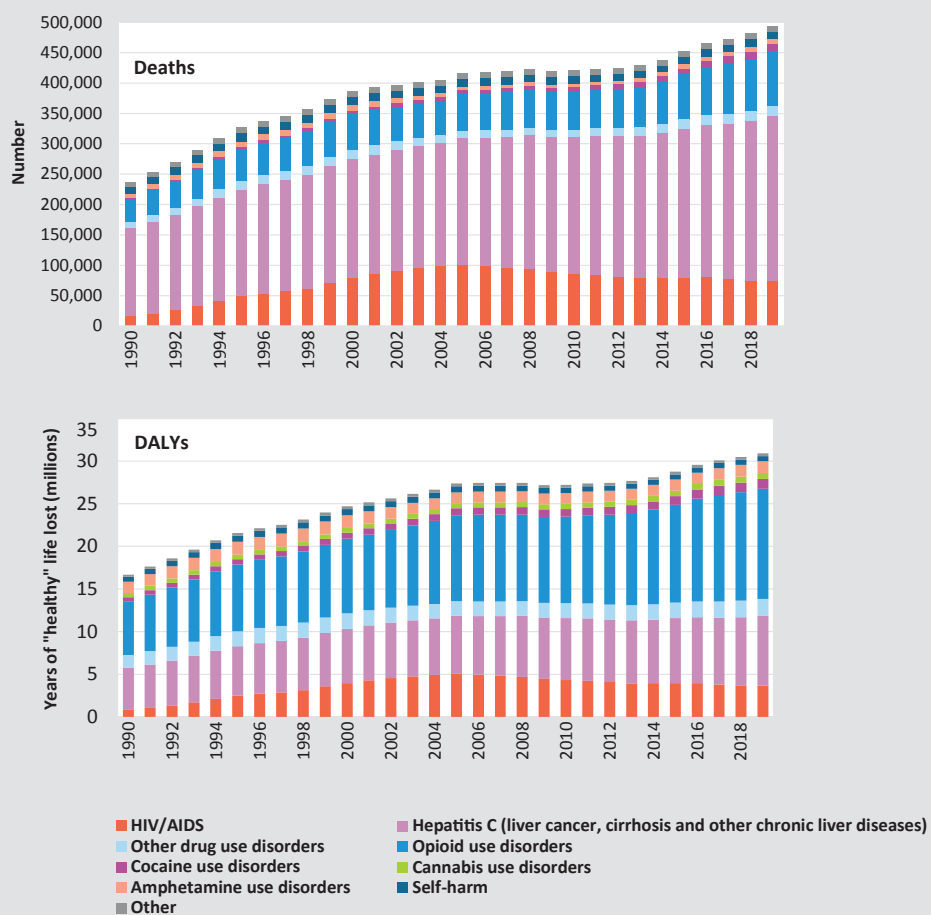
## POLICY IMPLICATIONS

Prevention strategies addressing opioid use, overdose deaths and health issues that may arise from unsafe injecting practices are essential for reducing the burden of disease. Partnerships between first responders, public health institutions and public safety authorities can help advance prevention efforts. Such efforts can increase public awareness, share relevant data to identify at-risk individuals and communities and facilitate referrals to treatment and social services.

Reducing the health burden of opioids requires a significant scale-up of evidence-based interventions to deal with opioid use disorders, especially opioid agonist treatment and prevention of overdose and management of overdose cases. It also requires scaling up interventions for preventing blood-borne infections and widening the availability of hepatitis C treatments for people who use drugs.



## THE NUMBER OF DEATHS AND HEALTHY YEARS LOST OWING TO DISABILITY CAUSED BY DRUG USE CONTINUE TO INCREASE



# BURDEN OF DISEASE REMAINS HIGH AMONG PEOPLE WHO INJECT DRUGS



## FINDINGS AND CONCLUSIONS

There were more than 11 million people who inject drugs globally in 2019, of whom 1.4 million are living with HIV and 5.6 million with hepatitis C. Almost 1.2 million people live with both. Their primary risk of disease comes from sharing contaminated injecting equipment.

There has been a decline in the number of years lost to HIV in terms of premature deaths and disability related to drug use. However, people who inject or use drugs are 29 times more likely to acquire HIV than the general population. They accounted for 1 in 10 new infections in 2019, according to UNAIDS estimates. In recent years, there have been localized outbreaks of HIV in countries across Europe and North America.



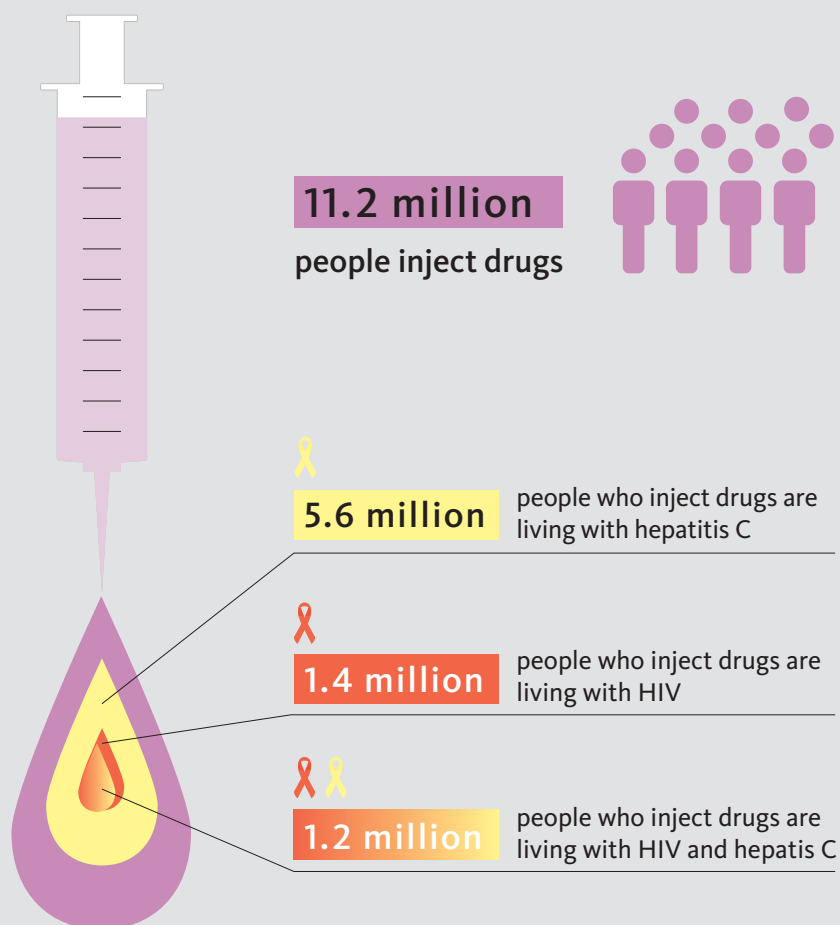
## POLICY IMPLICATIONS

Reducing the negative health impact of drug use requires the full implementation of a comprehensive package of HIV and hepatitis services. This includes the provision of needle-syringe programmes and opioid agonist therapy, the supply of naloxone and the treatment of hepatitis C. All this will have to be done on a scale that can be easily, voluntarily and confidentially accessed by all people who use drugs, including within prisons and other closed settings.

Targeted advocacy among health-care providers and law enforcement can help to reduce the stigma and discrimination felt by people who use drugs. Moreover, gender-specific HIV- and hepatitis C-related services should be provided for women who use drugs.



