Drugs can kill.

Addiction can be an unending, agonizing struggle for the person using drugs; suffering is needlessly compounded when people cannot access evidence-based care or are subjected to discrimination. The consequences of drug use can have ripple effects that hurt families, potentially across generations, as well as friends and colleagues. Using drugs can endanger health and mental health and is especially harmful in early adolescence. Illicit drug markets are linked with violence and other forms of crime. Drugs can fuel and prolong conflict, and the destabilizing effects as well as the social and economic costs hinder sustainable development.

The whole of the international community shares the same goals of protecting the health and welfare of people everywhere. But too often in the debate on drug policy approaches, we forget this basic and shared understanding, which is rooted in the fact that drug use for non-medical purposes is harmful.

We all want our children and loved ones to be healthy, and we want neighbourhoods and countries to be safe. As policymakers, we can see that illicit drug cultivation offers no way out for impoverished communities in the long run, that the drug trade has environmental impacts, and that drug trafficking along with associated corruption and illicit flows undermine the rule of law and stability.

Solutions to these shared threats and challenges to achieve our shared goals must also be shared and based on evidence. It is in this spirit that I am proud to present the World Drug Report 2022 from the United Nations Office on Drugs and Crime.

This is the first World Drug Report of the post-pandemic world. While countries continue to grapple with COVID-19 and its consequences, we have emerged from cycles of lockdowns to confront a “new normal”. And we have found that the world post-pandemic remains one in crisis, faced with multiple conflicts, a continuing climate emergency and threat of recession, even as the multilateral order is showing troubling signs of strain and fatigue.

World drug challenges further complicate the picture. Cocaine production is at a record high, and seizures of amphetamine and methamphetamine have skyrocketed. Markets for these drugs are expanding to new and more vulnerable regions.

Harmful patterns of drug use likely increased during the pandemic. More young people are using drugs compared with previous generations. People in need of treatment cannot get it, women most of all. Women account for over 40 percent of people using pharmaceutical drugs for non-medical purposes, and nearly one in two people using amphetamine-type stimulants (ATS), but only one in five in treatment for ATS is a woman.
In the face of these multiple crises, we need to show greater care.

Care starts with evidence-based prevention and addressing perceptions and misperceptions of risk, including by taking a hard look at the messages our societies are sending to young people. UNODC research has shown that perceptions of cannabis harms have decreased in areas where the drug has been legalized. At the same time, the proportion of people with psychiatric disorders and suicides associated with regular cannabis use has increased, together with the number of hospitalizations. Some 40 per cent of countries reported cannabis as the drug related to the greatest number of drug use disorders.

Whole-of-society approaches are needed to ensure that people, young people most of all, have the information and develop the resilience to make good choices and that they can access science-based treatment and services for drug use disorders, HIV and related diseases when they need it.

There can be no effective prevention or treatment without recognition of the problem and the necessary funding to address the problem. Public resources are stretched to the limit by competing demands, but we cannot afford to let commitment wane. We need to promote compassion and better understanding.

Care in crises means ensuring services and essential medicines for all, including people in emergencies and humanitarian settings; people left behind in the pandemic; and people facing barriers of stigma and discrimination.

Care is also manifested in shared responsibility, and we need to renew international cooperation to sustainably reduce illicit crop cultivation and tackle the criminal groups trafficking drugs.

The World Drug Report seeks to offer the data and insights to inform our joint efforts. This year’s edition delves into the interplay between drugs and conflict, the impact of drugs on the environment and the effects of cannabis legalization, and identifies dynamics to watch, from the opiate market in light of developments in Afghanistan to dark web drug sales.

I hope the report serves as a basis for effective responses, and generates the support we need to continue shedding light on different aspects of the world drug problem, and assisting Member States to take action and save lives.

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

The term “seizures” is used in the World Drug Report to refer to quantities of drugs seized, unless otherwise specified.

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. Sex-disaggregated analysis has been included wherever possible.

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:

- AIDS acquired immunodeficiency syndrome
- ATS amphetamine-type stimulants
- CBD cannabidiol
- COVID-19 coronavirus disease
- DALYs disability-adjusted life years
- FAO Food and Agriculture Organization of the United Nations
- HIV human immunodeficiency virus
- INCB International Narcotics Control Board
- MDMA 3,4-methylenedioxyamphetamine
- NPS new psychoactive substances
- P-2-P 1-phenyl-2-propanone
- PWID people who inject drugs
- RMIT Royal Melbourne Institute of Technology
- THC tetrahydrocannabinol
- UNAIDS Joint United Nations Programme on HIV/AIDS
- UNODC United Nations Office on Drugs and Crime
- WHO World Health Organization
SPECIAL POINTS OF INTEREST
UNODC CALLS TO ACTION TO SAVE LIVES

Care in crises and conflicts:

» Ensure access to the controlled medicines included in the WHO Model List of Essential Medicines as part of humanitarian response efforts.


» Prevent negative coping behaviours such as substance use, especially among children and youth, through family skills support and psychosocial support.

Leave no one behind:

» Improve the collection and analysis of data, disaggregated by gender and age, to strengthen early warning and evidence-based responses.

» Tailor interventions to women, youth and at-risk groups and close treatment gaps so that everyone can access the services they need without stigma or discrimination, in line with the UNODC/WHO International Standards for the Treatment of Drug Use Disorders.

» Mobilize all sectors and industries, including health, justice, social welfare, education, media and entertainment, for a whole-of-society-approach to strengthen evidence-based prevention, building on the UNODC/WHO International Standards on Drug Use Prevention.

Cooperate to contain criminal markets:

» Step up cross-border law enforcement and criminal justice cooperation and intelligence-sharing to disrupt transnational trafficking enterprises.

» Target increasing drug trafficking via waterways by strengthening container control and interdiction capacities at ports and sensitizing port authorities and commercial shipping companies to the related risks.

» Increase technical assistance to developing countries to facilitate their engagement in international cooperation and joint operations, including to tackle drug trafficking on the dark web.
### HEALTH HARM OF DRUGS IN THE CONTEXT OF OTHER PSYCHOACTIVE SUBSTANCES

**Substance use-related deaths in 2019 (in million)**

<table>
<thead>
<tr>
<th>Substance</th>
<th>Deaths (Million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tobacco (risk factor)</td>
<td>8.7</td>
</tr>
<tr>
<td>Alcohol use (risk factor)</td>
<td>2.4</td>
</tr>
<tr>
<td>Drug use (risk factor)</td>
<td>0.5</td>
</tr>
<tr>
<td>Alcohol use disorders</td>
<td>0.17</td>
</tr>
<tr>
<td>Drug use disorders</td>
<td>0.13</td>
</tr>
</tbody>
</table>

Drug use accounts for 5% of all substance-related deaths.

---

**Years of “healthy” life lost due to disability and premature deaths (DALYs), 2019**

<table>
<thead>
<tr>
<th>Substance</th>
<th>DALYs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tobacco</td>
<td>230 million</td>
</tr>
<tr>
<td>Alcohol</td>
<td>93 million</td>
</tr>
<tr>
<td>Drugs</td>
<td>31 million</td>
</tr>
</tbody>
</table>

Drug use accounts for 9% of substance use-related DALYs.
The market for cocaine is booming, with new record highs in manufacture and high levels of use.

- Tailor holistic drug-supply reduction strategies encompassing economic development and alternative livelihoods in countries where coca bush is illicitly cultivated.
- Direct law enforcement resources to target maritime and container trafficking.
- Increase technical assistance to enhance the capacity of law enforcement authorities to detect and interdict cocaine.
- Promote and facilitate post-seizure backtracking investigations with improved international cooperation.
- Tackle demand by increasing investment in evidence-based prevention and research into treating cocaine dependence.
While the majority of people who use drugs are men, women use some drug types nearly as much as men; and women continue to be underrepresented in drug treatment.

Even though almost one in two amphetamines users is a woman, less than one in five persons in treatment for amphetamines is a woman.

Possible responses:

- Invest in research to better understand the role of sex and gender in pathways to drug use and drug use disorders.
- Expand gender-sensitive services for drug treatment and HIV prevention, treatment and care to ensure that women feel safe and not stigmatized, can exercise their childcare responsibilities and are supported with regard to other needs.

Distribution of users of selected drugs by sex: 

- Opioids: 85% men, 15% women
- Cocaine: 73% men, 27% women
- Cannabis: 70% men, 30% women
- New psychoactive substances: 70% men, 30% women
- Ecstasy-type substances: 62% men, 38% women
- Non-medical use of pharmaceutical stimulants: 55% men, 45% women
- Amphetamines: 55% men, 45% women
- Non-medical use of pharmaceutical opioids: 53% men, 47% women
- Non-medical use of sedatives and tranquilizers: 51% men, 49% women
SPECIAL POINTS OF INTEREST

FINDINGS

Young people continue to use more drugs than adults, and have higher levels of use than in past generations

POSSIBLE RESPONSES

» Develop national drug prevention systems that reach children as early as possible in their development and focus on building resilience.