## MORE THAN 11 MILLION PEOPLE INJECT DRUGS





# ANNEX





**TABLE 1** Annual prevalence of the use of cannabis, opioids and opiates, by region and globally, 2019

Region or subregion	Cannabis						Opioids (opiates and prescription opioids)						Opiates					
	Number (thousands)			Prevalence (percentage)			Number (thousands)			Prevalence (percentage)			Number (thousands)			Prevalence (percentage)		
	Best estimate	Lower	Upper	Best estimate	Lower	Upper	Best estimate	Lower	Upper	Best estimate	Lower	Upper	Best estimate	Lower	Upper	Best estimate	Lower	Upper
<b>Africa</b>	<b>46,950</b>	<b>28,150</b>	<b>64,080</b>	<b>6.41</b>	<b>3.85</b>	<b>8.75</b>	<b>9,050</b>	<b>6,360</b>	<b>12,140</b>	<b>1.24</b>	<b>0.87</b>	<b>1.66</b>	<b>3,580</b>	<b>1,430</b>	<b>7,910</b>	<b>0.49</b>	<b>0.20</b>	<b>1.08</b>
East Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
North Africa	7,850	6,900	9,170	5.26	4.63	6.15	1,580	1,060	2,100	1.06	0.71	1.41	1,580	1,060	2,100	1.06	0.71	1.41
Southern Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
West and Central Africa	26,790	14,610	30,360	9.40	5.12	10.65	-	-	-	-	-	-	520	140	980	0.18	0.05	0.34
<b>Americas</b>	<b>59,130</b>	<b>57,510</b>	<b>62,220</b>	<b>8.77</b>	<b>8.53</b>	<b>9.23</b>	<b>12,580</b>	<b>11,310</b>	<b>13,730</b>	<b>1.86</b>	<b>1.68</b>	<b>2.04</b>	<b>2,550</b>	<b>1,850</b>	<b>3,270</b>	<b>0.38</b>	<b>0.27</b>	<b>0.49</b>
Caribbean	970	500	2,650	3.41	1.77	9.35	-	-	-	-	-	-	-	-	-	-	-	-
Central America	1,000	340	1,750	3.12	1.08	5.48	-	-	-	-	-	-	-	-	-	-	-	-
North America	47,120	46,950	47,290	14.53	14.47	14.58	11,790	10,690	12,630	3.63	3.30	3.89	2,280	1,690	2,800	0.70	0.52	0.86
South America	10,050	9,720	10,530	3.47	3.35	3.63	600	540	680	0.21	0.19	0.23	220	130	310	0.08	0.05	0.11
<b>Asia</b>	<b>61,460</b>	<b>24,340</b>	<b>95,170</b>	<b>2.01</b>	<b>0.80</b>	<b>3.11</b>	<b>35,750</b>	<b>15,250</b>	<b>47,850</b>	<b>1.17</b>	<b>0.50</b>	<b>1.56</b>	<b>21,540</b>	<b>9,170</b>	<b>29,550</b>	<b>0.70</b>	<b>0.30</b>	<b>0.97</b>
Central Asia and Transcaucasia	1,520	450	2,500	2.58	0.77	4.25	570	500	660	0.97	0.85	1.12	570	490	660	0.97	0.83	1.11
East and South-East Asia	19,330	8,710	24,010	1.19	0.54	1.48	3,290	2,420	4,020	0.20	0.15	0.25	3,290	2,420	4,020	0.20	0.15	0.25
South-West Asia/ Near and Middle East	10,780	7,740	12,830	3.34	2.40	3.98	10,310	8,480	12,840	3.19	2.63	3.98	5,690	4,090	8,050	1.76	1.27	2.49
South Asia	29,830	7,440	55,830	2.82	0.70	5.27	21,590	3,850	30,340	2.04	0.36	2.86	11,990	2,170	16,830	1.13	0.21	1.59
<b>Europe</b>	<b>29,610</b>	<b>28,260</b>	<b>31,590</b>	<b>5.45</b>	<b>5.20</b>	<b>5.82</b>	<b>3,610</b>	<b>3,430</b>	<b>3,800</b>	<b>0.66</b>	<b>0.63</b>	<b>0.70</b>	<b>3,080</b>	<b>2,900</b>	<b>3,270</b>	<b>0.57</b>	<b>0.53</b>	<b>0.60</b>
Eastern and South-Eastern Europe	4,630	3,350	6,540	2.07	1.49	2.92	1,730	1,640	1,810	0.77	0.73	0.81	1,490	1,410	1,570	0.67	0.63	0.70
Western and Central Europe	24,980	24,910	25,050	7.83	7.81	7.85	1,880	1,790	1,990	0.59	0.56	0.62	1,590	1,490	1,700	0.50	0.47	0.53
<b>Oceania</b>	<b>3,220</b>	<b>3,170</b>	<b>3,340</b>	<b>12.00</b>	<b>11.78</b>	<b>12.42</b>	<b>660</b>	<b>580</b>	<b>740</b>	<b>2.47</b>	<b>2.17</b>	<b>2.76</b>	<b>30</b>	<b>20</b>	<b>30</b>	<b>0.11</b>	<b>0.08</b>	<b>0.12</b>
Australia and New Zealand	2,360	2,360	2,360	12.14	12.14	12.14	-	-	-	-	-	-	-	-	-	-	-	-
Melanesia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Micronesia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Polynesia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>GLOBAL ESTIMATE</b>	<b>200,380</b>	<b>141,430</b>	<b>256,400</b>	<b>3.98</b>	<b>2.81</b>	<b>5.09</b>	<b>61,650</b>	<b>36,940</b>	<b>78,260</b>	<b>1.22</b>	<b>0.73</b>	<b>1.55</b>	<b>30,780</b>	<b>15,370</b>	<b>44,040</b>	<b>0.61</b>	<b>0.31</b>	<b>0.87</b>

Sources: UNODC estimates based on annual report questionnaire data and other official sources.

Note: Prevalence of people who use drugs is the percentage of the population aged 15–64 years.

TABLE 2 Annual prevalence of the use of cocaine, amphetamine-type stimulants and “ecstasy”, by region and globally, 2019

Region or subregion	Cocaine <sup>a</sup>						Amphetamines <sup>b</sup> and prescription stimulants						"Ecstasy"					
	Number (thousands)			Prevalence (percentage)			Number (thousands)			Prevalence (percentage)			Number (thousands)			Prevalence (percentage)		
	Best estimate	Lower	Upper	Best estimate	Lower	Upper	Best estimate	Lower	Upper	Best estimate	Lower	Upper	Best estimate	Lower	Upper	Best estimate	Lower	Upper
Africa	1,950	520	4,260	0.27	0.07	0.58	2,720	690	5,810	0.38	0.10	0.82	1,890	100	8,270	0.26	0.01	1.13
East Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
North Africa	407	311	483	0.27	0.21	0.32	-	-	-	-	-	-	-	-	-	-	-	-
Southern Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
West and Central Africa	431	71	967	0.15	0.02	0.34	780	50	1,810	0.28	0.02	0.66	-	-	-	-	-	-
Americas	10,360	9,180	11,470	1.54	1.36	1.70	8,710	8,190	9,460	1.30	1.22	1.41	3,620	3,460	3,790	0.54	0.51	0.56
Caribbean	180	80	320	0.63	0.29	1.14	-	-	-	-	-	-	60	30	100	0.23	0.10	0.36
Central America	310	140	520	0.96	0.44	1.62	310	190	440	0.98	0.61	1.41	60	20	110	0.17	0.07	0.33
North America	6,880	6,740	7,030	2.12	2.08	2.17	7,380	7,330	7,420	2.29	2.27	2.30	2,890	2,880	2,890	0.89	0.89	0.89
South America	2,990	2,220	3,610	1.03	0.77	1.24	770	650	900	0.27	0.23	0.31	610	520	690	0.21	0.18	0.24
Asia	2,030	1,620	2,600	0.07	0.05	0.08	12,670	11,920	13,500	0.42	0.39	0.44	9,930	1,880	17,980	0.32	0.06	0.59
Central Asia and Transcaucasia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
East and South-East Asia	780	530	1,030	0.05	0.03	0.06	9,860	9,510	10,280	0.61	0.59	0.64	3,670	1,220	6,120	0.23	0.08	0.38
South-West Asia/ Near and Middle East	160	30	440	0.05	0.01	0.14	640	350	920	0.17	0.11	0.29	2,180	410	3,940	0.67	0.13	1.22
South Asia	1,060	1,060	1,060	0.10	0.10	0.10	1,970	1,960	1,970	0.19	0.19	0.19	-	-	-	-	-	-
Europe	5,000	4,630	5,520	0.92	0.85	1.02	2,510	2,050	3,070	0.46	0.38	0.56	3,550	3,000	4,600	0.65	0.55	0.85
Eastern and South-Eastern Europe	580	220	1,070	0.26	0.10	0.48	-	-	-	-	-	-	780	280	1,780	0.35	0.12	0.79
Western and Central Europe	4,430	4,410	4,450	1.39	1.38	1.39	1,950	1,700	2,300	0.61	0.53	0.72	2,770	2,720	2,820	0.87	0.85	0.89
Oceania	730	700	730	2.70	2.60	2.73	340	310	350	1.27	1.16	1.33	590	550	600	2.18	2.05	2.22
Australia and New Zealand	-	-	-	-	-	-	240	240	250	1.26	1.22	1.30	550	540	560	2.84	2.79	2.90
Melanesia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Micronesia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Polynesia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GLOBAL ESTIMATE	20,060	16,650	24,580	0.40	0.33	0.49	26,950	23,160	32,190	0.54	0.46	0.65	19,570	8,990	35,240	0.39	0.18	0.70

Sources: UNODC estimates based on annual report questionnaire data and other official sources.

Note: Prevalence of people who use drugs is the percentage of the population aged 15–64 years.

**TABLE 3** Estimated number and prevalence (percentage) of people who inject drugs and those living with HIV among this group, by region, 2019