» Reach out to and involve adolescents, disseminating prevention messages on social media and other online platforms.

» Promote prevention and treatment options for young people who use drugs and young people with drug use disorders that are backed by evidence, including mental health services; screening, brief interventions and health services referral; and family therapy.

» For children and youth that have been exposed to drugs at a very young age and/or are in particularly deprived circumstances, provide educational opportunities, vocational skills training and other socioeconomic support.

Figures:

Global and regional use of cannabis among people aged 15–16, and among the general population aged 15–64 (2020 or most recent year for which data are available)
Different drugs pose different demands on healthcare systems

**DIFFERENT MEASURES OF HARM**
Share of countries reporting the drug as most harmful

- **Drug use disorders**
  - Cannabis: 15%
  - Opioids: 40%
  - Amphetamine-type stimulants: 35%
  - Sedatives and tranquilizers: 7%
  - Cocaine: 4%
  - New psychoactive substances: 2%
  - Hallucinogens: 2%
  - Other drugs: 3%

- **Drug-related deaths**
  - Cannabis: 7%
  - Opioids: 77%
  - Amphetamine-type stimulants: 4%
  - Sedatives and tranquilizers: 2%
  - Cocaine: 4%
  - New psychoactive substances: 1%
  - Hallucinogens: 4%
  - Other drugs: 1%

- **Drug-related treatment**
  - Cannabis: 16%
  - Opioids: 38%
  - Amphetamine-type stimulants: 33%
  - Sedatives and tranquilizers: 8%
  - Cocaine: 4%
  - New psychoactive substances: 4%
  - Hallucinogens: 1%
  - Other drugs: 4%

**POSSIBLE RESPONSES**

- Provide more resources to increase access to evidence-based and voluntary services.
- Integrate outreach, psychosocial, pharmacological, healthcare and social support services to better protect the health of people who use drugs and people with drug use disorders and promote their recovery.
- Promote opioid-assisted therapy, supporting recovery and preventing overdose, and the community-based provision of naloxone.
- Invest in research on the treatment of stimulant use disorders, while advancing the dissemination of effective psychosocial therapies.
- Develop a clear and comprehensive methodology to more accurately estimate the social costs of cannabis use and its impact on public health.
- Ensure that drug treatment services, as well as HIV prevention, treatment and care, are available in prison settings.
Early indications suggest that cannabis legalization has had a wide-ranging impact on public health and safety, market dynamics, commercial interests and criminal justice responses.

**FINDINGS**

**POSSIBLE RESPONSES**

- Continue to monitor the impact of cannabis legalization, in particular on public health, the rule of law, public safety and the parallel illegal market, to better understand associated social and economic costs.

- Invest in research into the effects of cannabis use, especially the health consequences of the use of cannabis products with high THC content.

- Address misperceptions of the risks of cannabis use through evidence-based prevention messages.

- Prioritize public health and safety as commercial interests lobby to expand the market for legal cannabis.

- Draw from the lessons learned from the tobacco, alcohol and ultra-processed food industries as well as the pharmaceutical industry and documented cases where the pursuit of commercial interests has targeted vulnerable or disadvantaged groups, and competed with public health concerns.
Illicit drug economies can flourish in situations of conflict and weak rule of law, and can, in turn, prolong or fuel conflict.

**Possible Responses**

- Integrate drug policy approaches into conflict and peacebuilding responses, and when addressing crises and weak rule of law.
- Encourage more complex and deep investigation of transnational crimes, aimed at revealing and dismantling related financial flows that could otherwise fuel the conflict.
- Monitor conflict situations for emerging drug threats, for example synthetic drugs manufacture in Ukraine.
- Strengthen information-sharing and law enforcement capacity-building to prevent and counter challenges emerging from conflict situations.
The impact of drugs on the environment can be significant at the local level

**CARBON FOOTPRINT OF COCAINE PRODUCTION COMPARED WITH THE CARBON FOOTPRINT OF THE PRODUCTION OF A SELECTION OF ALTERNATIVE CROPS**

<table>
<thead>
<tr>
<th>COCAINE PRODUCTION</th>
<th>PRODUCTION OF ALTERNATIVE CROPS</th>
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<tbody>
<tr>
<td>590 kg of CO₂e per kg</td>
<td>Sugar cane: 0.2 kg</td>
</tr>
<tr>
<td>0.5 kg of CO₂e per kg</td>
<td>Green coffee beans: 7 kg</td>
</tr>
<tr>
<td></td>
<td>Cocoa beans: 20 kg</td>
</tr>
</tbody>
</table>

**FINDINGS**

The impact of drugs on the environment can be significant at the local level.

**POSSIBLE RESPONSES**

» Mainstream the objective of “do no harm to the environment” in drug policy responses.

» Develop new, dedicated international standards to systematically integrate environmental protection into the design and monitoring of alternative development programmes, building on recent experience and existing tools.

» Bring the environmental impact of the illicit cultivation of plant-based drugs into the broader debate about alternative development and agricultural production to balance environmental concerns with commercial, production-related objectives.

» Consider specific complementary strategies that can be adopted in alternative development programmes, such as carbon credit schemes, payment for environmental services and agroecology to strengthen their environmental components while bringing financial benefits.

» Adopt legal frameworks that encompass the environmentally responsible disposal of equipment and chemicals used in the illicit manufacture of drugs, and enhance the capacity of authorities to safely handle and dispose of such materials, and to destroy seized drugs.

» Undertake targeted research to better understand the extent and dynamics of the links between drug trafficking and deforestation, and the longer-term effects of drugs on biodiversity and on the food chain.
SYNTHESIS OF DRUGS AND GENERATION OF WASTE

PRODUCTION

“Base” chemicals

Various pre-precursors

Precursor and alternative precursors

Bulk synthetic drugs

Drugs for the market

WASTE

“industrial” waste, (pre-)precursors

Reaction mixtures and (pre-)precursors

Reaction mixtures, (pre-)precursors and end products

End product and “supporting” chemicals

End product and human metabolites

Drug consumption

Drug consumption

Illicit drug production

(Pre-)precursor production

IN SIGHTS
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.

Cocaine

Opioids/Opiates

Amphetamine-type stimulants (ATS)

HIV among people who inject drugs

high level of opioid-related overdoses
increasing use of methamphetamine
cocaine use