Region or subregion	People who inject drugs							HIV among people who inject drugs				
	Estimated number			Prevalence (%)			Data coverage of population aged 15-64	Estimated number			Prevalence (%) Best estimate	Data coverage of estimated number of people who inject drugs
	Low	Best	High	Low	Best	High		Low	Best	High		
<b>Africa</b>	<b>590,000</b>	<b>950,000</b>	<b>1,760,000</b>	<b>0.08</b>	<b>0.13</b>	<b>0.24</b>	<b>67.9%</b>	<b>52,000</b>	<b>103,000</b>	<b>300,000</b>	<b>10.9</b>	<b>82.9%</b>
East Africa	90,000	260,000	680,000	0.05	0.13	0.35	58.8%	11,000	43,000	124,000	16.3	87.6%
West and Central Africa	280,000	360,000	520,000	0.10	0.13	0.18	77.2%	14,000	17,000	27,000	4.6	88.5%
Southern Africa	100,000	150,000	180,000	0.10	0.14	0.17	62.9%	21,000	32,000	63,000	21.8	59.2%
North Africa	110,000	180,000	390,000	0.08	0.12	0.26	65.6%	6,000	12,000	86,000	6.7	83.8%
<b>America</b>	<b>1,880,000</b>	<b>2,350,000</b>	<b>2,920,000</b>	<b>0.28</b>	<b>0.35</b>	<b>0.43</b>	<b>87.3%</b>	<b>112,000</b>	<b>176,000</b>	<b>269,000</b>	<b>7.5</b>	<b>93.6%</b>
North America	1,590,000	1,800,000	2,020,000	0.49	0.56	0.62	100%	96,000	125,000	158,000	6.9	100%
Caribbean	40,000	90,000	210,000	0.14	0.33	0.76	31.3%	4,000	13,000	26,000	14.0	31.8%
South America	240,000	440,000	660,000	0.08	0.15	0.23	81.9%	12,000	37,000	83,000	8.5	82.9%
Central America	10,000	20,000	30,000	0.04	0.06	0.09	57.7%	300	600	1,400	3.4	32.9%
<b>Asia</b>	<b>3,920,000</b>	<b>5,210,000</b>	<b>6,530,000</b>	<b>0.13</b>	<b>0.17</b>	<b>0.21</b>	<b>95.1%</b>	<b>382,000</b>	<b>588,000</b>	<b>821,000</b>	<b>11.3</b>	<b>98%</b>
Central Asia and Transcaucasia	350,000	370,000	400,000	0.59	0.63	0.68	93.5%	23,000	26,000	31,000	7.0	93.5%
East and South-East Asia	1,970,000	3,030,000	4,000,000	0.12	0.19	0.25	95.1%	135,000	277,000	434,000	9.1	98.7%
South-West Asia	620,000	760,000	910,000	0.30	0.36	0.43	100%	163,000	218,000	275,000	28.6	100%
Near and Middle East	40,000	90,000	260,000	0.03	0.08	0.23	42%	1,800	3,300	10,600	3.8	55.4%
South Asia	950,000	950,000	960,000	0.09	0.09	0.09	100%	59,000	64,000	70,000	6.7	100%
<b>Europe</b>	<b>2,370,000</b>	<b>2,570,000</b>	<b>2,830,000</b>	<b>0.44</b>	<b>0.47</b>	<b>0.52</b>	<b>90%</b>	<b>514,000</b>	<b>537,000</b>	<b>573,000</b>	<b>20.9</b>	<b>100%</b>
Eastern Europe	1,690,000	1,710,000	1,740,000	1.24	1.26	1.27	100%	437,000	447,000	457,000	26.1	100%
South-Eastern Europe	80,000	90,000	130,000	0.09	0.11	0.15	100%	4,900	5,800	7,700	6.2	100%
Western and Central Europe	600,000	770,000	960,000	0.19	0.24	0.30	83%	73,000	84,000	108,000	11.0	99.9%
<b>Oceania</b>	<b>100,000</b>	<b>100,000</b>	<b>110,000</b>	<b>0.37</b>	<b>0.38</b>	<b>0.41</b>	<b>72.3%</b>	<b>1,400</b>	<b>1,800</b>	<b>2,000</b>	<b>1.8</b>	<b>72.3%</b>
<b>Global</b>	<b>8,860,000</b>	<b>11,180,000</b>	<b>14,150,000</b>	<b>0.18</b>	<b>0.22</b>	<b>0.28</b>	<b>89.4%</b>	<b>1,060,000</b>	<b>1,410,000</b>	<b>1,970,000</b>	<b>12.6</b>	<b>96%</b>

Sources: Responses to the annual report questionnaire; progress reports of the Joint United Nations Programme on HIV/AIDS (UNAIDS) on the global AIDS response (various years); the former Reference Group to the United Nations on HIV and Injecting Drug Use; published peer-reviewed articles; and government reports.

Note: Prevalence of people who inject drugs is the percentage of the population aged 15–64 years.

**TABLE 4 Illicit cultivation of opium poppy, 2009–2020 (hectares)**

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>SOUTH-WEST ASIA</b>												
Afghanistan (best estimate)	123,000	123,000	131,000	154,000	209,000	224,000	183,000	201,000	328,000	263,000	163,000	224,000
lower bound <sup>a</sup>	102,000	104,000	109,000	125,000	173,000	196,000	163,000	182,000	301,000	242,000	149,000	202,000
upper bound <sup>a</sup>	137,000	145,000	155,000	189,000	238,000	247,000	202,000	221,000	355,000	283,000	178,000	246,000
<b>SOUTH-EAST ASIA</b>												
Lao People's Democratic Republic (best estimate) <sup>b, g</sup>	1,900	3,000	4,100	6,800	3,900	6,200	5,700	5,395	5,327	4,925	4,624	..
lower bound <sup>a</sup>	1,100	1,900	2,500	3,100	1,900	3,500	3,900					
upper bound <sup>a</sup>	2,700	4,000	6,000	11,500	5,800	9,000	7,600					
Myanmar (best estimate) <sup>b, c</sup>	31,700	38,100	43,600	51,000	57,800	57,600	55,500	..	41,000	37,300	33,100	29,500
lower bound <sup>a</sup>	20,500	17,300	29,700	38,249	45,710	41,400	42,800		30,200	29,700	25,800	21,000
upper bound <sup>a</sup>	42,800	58,100	59,600	64,357	69,918	87,300	69,600		51,900	47,200	42,800	50,400
<b>SOUTH AND CENTRAL AMERICA</b>												
Colombia (best estimate) <sup>h</sup>	356	341	338	313	298	387	595	462	282	663	..	..
Mexico (best estimate) <sup>d, e, f</sup>	19,500	14,000	12,000	10,500	11,000	17,000	26,100	25,200	30,600	28,000	21,500	..
lower bound <sup>a</sup>							21,800	20,400	22,800	21,200	15,500	
upper bound <sup>a</sup>							30,400	30,000	38,400	34,800	27,500	
<b>OTHER</b>												
Other countries <sup>i</sup>	9,479	12,221	16,390	12,282	13,293	11,585	8,549	54,641	8,792	11,815	14,656	40,855
<b>TOTAL (best estimate)</b>	<b>185,935</b>	<b>190,662</b>	<b>207,428</b>	<b>234,895</b>	<b>295,291</b>	<b>316,772</b>	<b>279,444</b>	<b>286,698</b>	<b>414,001</b>	<b>345,703</b>	<b>236,880</b>	<b>294,355</b>
lower bound	152,935	149,762	169,928	189,444	245,201	269,872	240,644	257,996	368,401	310,021	211,619	259,894
upper bound	211,835	233,662	249,328	287,952	338,309	372,272	318,744	333,396	459,701	382,121	247,587	323,187
<b>TOTAL (best estimate, rounded)</b>	<b>185,930</b>	<b>190,660</b>	<b>207,430</b>	<b>234,900</b>	<b>295,290</b>	<b>316,770</b>	<b>279,440</b>	<b>286,700</b>	<b>414,000</b>	<b>345,700</b>	<b>236,880</b>	<b>294,350</b>

Sources: Afghanistan: Until 2018, Afghanistan Opium Surveys were conducted by the Ministry of Counter-Narcotics (MCN) of Afghanistan and the United Nations Office on Drugs and Crime (UNODC). Data for 2019–2020 was obtained from the UNODC Illicit Crop Monitoring Programme.

Lao People's Democratic Republic: Up till 2015, national illicit crop monitoring system supported by the United Nations Office on Drugs and Crime (UNODC). Data from 2016 onwards from Lao National Commission for Drug Control and Supervision.

Myanmar: national illicit crop monitoring system supported by the United Nations Office on Drugs and Crime (UNODC).

Colombia: Government of Colombia.

Mexico: up to 2014, estimates derived from surveys by the Government of the United States of America (international narcotics control strategy reports); for 2015 onwards, joint Mexico/UNODC project entitled "Monitoring of the illicit cultivation on Mexican territory".

Note: Two dots indicate that data were unavailable. Information on estimation methodologies and definitions can be found in the online methodology section of the World Drug Report 2021.

a) Bound of the statistically derived confidence interval.

b) May include areas that were eradicated after the date of the area survey.

c) In 2020, the opium poppy cultivation survey covered Shan and Kachin States. 46 sample locations were available in Shan and Kachin States (compared to 84 locations in 2019), which increased uncertainty around area and production estimates. Estimates for 2014, 2015, 2018 included area estimates for Kayah and Chin states. In the absence of information on Kayah and Chin, the 2019, 2020 national area estimate uses latest available cultivation estimates (2018) for Chin and Kayah states. National estimates for 2014, 2015, 2018, 2019, 2020 are therefore not directly comparable with other years.

d) Up to 2014, the estimates for Mexico are sourced from the Department of State of the United States. The Government of Mexico does not validate the estimates provided by the United States as they are not part of its official figures and it does not have information on the methodology used to calculate them.

e) The figures for 2015, as published in the World Drug Report 2016 (United Nations publication, Sales

No. E.16.XI.7), have been revised owing to a statistical adjustment processed by UNODC. The 2015 figures refer to the period July 2014–June 2015 and are not comparable with subsequent years, due to the updates in the methodology implemented from the 2015–2016 period onwards.

f) The figures for 2016, 2017, 2018 and 2019 are based on the estimation periods July 2015–June 2016, July 2016–June 2017 and July 2017–June 2018, July 2018–June 2019 respectively.

g) Data for 2016 onwards are not comparable to prior years.

h) Data for 2018 from U.S. State Department, International Narcotics Control Strategy Report 2020.

i) Includes other countries with evidence of cultivation or production of opium poppy (average of less than 10 tons of opium per year since 2015) and estimates for countries with indirect evidence of illicit cultivation (eradication of opium poppy) but no direct measurement.

In addition, for 2016, 2018 and 2019 best estimates for countries for which data are not available (Myanmar for 2016, Colombia for 2019 and 2020, Lao People's Democratic Republic 2020 and Mexico 2020) are included in this category.

**TABLE 5** Potential production of oven-dry opium, 2009–2020 (tons)

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>SOUTH-WEST ASIA</b>												
Afghanistan (best estimate) <sup>j</sup>	4,000	3,600	5,800	3,700	5,500	6,400	3,300	4,800	9,000	6,400	6,400	6,300
lower bound <sup>a</sup>		3,000	4,800	2,800	4,500	5,100	2,700	4,000	8,000	5,600	5,600	5,400
upper bound <sup>a</sup>		4,200	6,800	4,200	6,500	7,800	3,900	5,600	10,000	7,200	7,100	7,200
<b>SOUTH-EAST ASIA</b>												
Lao People's Democratic Republic (best estimate) <sup>b, f</sup>	11	18	25	41	23	92	..	48	48	44	41	..
lower bound <sup>g</sup>	7	11	15	18	11	51	84					
upper bound <sup>g</sup>	16	24	36	69	35	133	176					
Myanmar (best estimate) <sup>b, h</sup>	330	580	610	690	870	670	647 <sup>h</sup>	..	550	520	508	405
lower bound	213	350	420	520	630	481	500		395	410	380	289
upper bound	445	820	830	870	1,100	916	820		706	664	672	685
<b>SOUTH AND CENTRAL AMERICA</b>												
Colombia (best estimate) <sup>k</sup>	9	8	8	8	11	12	17	13	7	18	..	..
Mexico (best estimate) <sup>c, e, i</sup>	425	300	250	220	225	360	419	404	492	450	440	..
lower bound <sup>a</sup>							265	251	288	267	286	
upper bound <sup>a</sup>							572	557	695	633	595	
<b>Other countries (best estimate) <sup>d</sup></b>												
	<b>178</b>	<b>224</b>	<b>290</b>	<b>172</b>	<b>182</b>	<b>201</b>	<b>147</b>	<b>711</b>	<b>143</b>	<b>168</b>	<b>227</b>	<b>708</b>
<b>TOTAL (best estimate)</b>	<b>4,953</b>	<b>4,730</b>	<b>6,983</b>	<b>4,831</b>	<b>6,810</b>	<b>7,735</b>	<b>4,659</b>	<b>5,976</b>	<b>10,239</b>	<b>7,600</b>	<b>7,616</b>	<b>7,413</b>
lower bound (published)		3,894	5,783	3,738	5,558	6,205	3,713	4,927	8,881	6,507	6,670	6,467
upper bound		5,576	8,214	5,539	8,052	9,423	5,632	7,153	11,599	8,727	8,462	8,259
<b>TOTAL best estimate (rounded)</b>	<b>4,950</b>	<b>4,730</b>	<b>6,980</b>	<b>4,830</b>	<b>6,810</b>	<b>7,740</b>	<b>4,660</b>	<b>5,980</b>	<b>10,240</b>	<b>7,600</b>	<b>7,620</b>	<b>7,410</b>

Sources: Afghanistan: Until 2018, Afghanistan Opium Surveys were conducted by the Ministry of Counter-Narcotics (MCN) of Afghanistan and the United Nations Office on Drugs and Crime (UNODC). Data for 2019 was obtained from the UNODC Illicit Crop Monitoring Programme.

Lao People's Democratic Republic and Myanmar: national illicit crop monitoring system supported by the United Nations Office on Drugs and Crime (UNODC).

Colombia: National illicit crop monitoring system supported by UNODC. Since 2008, production was calculated based on updated regional yield figures and conversion ratios from the Department of State and the Drug Enforcement Administration of the United States of America.

Mexico: Up till 2014, estimates derived from surveys by the United States Government; from 2015 onwards national illicit crop monitoring system supported by UNODC.

Note: Two dots indicate that data were unavailable. Information on estimation methodologies and definitions can be found in the online methodology section of the World Drug Report 2021.

a) Bound of the statistically derived confidence interval.

b) Based on cultivation figures which may include areas eradicated after the date of the area survey.

c) Up to 2014, the estimates are sourced from the Department of State of the United States. The Government of Mexico does not validate the estimates provided by the United States as they are not part of its official figures and it does not have information on the methodology used to calculate them.

d) Includes other countries with evidence of cultivation or production of opium poppy (average of less than 10 tons of opium per year since 2015) and estimates for countries with indirect evidence of illicit cultivation (eradication of opium poppy) but no direct measurement.

In addition, for 2016, 2018 and 2019 best estimates for countries for which data are not available (Myanmar for 2016, Colombia for 2019 and 2020 and Lao People's Democratic Republic 2020, Mexico 2020) are included in this category.

e) The figures from 2015 on have been updated with newly available data. The joint Mexico/UNODC project "Monitoring of the illicit cultivation on Mexican territory" collected yield data for the first time in the 2017/2018 period. The production figures presented are based on: (1) annual estimates of area under cultivation, established by the joint project of the Government of Mexico and UNODC; (2) yield data collected in an initial survey in the 2017/2018 period. UNODC and Mexico are jointly working on continuously expanding the scope and quality of yield data collected. For methodological reasons, the figures shown for 2015–2018 are not comparable with the figures over the period 1998–2014.

f) Production estimates for the period 2016–2019 are based on cultivation estimates for the period 2016–2019 and average yields per ha reported over the 2012–2014 period.

g) Bound of the statistically derived confidence interval, with the exception of 2015. The figures for 2015 represent independently derived upper and lower estimates; the midpoint was used for the calculation of the global total.

h) Estimates for 2014, 2015, 2018 include estimates for Kayah and Chin states. In the absence of information on Kayah and Chin, the 2019 national potential production estimate uses latest available (2018) cultivation estimates for Kayah and Chin states and the 2019 weighted national average yield (15.4 kg/ha). National estimates for 2014, 2015, 2018 and 2019 are therefore not directly comparable with other years.

i) The figures for 2015, 2016, 2017, 2018, and 2019 are based on the estimation periods July 2014–June 2015, July 2015–June 2016, July 2016–June 2017, July 2017–June 2018, and July 2018–June 2019 respectively.

j) Data on the potential opium production for 2019 and 2020 was obtained from the UNODC Illicit Crop Monitoring Programme. The same methodology was used as in previous years for yield measurement and estimation of potential opium production. The results for the year 2019 were not validated by the Government of Afghanistan and are not recognized by the Government as its official estimate.

k) Production estimates for 2018 based on cultivation estimates by the U.S. State Department International Narcotics Control Strategy Report 2020 and average yields reported for the years 2015–2017.

**TABLE 6** Global manufacture of heroin from global illicit opium production, 2009–2020 (tons)

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>Total potential opium production</b>	<b>4,953</b>	<b>4,730</b>	<b>6,983</b>	<b>4,831</b>	<b>6,810</b>	<b>7,735</b>	<b>4,659</b>	<b>5,976</b>	<b>10,270</b>	<b>7,618</b>	<b>7,616</b>	<b>7,413</b>
Potential opium not processed into heroin	1,680	1,728	3,400	1,850	2,600	2,450	1,360	2,510	1,100–1,400	1,225–1,525	1,180–1,480	1,177–1,477
Potential opium processed into heroin	3,273	3,002	3,583	2,981	4,210	5,285	3,299	3,466	8,870–9,170	6,093–6,393	6,136–6,436	5,936–6,236
<b>Total potential heroin manufacture</b>	<b>427</b>	<b>383</b>	<b>467</b>	<b>377</b>	<b>555</b>	<b>544</b>	<b>319</b>	<b>368</b>	<b>677–1,027</b>	<b>468–718</b>	<b>474–724</b>	<b>454–694</b>

Notes: The calculation shows the potential amount of heroin that could have been manufactured out of the opium produced in a given year; it does not take into account changes in opium inventories, which may add to or reduce the amount of heroin entering the market in that year. Afghanistan and Myanmar are the only countries for which the proportion of potential opium production not converted into heroin within the country is estimated. For Myanmar, these estimates were available only for 2018, 2019 and 2020. For all other countries, for the purposes of this table, it is assumed that all opium produced is converted into heroin.

The amount of heroin produced from Afghan opium is calculated using two parameters that may change: (a) the amounts of opium consumed as raw opium in the region; and (b) the conversion ratio into heroin. The first parameter's estimate is based on consumption data in Afghanistan and neighbouring countries. For the second parameter, from 2005 to 2013, a conversion ratio of opium to morphine/heroin of 7:1 was used, based on interviews conducted with Afghan morphine/heroin "cooks"; on an actual heroin production exercise conducted by two (illiterate) Afghan heroin "cooks", documented by the German Bundeskriminalamt in Afghanistan in 2003 (published in Bulletin on Narcotics, vol. LVII, Nos. 1 and 2, 2005, pp. 11–31), and United Nations Office on Drugs and Crime (UNODC) studies on the morphine content of Afghan opium (12.3 per cent over the period 2010–2012, down from 15 per cent over the period 2000–2003). Starting from 2014, a different approach to the conversion was adopted, reflecting updated information on morphine content and a different method for taking purity into account. The revised approach uses a ratio of 18.5 (range: 17.5–19.6) kg of opium for 1 kg of 100 per cent pure heroin base (see Afghanistan Opium Survey 2014, UNODC, November 2014). In addition, the conversion into export-quality heroin assumes purity to be between 50 and 70 per cent. For more details, see "Afghanistan Opium Survey 2017 – Challenges to sustainable development, peace and security" (UNODC, May 2018).