manufacture of methamphetamine and opioids

cocaine trafficking

cocaine production and trafficking

cocaine use disorders
cocaine trafficking
high level of opioid-related overdoses
increasing use of methamphetamine
cocaine use
manufacture of methamphetamine and opioids
cocaine production and trafficking
cocaine trafficking
cocaine use disorders
cocaine use
expanding cocaine market
increasing use of ATS
non-medical use of tramadol
increasing cocaine trafficking
heroin in transit spilling over into local heroin use
high prevalence of HIV among people who inject drugs
use of synthetic stimulants
heroin and cocaine trafficking
high prevalence of HIV among people who inject drugs
expansion of NPS and synthetic drug markets
high prevalence of use of stimulants (methamphetamine and cocaine)
high prevalence of opioids use
expanding ATS market
methamphetamine manufacture
methamphetamine opiates production
large methamphetamine market
<table>
<thead>
<tr>
<th>Key issues</th>
<th>Demand</th>
<th>Supply</th>
<th>DRUG-BY-DRUG DEVELOPMENTS IN BRIEF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cannabis</td>
<td>Cannabis remains by far the world’s most</td>
<td>Cannabis cultivation is reported to be on the increase in 2020</td>
<td>Periods of lockdown during the COVID-19 pandemic drove increases in the use of cannabis, in terms of both amounts used and frequency of use, in 2020. Cannabis accounts for a substantial share of global drug-related harm, owing in part to its high prevalence rates. Some 40 per cent of countries reported cannabis as the drug associated with the greatest number of drug use disorders, and 33 per cent reported it as the main drug of concern for those in drug treatment. Early indicators point to wide-ranging impacts of cannabis legalization in jurisdictions in North America on public health, public safety, market dynamics, commercial interests and criminal justice responses.</td>
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<tr>
<td></td>
<td>used drug</td>
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<td>The share of women among people who misuse pharmaceutical opioids, compared with most other drugs, is notably high (47 per cent)</td>
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<td>An estimated 209 million people used</td>
<td>The area under opium poppy cultivation decreased by 16 per cent in 2021, but opium production continued its long-term upward trend, increasing by 7 per cent from 2020. Afghanistan continues to account for most (86 per cent) of global illicit opium production. Changes in opium production in the country will have implications for opiate markets in virtually all regions of the world.</td>
<td>The two epidemics of non-medical use of opioids, one related to fentanyl’s use in North America and the other related to the non-medical use of tramadol in North Africa, West Africa, the Near and Middle East and South-West Asia, continue to pose great health risks.</td>
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<td></td>
<td>cannabis in 2020, representing 4 per cent of the global population. Half of them resided in South Asia and South-West Asia. Of these, an estimated 31 million people used opiates, mainly heroin.</td>
<td>The Balkan Route remains the main trafficking channel for opiates, with individual drug seizures for 2021 rebounding after being impacted by the COVID-19 pandemic in 2020.</td>
<td>In Africa, there have been signs of increases in the non-medical use of tramadol and related harms in recent years. In North America, overdose deaths, driven by the use of fentanyl, reached unprecedented levels during the COVID-19 pandemic. Access to pharmaceutical opioids for pain management and palliative care continues to be very unequal between low- and middle-income countries and high-income countries.</td>
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<td></td>
<td>The number of people who use cannabis has increased by 23 per cent over the past decade. Use remains the highest in North America, where 16.6 per cent of the population use the drug.</td>
<td>Seizures of cannabis herb increased substantially in 2020, following a downward trend over the last decade, driven by large decreases in seizures in North America. The carbon footprint of indoor cannabis cultivation is considerably larger than that of outdoor cannabis cultivation (between 16 to 100 times higher), mostly owing to differences in energy consumption.</td>
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<td>Cannabis remains the main drug of concern for the majority of people in treatment in Africa. The percentage of women who use cannabis varies across regions, among those 9 per cent in Asia to 42 per cent in North America.</td>
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<td>Opioids remain the most lethal group of drugs, accounting for two thirds of deaths related directly to drugs (mostly overdoses).</td>
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<td></td>
<td>An estimated 61 million people used opioids in 2020, representing 1.2 per cent of the global population. Half of them resided in South Asia and South-West Asia. Of these, an estimated 31 million people used opiates, mainly heroin.</td>
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<td>The level of opioid use remained stable in 2020. The estimated number of people who used opioids in 2020 was double that of 2010, owing partly to improved data from countries with large populations.</td>
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<td>About 40 per cent of all people in drug treatment in 2020 cited opioids as their primary drug of use.</td>
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<tr>
<td></td>
<td>Opioids remain the most lethal group of drugs, accounting for two thirds of deaths related directly to drugs (mostly overdoses).</td>
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<td></td>
<td>An estimated 21.5 million people used cocaine in 2020, representing 0.4 per cent of the global population. North America and Europe remain the two main consumer markets for cocaine. Demand in Africa and Asia has risen over the past two decades, but regional demand remains uneven and lack of data prevents a clear understanding of the level of use.</td>
<td>The level of cocaine manufacture reached a record high in 2020, amounting to 1,982 tons (pure cocaine).</td>
<td>The global market for cocaine is expanding: use has been increasing worldwide over the last decade, and trafficking is also on the rise, with record highs in manufacture and seizures. Markets for cocaine are also expanding outside the traditional markets of North America and Western Europe, in Africa and Asia. Large quantities of cocaine are trafficked from Latin America to Europe through West and North Africa.</td>
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<td>Seizures are increasingly being carried out closer to production sites in South America, where the total quantity seized is now three times higher than in North America.</td>
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<td>Cocaine is increasingly being trafficked by sea and via a wider geography of routes, with almost 90 per cent of quantities of cocaine seized linked to maritime trafficking.</td>
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<td>Cocaine manufacture has a sizeable carbon footprint, significantly higher than that of the alternative crops frequently used in alternative development projects. Cultivation of coca bush is also playing a role in deforestation, in particular as a catalyst enterprise that enables other economic activities along the agricultural frontier.</td>
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<td>The level of cocoa production reached a record high in 2020, amounting to 2,500,000 tons.</td>
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### AMPHETAMINE-TYPE STIMULANTS (ATS)