The amount of heroin produced in Myanmar in 2018, 2019 and 2020 was calculated by subtracting the estimated unprocessed opium for consumption from the total opium production and using a conversion factor of 10:1. The unprocessed opium in Myanmar was based on the total unprocessed opium in East Asia and the relative cultivation levels of Lao PDR and Myanmar (see Transnational Organized Crime in East Asia and the Pacific – A Threat Assessment, UNODC, 2013 and Transnational Organized Crime in Southeast Asia: Evolution, Growth and Impact 2019, UNODC, 2019). For further information, please refer to the Methodology chapter (section 4.3) of the Myanmar Opium Survey 2018 (UNODC, January 2019) and the Myanmar Opium Survey 2019 (UNODC, February 2020).

For countries other than Afghanistan, a "traditional" conversion ratio of opium to heroin of 10:1 is used. The ratios will be adjusted when improved information becomes available. Figures in italics are preliminary and may be revised when updated information becomes available.

**TABLE 7** Global illicit cultivation of coca bush, 2009–2019 (hectares)

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Bolivia (Plurinational State of)	30,900	31,000	27,200	25,300	23,000	20,400	20,200	23,100	24,500	23,100	25,500
Colombia <sup>a</sup>	73,000	62,000	64,000	48,000	48,000	69,000	96,000	146,000	171,000	169,000	154,000
Peru <sup>b</sup>	59,900	61,200	64,400								
Peru <sup>c</sup>			62,500	60,400	49,800	42,900	40,300	43,900	49,900	54,100	54,700
<b>Total</b>	<b>163,800</b>	<b>154,200</b>	<b>155,600<sup>d</sup></b>	<b>133,700</b>	<b>120,800</b>	<b>132,300</b>	<b>156,500</b>	<b>213,000</b>	<b>245,400</b>	<b>246,200</b>	<b>234,200</b>

Sources: Plurinational State of Bolivia: national illicit crop monitoring system supported by the United Nations Office on Drugs and Crime (UNODC). Colombia: national illicit crop monitoring system supported by UNODC. Peru: national illicit crop monitoring system supported by UNODC.

Note: Different area concepts and their effect on comparability were presented in the World Drug Report 2012 (United Nations publication, Sales No. E.12.XI.1) (p. 41–42). Efforts to improve the comparability of estimates between countries continue; since 2011 the net area under coca bush cultivation on the reference date of 31 December was estimated for Peru, in addition to Colombia. The estimate presented for the Plurinational State of Bolivia represents the area under coca cultivation as interpreted on satellite imagery.

a) Net area on 31 December.

b) Figures represent the area under coca cultivation as interpreted on satellite imagery (without deductions for subsequent eradication).

c) Net area on 31 December, deducting fields eradicated after satellite imagery was taken.

d) The global coca cultivation figure was calculated with the "area as interpreted on satellite imagery" for Peru in 2011.

**TABLE 8** Reported eradication of coca bush, 2009–2019

	Method of eradication	Unit	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Bolivia (Plurinational State of)	manual	hectare	6,341	8,200	10,509	11,044	11,407	11,144	11,020	6,577	7,237	11,174	9,205
Colombia	manual	hectare	60,565	43,804	35,201	30,456	22,121	11,703	13,473	17,642	52,001	59,978	94,606
	spraying	hectare	104,772	101,940	103,302	100,549	47,052	55,532	37,199	0	0	0	0
Peru	manual	hectare	10,025	12,033	10,290	14,171	23,785	31,205	35,868	30,150	23,025	25,107	25,526
Ecuador	manual	hectare	6	3	14	..	..	..	..	..	..	..	..
	manual	plants	57,765	3,870	55,030	122,656	41,996	15,874	45,266	20,896	10,100	3,818	..

Source: United Nations Office on Drugs and Crime annual report questionnaire and government reports.

Note: The totals for Bolivia (Plurinational State of) and Peru include voluntary and forced eradication. Reported eradication refers to the sum of all areas eradicated in a year, including repeated eradication of the same fields. Two dots indicate that data are not available.

**TABLE 9** Potential manufacture of 100 per cent pure cocaine, 2009–2019 (tons)

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Bolivia (Plurinational State of) <sup>a</sup>	..	..	..	..	..	..	..	..	..	..	..
Colombia <sup>b, c, d</sup>	488	424	384	333	290	368	499	810	1,058	1,120	1,137
Peru <sup>a</sup>	..	..	..	..	..	..	..	..	..	..	..
<b>Total <sup>b, c, d</sup></b>	<b>1,188</b>	<b>1,134</b>	<b>1,090</b>	<b>997</b>	<b>902</b>	<b>869</b>	<b>977</b>	<b>1,335</b>	<b>1,647</b>	<b>1,723</b>	<b>1,784</b>

Sources: Plurinational State of Bolivia: calculations based on coca leaf yield surveys by the United Nations Office on Drugs and Crime (UNODC) (Yungas de La Paz) and scientific studies by the Drug Enforcement Administration of the United States of America (Chapare). Colombia: UNODC/Government of Colombia. Peru: calculations based on coca leaf to cocaine conversion ratio from scientific studies by the Drug Enforcement Administration.

Notes: Figures in italics are subject to revision. Two dots indicate that data are not available. Information on estimation methodologies and definitions can be found in the online methodology section of the World Drug Report 2021.

a) Owing to a lack of updated conversion factors in Bolivia (Plurinational State of) and Peru, no final estimates of the level of cocaine production can be provided. Detailed information on the ongoing revision of conversion ratios and cocaine laboratory efficiency is available in the World Drug Report 2010 (United Nations publication, Sales No. E.10.XI.13), p. 249.

b) Values for Colombia for 2014–17 have been revised, using an improved methodology, to take into account the participation of new actors in the processing chain from coca leaf to cocaine. The same methodology was used for 2018. Thus, the values for 2014–18, and hence the global total for the same years, may not be directly comparable to earlier years.

c) Conversion of areas under coca cultivation into coca leaf and then into cocaine hydrochloride, taking yields, amounts of coca leaf used for licit purposes and cocaine laboratory efficiency into account. Current global aggregates are based on “new” conversion ratios representing the most recent data available to UNODC. See World Drug Report 2010 (United Nations publication, Sales No. E.10.XI.13, p. 249) for a discussion of “new” and “old” conversion factors and detailed information on the ongoing revision of conversion ratios and cocaine laboratory efficiency.

d) With respect to data published in the World Drug Report 2016 (United Nations publication, Sales No. E.16.XI.7), the following amendments have been made:

(i) totals for 2009–2012 have been revised to rectify minor inaccuracies in data processing.

TABLE 10 Cannabis cultivation, production and eradication, latest year available from the period 2013–2019

Year	Country / Territory	Product	Outdoors/ indoors	Area cultivated (ha)	Area eradicated (ha)	Harvestable area (ha)	Production (tons)	Plants eradicated	Sites eradicated
2016	Albania	herb	outdoors					2,536,288	5,205
2017	Albania	herb	Indoors					7,766	
2017	Albania	herb	outdoors					66,927	500
2017	Albania	herb	outdoors					33,177	379
2018	Albania	herb	Indoors					2,716	
2014	Algeria	resin	outdoors					2,522	
2016	Armenia	herb	outdoors	0.50 <sup>a</sup>	0.50	0.00		757	20
2017	Armenia	herb	outdoors	0.50 <sup>a</sup>	0.50	0.00		2,547	21
2018	Armenia	herb	Indoors					1,025	36
2016	Australia	herb	indoors					31,266	408
2016	Australia	herb	outdoors					22,257	1,021
2017	Australia	herb	indoors					78,310	433
2017	Australia	herb	outdoors	1.00 <sup>a</sup>	1.00	0.00		31,431	948
2018	Australia	herb	indoors					38,492	542
2018	Australia	herb	outdoors	0.80 <sup>a</sup>	0.80	0.00		19,981	1,120
2019	Australia	herb	indoors		1.72			50,837	86
2019	Australia	herb	outdoors	0.04 <sup>a</sup>	0.04	0.00		4,755	1
2015	Austria	herb	outdoors	3.00 <sup>a</sup>	3.00	0.00			
2013	Azerbaijan	herb	outdoors	23.95 <sup>a</sup>	23.95	0.00	263.96	8,469	151
2014	Azerbaijan	herb	outdoors	17.50 <sup>a</sup>	17.50	0.00		14,889	195
2017	Azerbaijan	herb	outdoors	0.25 <sup>a</sup>		0.25		336,791	
2015	Bahamas	herb	outdoors					17,270	
2013	Bangladesh	herb	outdoors					35,012	
2014	Bangladesh	herb	outdoors					35,988	
2015	Bangladesh	herb	outdoors					39,967	
2016	Bangladesh	herb	outdoors					47,104	
2017	Bangladesh	herb	outdoors					69,989	
2016	Belarus	herb	indoors						28
2016	Belarus	herb	oudoors		123.80				1,945
2017	Belarus	herb	indoors						32
2017	Belarus	herb	oudoors		125.90				2,283
2018	Belarus	herb	indoors						42
2018	Belarus	herb	oudoors		106.30				2,469
2019	Belarus	herb	indoors						28
2019	Belarus	herb	oudoors		117.60				2,182
2015	Belgium	herb	indoors					345,518	1,164
2015	Belgium	herb	outdoors					4,885	93
2016	Belgium	herb	indoors					327,216	1,012
2016	Belgium	herb	outdoors					1,395	34
2017	Belgium	herb	indoors					415,728	1,175
2017	Belgium	herb	outdoors					848	59
2018	Belgium	herb	indoors					421,326	944
2018	Belgium	herb	outdoors					935	62
2015	Belize	herb	outdoors					50,897	
2017	Bhutan	herb	outdoors	1.00 <sup>a</sup>	1.00	0.00		100,000	12
2016	Bolivia (Plurinational State of)	herb	outdoors		14.60				35
2017	Bolivia (Plurinational State of)	herb	outdoors		14.00				52
2018	Bolivia (Plurinational State of)	herb	outdoors		13.36				52
2019	Bolivia (Plurinational State of)	herb	outdoors		22.50				50

Year	Country / Territory	Product	Outdoors/ indoors	Area cultivated (ha)	Area eradicated (ha)	Harvestable area (ha)	Production (tons)	Plants eradicated	Sites eradicated
2016	Bosnia and Herzegovina	herb	indoors		39.00				
2016	Bosnia and Herzegovina	herb	outdoors		1,680.00				
2017	Bosnia and Herzegovina	herb	indoors					1	1
2017	Bosnia and Herzegovina	herb	outdoors	0.02 <sup>a</sup>	0.02	0.00		539	53
2018	Bosnia and Herzegovina	herb	indoors	0.02 <sup>a</sup>	0.02	0.00			6
2018	Bosnia and Herzegovina	herb	outdoors	0.02 <sup>a</sup>	0.02	0.00		1,580	12
2019	Bosnia and Herzegovina	herb	outdoors	30.00 <sup>a</sup>					
2014	Brazil	herb	outdoors		44.01			1,364,316	
2017	Brazil	herb	outdoors		117.51			1,910,451	604
2018	Brazil	herb	outdoors		68.31			968,145	
2019	Brazil	herb	outdoors		74.53		475.70	1,585,759	651
2015	Bulgaria	herb	indoors					323	
2015	Bulgaria	herb	outdoors				37.77	9,488	
2017	Central African Republic	herb	outdoors	130.00	60.00	55	10.00	250,000	22
2016	Chile	herb	indoors					26,988	2,740
2016	Chile	herb	outdoors					58,950	264
2017	Chile	herb	indoors					50,414	2,408
2017	Chile	herb	outdoors					194,694	202
2018	Chile	herb	indoors					66,007	2,357
2018	Chile	herb	outdoors					183,185	318
2019	Chile	herb	indoors					31,711	1,856
2019	Chile	herb	outdoors					199,523	212
2016	China	herb	outdoors		9.80			1,390,000	
2018	China	herb	outdoors					710	
2016	China, Hong Kong SAR	herb	indoors					329	1
2019	China, Hong Kong SAR	herb	indoors					1,693	
2016	Colombia	herb	outdoors		135.00				
2017	Colombia	herb	outdoors		173.71				
2018	Colombia	herb	outdoors		59.66				
2019	Colombia	herb	outdoors		39.34				
2016	Costa Rica	herb	indoors					678.00	5
2016	Costa Rica	herb	outdoors		17.59			2,122,244	201
2017	Costa Rica	herb	indoors						2
2017	Costa Rica	herb	outdoors			14.30			215
2018	Costa Rica	herb	indoors						4
2018	Costa Rica	herb	outdoors	11.41	11.41			1,346,273	208
2019	Costa Rica	herb	indoors						2
2019	Costa Rica	herb	outdoors	11.56	11.56			1,419,495	224
2016	Côte d'Ivoire	herb	outdoors					5	
2017	Côte d'Ivoire	herb	outdoors		0.25				1
2018	Côte d'Ivoire	herb	outdoors					104	1
2019	Côte d'Ivoire	herb	outdoors					4,848	
2016	Czechia	herb	indoors					53,549	229
2016	Czechia	herb	outdoors					4,111	
2017	Czechia	herb	indoors					50,925	305
2017	Czechia	herb	outdoors					3,467	
2018	Czechia	herb	outdoors					6,581	
2019	Czechia	herb	indoors					26,925	258
2019	Czechia	herb	outdoors					5,526	
2015	Denmark	herb	indoors/outdoors					14,560	97
2016	Denmark	herb	indoors/outdoors					13,217	105

Year	Country / Territory	Product	Outdoors/ indoors	Area cultivated (ha)	Area eradicated (ha)	Harvestable area (ha)	Production (tons)	Plants eradicated	Sites eradicated
2018	Denmark	herb	indoors/outdoors					14,171	99
2019	Denmark	herb	indoors/outdoors					14,338	79
2014	Dominican Republic	herb	outdoors	6.00 <sup>a</sup>	6.00	0.00	0.21	111	8
2017	Denmark	herb	indoors/outdoors					34,801	65
2016	Ecuador	herb	outdoors					224	34
2017	Ecuador	herb	outdoors					397	10
2018	Ecuador	herb	indoors					127	30
2018	Ecuador	herb	outdoors					13,891	4
2015	Egypt	herb/resin	outdoors		140.00				
2017	Egypt	herb/resin	outdoors		126.00				
2016	El Salvador	herb	outdoors			1.00		227	25
2019	Estonia	herb	indoors					979	27
2019	Estonia	herb	outdoors					66	2
2018	Eswatini	herb	outdoors	1,500.00	1,069.50	430.50		3,000,000	210
2018	France	herb	outdoors					138,561	
2014	France	herb	outdoors					158,592	837
2017	Georgia	herb	indoors		0.01			186	91
2017	Georgia	herb	outdoors	0.02 <sup>a</sup>	0.02	0.00		93	19
2017	Georgia	herb	indoors		0.01			186	91
2017	Georgia	herb	outdoors	0.02	0.02	0.00		93	19
2018	Georgia	herb	indoors		0.05			927	443
2018	Georgia	herb	outdoors	0.10	0.10	0.00		406	98
2015	Germany	herb	indoors					135,925	786
2015	Germany	herb	outdoors					9,136	127
2016	Germany	herb	indoors					79,599	712
2016	Germany	herb	outdoors					18,414	108
2017	Germany	herb	indoors					85,226	573
2017	Germany	herb	outdoors						95
2016	Greece	herb	indoors					16,554	
2016	Greece	herb	oudoors					39,151	
2017	Greece	herb	indoors					19,498	
2017	Greece	herb	oudoors					27,409	
2018	Greece	herb	indoors					6,913	
2018	Greece	herb	oudoors					43,684	
2016	Guatemala	herb	outdoors		9.00			3,138,298	427
2017	Guatemala	herb	outdoors	3.50 <sup>a</sup>	3.81		1.61	6,033,345	150
2018	Guatemala	herb	outdoors	129.00 <sup>a</sup>	129.00	0.00		5,189,422	368
2019	Guatemala	herb	outdoors	150.00 <sup>a</sup>	84.26	65.74		3,447,979	127
2015	Guyana	herb	outdoors	20.00	9.40	10.60	1,000.00	419,700	19
2016	Honduras	herb	indoors					7	2
2016	Honduras	herb	oudoors					24,253	19
2017	Honduras	herb	oudoors	59.58 <sup>a</sup>	59.59	0.00			
2018	Honduras	herb	oudoors					720,426	67
2019	Honduras	herb	oudoors					228,542	46
2016	Hungary	herb	indoors					5,000	3
2016	Hungary	herb	outdoors					2,000	20
2013	Iceland	herb	indoors					6,652	323
2016	India	herb	outdoors		3,414.74				
2017	India	herb	outdoors		3,445.90			6,687,376	
2018	India	herb	outdoors		3,430.12				
2019	India	herb	outdoors		9,023.27				

Year	Country / Territory	Product	Outdoors/ indoors	Area cultivated (ha)	Area eradicated (ha)	Harvestable area (ha)	Production (tons)	Plants eradicated	Sites eradicated
2016	Indonesia	herb	outdoors	482.00 <sup>a</sup>	482.00	0.00			
2017	Indonesia	herb	outdoors	89.00 <sup>a</sup>	89.00	0.00		738,020	14
2018	Indonesia	herb	outdoors	76.23 <sup>a</sup>	76.23	0.00		1,455,390	13
2019	Indonesia	herb	outdoors	103.20 <sup>a</sup>	84.50	18.70	169.00	845,000	25
2018	Iran (Islamic Republic of)	herb	indoors		0.04				
2016	Ireland	herb	indoors					7,273	
2017	Ireland	herb	indoors					9,046	50
2018	Ireland	herb	indoors					7,186	
2019	Ireland	herb	indoors					8,576	
2014	Italy	herb	indoors					51,534	639
2014	Italy	herb	outdoors					70,125	1,134
2017	Italy	herb	indoors					56,125	1,161
2017	Italy	herb	outdoors					209,510	401
2019	Italy	herb	indoors					68,266	
2019	Italy	herb	outdoors					155,275	
2016	Kazakhstan	herb	outdoors	18.00 <sup>a</sup>	18.00	0.00		170,000	202
2017	Kazakhstan	herb	outdoors	12.30 <sup>a</sup>	12.30	0.00		930,774	91
2016	Kenya	herb	outdoors	12.00				8,747	46
2017	Kenya	herb	outdoors		0.10			4,662	
2018	Kenya	herb	outdoors		0.10			517	
2019	Kenya	herb	outdoors	0.25 <sup>a</sup>	0.25	0.00		130	1
2015	Kyrgyzstan	herb	outdoors	5,014.00		5,014.00			
2018	Kyrgyzstan	herb	outdoors	1,276.37	457.69	818.68		49,942	12.00
2016	Latvia	herb	indoors					557	35
2016	Latvia	herb	outdoors					78	6
2017	Latvia	herb	indoors					798	34
2017	Latvia	herb	outdoors					66	15
2018	Latvia	herb	indoors					152	17
2018	Latvia	herb	outdoors					1,152	34
2019	Latvia	herb	indoors					932	34
2019	Latvia	herb	outdoors					61	12
2015	Lebanon	herb	outdoors	3,500.00		3,500.00			
2017	Lebanon	Kif	outdoors	40,772.00					
2018	Lebanon	herb	outdoors	4,205.70		4,205.70			
2016	Lithuania	herb	indoors						4
2017	Lithuania	herb	indoors						8
2017	Lithuania	herb	outdoors						7
2018	Lithuania	herb	indoors						3
2015	Madagascar	herb	outdoors		11.00			21,325	
2017	Madagascar	herb	outdoors		9.00			57,708	
2013	Malta	herb	indoors					27	
2016	Mexico	herb	outdoors		5,478.42		6,574.1		38,432
2017	Mexico	herb	outdoors		4,193.34		5,032.0		34,523
2018	Mexico	herb	outdoors		2,263.71		2,726.47		28,873
2013	Mongolia	herb	outdoors	15,000.00	4,000.00	11,000.00		4,000	4,000
2018	Mongolia	herb	outdoors	15,000.00	173.00	14,827.00			33
2016	Morocco	herb	outdoors				35,652.83		
2016	Morocco	plant	outdoors	47,000.00	395.00	46,605.00			
2016	Morocco	resin	outdoors				713.00		
2017	Morocco	herb	outdoors				35,702.90		
2017	Morocco	plant	outdoors	47,500.00	523.00	46,977.00			

Year	Country / Territory	Product	Outdoors/ indoors	Area cultivated (ha)	Area eradicated (ha)	Harvestable area (ha)	Production (tons)	Plants eradicated	Sites eradicated
2017	Morocco	resin	outdoors				714.06		
2018	Morocco	herb	outdoors				23,699.80		
2018	Morocco	plant	outdoors	47,500.00		47,500.00			
2018	Morocco	resin	outdoors				423.58		
2019	Morocco	plant	outdoors	21,048.71	135.50	20,913.21			
2019	Morocco	resin	outdoors				596.03		
2014	Myanmar	herb	outdoors	15.00	10.00	5.00			3
2018	Nepal	herb	outdoors	235.87	235.87	0.00	5,000.00	2,358,700	335
2016	Netherlands	herb	indoors					994,068	5,856
2017	Netherlands	herb	indoors					883,163	5,538
2018	Netherlands	herb	indoors					516,418	3,482
2018	Netherlands	herb	outdoors						431
2019	Netherlands	herb	indoors					556,802	3,285
2019	Netherlands	herb	outdoors						350
2016	New Zealand	herb	indoors					18,903	607
2016	New Zealand	herb	outdoors					104,725	
2017	New Zealand	herb	indoors					19,992	
2017	New Zealand	herb	outdoors					19,559	
2018	New Zealand	herb	indoors					19,313	
2018	New Zealand	herb	outdoors					22,660	
2019	New Zealand	herb	indoors					18,052	
2019	New Zealand	herb	outdoors					15,269	
2014	Nicaragua	herb	outdoors		0.30		1,507.00	3,014	30
2016	Nicaragua	herb	outdoors					275,000	
2017	Nicaragua	herb	outdoors					994,787	
2016	Nigeria	herb	outdoors		718.78				65
2017	Nigeria	herb	outdoors		317.12				
2018	Nigeria	herb	outdoors		3,660.64				
2017	North Macedonia	herb	indoors					168	
2017	North Macedonia	herb	outdoors					220	
2018	North Macedonia	herb	outdoors	2.51			0.00404	2,264	4,527
2015	Norway	herb	indoors		0.04			4,000	30
2016	Oman	herb	outdoors	0.50 <sup>a</sup>	0.50	0.00		5	3
2013	Panama	herb	indoors	0.50 <sup>a</sup>	0.50	0.00		37	2
2013	Panama	herb	outdoors	10.50 <sup>a</sup>	10.50	0.00		78,633	2
2016	Paraguay	herb	outdoors				1,298.50		
2016	Paraguay	plant	outdoors	1,298.50 <sup>a</sup>	1,298.50	0.00		5,656,266	4
2016	Paraguay	resin	outdoors				1.15		
2017	Paraguay	plant	outdoors		1,462.00			36,550,000	
2016	Peru	herb	outdoors		87.83			1,429,749	
2017	Peru	herb	outdoors		61.30			4,671,387	47
2018	Peru	herb	outdoors		91.80			1,716,751	46
2016	Philippines	herb	outdoors		8.67			24,635,153	337
2017	Philippines	herb	outdoors		4.82			221,035	27
2018	Philippines	herb	outdoors		12.39			869,682	186
2019	Philippines	herb	outdoors		149.35			2,345,650	137
2016	Poland	herb	indoors					146,755	1,403
2016	Poland	herb	indoors/outdoors					4,585	219
2017	Poland	herb	indoors					448	10
2017	Poland	herb	indoors/outdoors						54
2018	Poland	herb	indoors/outdoors					118,382	1,274.00

Year	Country / Territory	Product	Outdoors/ indoors	Area cultivated (ha)	Area eradicated (ha)	Harvestable area (ha)	Production (tons)	Plants eradicated	Sites eradicated
2019	Poland	herb	indoors					2,840	2
2019	Poland	herb	indoors/outdoors					5,124	17
2017	Portugal	herb	indoors/outdoors					22,910	158
2018	Portugal	herb	indoors/outdoors					8,706	139
2019	Portugal	herb	indoors/outdoors					12,077	131
2013	Republic of Korea	herb	outdoors					8,072	
2014	Republic of Moldova	herb	indoors		41.00				
2014	Republic of Moldova	herb	outdoors	100.00	59.00	41.00	10,000.00	200,548	
2017	Republic of Moldova	herb	outdoors	0.15	2.57			257,236	
2018	Republic of Moldova	herb	outdoors		0.71			86,926	61
2019	Republic of Moldova	herb	outdoors					143,537	
2016	Romania	herb	indoors					1,433	41
2016	Romania	herb	outdoors		6.99				42
2017	Romania	herb	indoors					1,875	46
2017	Romania	herb	outdoors		1.90			4,905	32
2018	Romania	herb	indoors					3,903	39
2018	Romania	herb	outdoors		0.11			1,882	98
2019	Romania	herb	indoors		0.49			2,096	39
2019	Romania	herb	outdoors					787	44
2016	Russian Federation	herb	indoors		0.66				788
2016	Russian Federation	herb	outdoors	7.61 <sup>a</sup>	7.61	0.00	68.64		1,143
2017	Russian Federation	herb	indoors		0.87				1,990
2017	Russian Federation	herb	outdoors	159.00 <sup>a</sup>	159.00	0.00	30.07		5,379
2018	Russian Federation	herb	indoors		1.87				
2018	Russian Federation	herb	outdoors	9.34 <sup>a</sup>	7.47	1.87			16,212
2019	Russian Federation	herb	indoors		0.72				2,112
2019	Russian Federation	herb	outdoors		161.10				3,571
2015	Serbia	herb	outdoors				0.05		
2013	Sierra Leone	herb	outdoors	190.00		190.00		190	3
2016	Slovakia	herb	indoors					385	
2017	Slovakia	herb	outdoors	2.00 <sup>a</sup>	2.00	0.00		2,299	31
2019	Slovakia	herb	indoors					1,611	41
2014	Slovenia	herb	indoors					9,223	118
2014	Slovenia	herb	outdoors					1,844	
2017	Slovenia	herb	indoors					10,259	78
2015	Spain	herb	indoors					244,772	108
2015	Spain	herb	outdoors					135,074	44
2014	Sudan	herb	outdoors	8.00 <sup>a</sup>	8.00	0.00	345.00		
2017	Sudan	herb	outdoors	1,250.00 <sup>a</sup>	1,250.00	0.00	205.00		100
2018	Sudan	herb	outdoors	7,744.00 <sup>a</sup>	1,452.00	6,292.00	774,400.00	1,500,000	3
2014	Sweden	herb	indoors					10,000	56
2015	Sweden	herb	outdoors				182.00		
2017	Sweden	herb	indoors					5,100	44
2018	Sweden	herb	indoors					1,642	
2016	Switzerland	herb	indoors					11,386	83
2017	Switzerland	herb	indoors					71,750	
2016	Thailand	herb	outdoors	1.00 <sup>a</sup>	1.00	0.00	7.50		1
2019	Thailand	herb	outdoors	1.50 <sup>a</sup>	1.50	0.00	45.00	4,790	53
2019	Togo	herb	outdoors		0.06				1
2015	Trinidad and Tobago	herb	outdoors		0.31			375,925	58
2016	Ukraine	herb	outdoors	91.00 <sup>a</sup>	91.00	0.00			

Year	Country / Territory	Product	Outdoors/ indoors	Area cultivated (ha)	Area eradicated (ha)	Harvestable area (ha)	Production (tons)	Plants eradicated	Sites eradicated
2017	Ukraine	herb	outdoors		166.90			483,000	
2019	Ukraine	herb	outdoors		47.00			1,800,000	2,135
2016	United States of America	herb	indoors					406,125	1,865
2016	United States of America	herb	outdoors					4,940,596	5,513
2017	United States of America	herb	indoors					303,654	1,399
2017	United States of America	herb	outdoors					3,078,418	4,062
2018	United States of America	herb	indoors					596,149	1,618
2018	United States of America	herb	outdoors					2,221,837	3,847
2019	United States of America	herb	indoors					770,472	1,437
2019	United States of America	herb	outdoors					3,232,722	3,850
2016	Uruguay	herb	indoors					661	
2017	Uruguay	herb	indoors					1,926	
2019	Uruguay	herb	indoors					1,654	
2016	Uzbekistan	herb	outdoors	0.20 <sup>a</sup>	0.20	0.00			586
2017	Uzbekistan	herb	outdoors	0.20 <sup>a</sup>	0.20	0.00			618
2018	Uzbekistan	herb	indoors	0.13 <sup>a</sup>	0.13	0.00			519
2019	Uzbekistan	herb	outdoors	0.11 <sup>a</sup>	0.11	0.00			417
2018	Venezuela	herb	oudoors					13,891	4
2015	Viet Nam	herb	oudoors		1.00				

Sources: United Nations Office on Drugs and Crime annual report questionnaire, government reports and and international narcotics control strategy reports of the United States of America.

a) Estimate of total area under cannabis cultivation.

# GLOSSARY

*amphetamine-type stimulants* — a group of substances composed of synthetic stimulants controlled under the Convention on Psychotropic Substances of 1971, which includes amphetamine, methamphetamine, methcathinone and the “ecstasy”-group substances (3,4-methylenedioxymethamphetamine (MDMA) and its analogues).

*amphetamines* — a group of amphetamine-type stimulants that includes amphetamine and methamphetamine.

*annual prevalence* — the total number of people of a given age range who have used a given drug at least once in the past year, divided by the number of people of the given age range, and expressed as a percentage.

*coca paste (or coca base)* — an extract of the leaves of the coca bush. Purification of coca paste yields cocaine (base and hydrochloride).

*“crack” cocaine* — cocaine base obtained from cocaine hydrochloride through conversion processes to make it suitable for smoking.

*cocaine salt* — cocaine hydrochloride.

*drug use* — use of controlled psychoactive substances for non-medical and non-scientific purposes, unless otherwise specified.

*fentanyls* — fentanyl and its analogues.

*new psychoactive substances* — substances of abuse, either in a pure form or a preparation, that are not controlled under the Single Convention on Narcotic Drugs of 1961 or the 1971 Convention, but that may pose a public health threat. In this context, the term “new” does not necessarily refer to new inventions but to substances that have recently become available.

*opiates* — a subset of opioids comprising the various products derived from the opium poppy plant, including opium, morphine and heroin.

*opioids* — a generic term that refers both to opiates and their synthetic analogues (mainly prescription or pharmaceutical opioids) and compounds synthesized in the body.

*problem drug users* — people who engage in the high-risk consumption of drugs. For example, people who inject drugs, people who use drugs on a daily basis and/or people diagnosed with drug use disorders (harmful use or drug dependence), based on clinical criteria as contained in the *Diagnostic and Statistical Manual of Mental Disorders* (fifth edition) of the American Psychiatric Association, or the *International Classification of Diseases and Related Health Problems* (tenth revision) of WHO.

*people who suffer from drug use disorders/people with drug use disorders* — a subset of people who use drugs. Harmful use of substances and dependence are features of drug use disorders. People with drug use disorders need treatment, health and social care and rehabilitation.

*harmful use of substances* — defined in the *International Statistical Classification of Diseases and Related Health Problems* (tenth revision) as a pattern of use that causes damage to physical or mental health.

*dependence* — defined in the *International Statistical Classification of Diseases and Related Health Problems* (tenth revision) as a cluster of physiological, behavioural and cognitive phenomena that develop after repeated substance use and that typically include a strong desire to take the drug, difficulties in controlling its use, persisting in its use despite harmful consequences, a higher priority given to drug use than to other activities and obligations, increased tolerance, and sometimes a physical withdrawal state.

*substance or drug use disorders* — referred to in the *Diagnostic and Statistical Manual of Mental Disorders* (fifth edition) as patterns of symptoms resulting from the repeated use of a substance despite experiencing problems or impairment in daily life as a result of using substances. Depending on the number of symptoms identified, substance use disorder may be mild, moderate or severe.

*prevention of drug use and treatment of drug use disorders* — the aim of “prevention of drug use” is to prevent or delay the initiation of drug use, as well as the transition to drug use disorders. Once a person develops a drug use disorder, treatment, care and rehabilitation are needed.

# REGIONAL GROUPINGS

The *World Drug Report* uses a number of regional and subregional designations. These are not official designations, and are defined as follows:

## AFRICA

- East Africa: Burundi, Comoros, Djibouti, Eritrea, Ethiopia, Kenya, Madagascar, Mauritius, Rwanda, Seychelles, Somalia, South Sudan, Uganda, United Republic of Tanzania and Mayotte
- North Africa: Algeria, Egypt, Libya, Morocco, Sudan and Tunisia
- Southern Africa: Angola, Botswana, Eswatini, Lesotho, Malawi, Mozambique, Namibia, South Africa, Zambia, Zimbabwe and Reunion
- West and Central Africa: Benin, Burkina Faso, Cabo Verde, Cameroon, Central African Republic, Chad, Congo, Côte d'Ivoire, Democratic Republic of the Congo, Equatorial Guinea, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Mauritania, Niger, Nigeria, Sao Tome and Principe, Senegal, Sierra Leone, Togo and Saint Helena

## AMERICAS

- Caribbean: Antigua and Barbuda, Bahamas, Barbados, Cuba, Dominica, Dominican Republic, Grenada, Haiti, Jamaica, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Trinidad and Tobago, Anguilla, Aruba, Bonaire, Netherlands, British Virgin Islands, Cayman Islands, Curaçao, Guadeloupe, Martinique, Montserrat, Puerto Rico, Saba, Netherlands, Sint Eustatius, Netherlands, Sint Maarten, Turks and Caicos Islands and United States Virgin Islands
- Central America: Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama
- North America: Canada, Mexico, United States of America, Bermuda, Greenland and Saint-Pierre and Miquelon

- South America: Argentina, Bolivia (Plurinational State of), Brazil, Chile, Colombia, Ecuador, Guyana, Paraguay, Peru, Suriname, Uruguay, Venezuela (Bolivarian Republic of) and Falkland Islands (Malvinas)

## ASIA

- Central Asia and Transcaucasia: Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan
- East and South-East Asia: Brunei Darussalam, Cambodia, China, Democratic People's Republic of Korea, Indonesia, Japan, Lao People's Democratic Republic, Malaysia, Mongolia, Myanmar, Philippines, Republic of Korea, Singapore, Thailand, Timor-Leste, Viet Nam, Hong Kong, China, Macao, China, and Taiwan Province of China
- South-West Asia: Afghanistan, Iran (Islamic Republic of) and Pakistan
- Near and Middle East: Bahrain, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Syrian Arab Republic, United Arab Emirates, Yemen and State of Palestine
- South Asia: Bangladesh, Bhutan, India, Maldives, Nepal and Sri Lanka

## EUROPE

- Eastern Europe: Belarus, Republic of Moldova, Russian Federation and Ukraine
- South-Eastern Europe: Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Montenegro, North Macedonia, Romania, Serbia, Turkey and Kosovo<sup>1</sup>

<sup>1</sup> References to Kosovo shall be understood to be in the context of Security Council resolution 1244 (1999).

- Western and Central Europe: Andorra, Austria, Belgium, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Monaco, Netherlands, Norway, Poland, Portugal, San Marino, Slovakia, Slovenia, Spain, Sweden, Switzerland, United Kingdom of Great Britain and Northern Ireland, Holy See, Faroe Islands and Gibraltar

## OCEANIA

- Australia and New Zealand: Australia and New Zealand
- Polynesia: Cook Islands, Niue, Samoa, Tonga, Tuvalu, French Polynesia, Tokelau and Wallis and Futuna Islands
- Melanesia: Fiji, Papua New Guinea, Solomon Islands, Vanuatu and New Caledonia
- Micronesia: Kiribati, Marshall Islands, Micronesia (Federated States of), Nauru, Palau, Guam and Northern Mariana Islands



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Consisting of five separate booklets, the *World Drug Report 2021* provides an in-depth analysis of the global drug markets and paints a comprehensive picture of the measurable effects and potential impact of the COVID-19 crisis on the world drug problem.

Booklet 1 summarizes the four subsequent booklets by reviewing their key findings and highlighting their policy implications. Booklet 2 offers a projection of the impact of population growth on drug use by 2030 and gives a global overview of the supply of and demand for drugs, including their health impact and the trafficking of substances over the Internet. Booklet 3 provides an analysis of the global markets for cannabis and opioids, both in terms of supply and use, and includes an overview of the latest developments in countries with measures regulating the non-medical use of cannabis; it also discusses the overlaps between the various opioids and looks at access to pharmaceutical opioids for medical use. Booklet 4 contains the latest trends in and estimates of the markets for stimulants – cocaine, methamphetamine, amphetamine and “ecstasy” – both at the global level and in the most affected subregions. Booklet 5 presents an early assessment of the impact of the COVID-19 pandemic on drug markets by looking at how it has affected drug supply and demand dynamics, including in terms of health consequences and how drug service provision has adapted to the new situation in many countries; the booklet closes with a look at how the pandemic may influence long-term changes in the drug markets.

The *World Drug Report 2021* is aimed not only at fostering greater international cooperation to counter the impact of the world drug problem on health, governance and security, but also, with its special focus on the impact of the COVID-19 pandemic, at assisting Member States in anticipating and addressing challenges that may arise in the near future.

The accompanying statistical annex is published on the UNODC website:  
[www.unodc.org/unodc/en/data-and-analysis/wdr2021.html](http://www.unodc.org/unodc/en/data-and-analysis/wdr2021.html)