<table>
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<tr>
<th>Demand</th>
<th>Supply</th>
<th>Key issues</th>
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<tbody>
<tr>
<td>An estimated 34 million people used amphetamines in 2020, representing 0.7 per cent of the global population</td>
<td>Record-high quantities of ATS were seized in 2020, dominated by methamphetamine at the global level</td>
<td>The gender gap in treatment is particularly acute for women who use ATS, as women represent almost one in two ATS users but only one in five people in treatment for ATS disorders</td>
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<tr>
<td>Qualitative assessments suggest an increase in the use of amphetamines in 2020</td>
<td>Trafficking in ATS, in particular methamphetamine, has spread geographically</td>
<td>Methamphetamine manufacture and use have continued to spread beyond the “traditional” markets in East and South-East Asia, notably in South-West Asia, Western Europe and South America</td>
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<tr>
<td>While the prevalence of use is highest in North America, the largest number of users of amphetamines are found in East and South-East Asia</td>
<td>The market for “captagon” in the Near and Middle East continues to flourish, with seizures reaching a record high in 2020</td>
<td>The recent increase in the use and manufacture of methamphetamine in Afghanistan is of growing concern in South-West Asia, where trafficking in the substance is expanding</td>
</tr>
<tr>
<td>An estimated 20 million people used “ecstasy”-type substances in 2020, representing 0.4 per cent of the global population</td>
<td>Seizures suggest a shift in the manufacture of methamphetamine towards the precursors of P-2-P and away from the use of ephedrine and pseudoephedrine, although the use of the latter two substances remains widespread</td>
<td>Waste from the manufacture of ATS is considerable, with its weight estimated to be between 5 and 30 times greater than the weight of the end product. Dumping in forests and discharge into rivers or sewers represent a significant environmental threat for local communities</td>
</tr>
<tr>
<td>“Ecstasy” seems to have been the drug whose use was most affected by restrictions on movement imposed during the COVID-19 pandemic</td>
<td>Traffickers continue to attempt to circumvent existing rules and regulations and international controls by seeking out non-controlled chemicals for use as precursors, pre-precursors and “designer precursors” in the manufacture of ATS</td>
<td>The number of NPS classified as “novel benzodiazepines” is a growing concern. Such NPS are often sold at low prices, sometimes in packaging that mimics that of existing medicines</td>
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### NEW PSYCHOACTIVE SUBSTANCES (NPS)

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<tr>
<th>Demand</th>
<th>Supply</th>
<th>Key issues</th>
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<tbody>
<tr>
<td>The level of use of NPS is lower than that of drugs under international control</td>
<td>Seizures of plant-based NPS, dominated by kratom and khat, fell in 2020 from a record high recorded in 2019.</td>
<td>Control systems have succeeded in containing the spread of NPS in high-income countries, but the geographical reach of NPS trafficking continues to expand</td>
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<tr>
<td>NPS were consumed in most countries in 2020</td>
<td>A total of 57 countries reported seizures of synthetic NPS in 2019-2020, almost double the number from a decade earlier. These seizures were small and primarily involved ketamine, followed by synthetic cannabinoids</td>
<td>In some subregions, such as Eastern Europe and Central Asia, NPS have become a major drug problem</td>
</tr>
<tr>
<td>The most frequently used NPS are synthetic cannabinoid receptor agonists (“synthetic cannabinoids”) and ketamine</td>
<td>The number of NPS on the market has stabilized; 548 NPS were reported in 2020, of which 77 were identified for the first time</td>
<td>Opioid NPS, which include fentanyl analogues, continue to emerge. They represented the fastest growing group of NPS identified for the first time at the global level in 2020 and constitute the most harmful group of NPS</td>
</tr>
<tr>
<td>Use of NPS may be decreasing in North America and Europe, but Eastern Europe, Asia and, possibly, Africa are likely experiencing mid-term increases in use</td>
<td>The number of NPS on the market has stabilized; 548 NPS were reported in 2020, of which 77 were identified for the first time</td>
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# REGION-BY-REGION DEVELOPMENTS

<table>
<thead>
<tr>
<th>AFRICA</th>
<th>Demand</th>
<th>Supply</th>
<th>Key issues</th>
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<tbody>
<tr>
<td>Use of cannabis is particularly high in West and Central Africa, with past-year prevalence of use of nearly 10 per cent (28.5 million people), largely reflecting prevalence of cannabis use in Nigeria</td>
<td>North Africa is a hub for interregional cannabis resin smuggling to Western Europe</td>
<td>Africa has a large gender gap in the use of drugs, with 1 woman for 9 men using cannabis</td>
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<tr>
<td>Non-medical use of tramadol remains a threat, especially in North and West and Central Africa</td>
<td>Africa accounted for more than half of global quantities of pharmaceutical opioids seized between 2016 and 2020, largely due to the ongoing tramadol crisis</td>
<td>The majority of people treated for drug use disorders in Africa are under the age of 35</td>
<td></td>
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<tr>
<td>The majority of opioid users in other parts of Africa are opiate users, mostly heroin and, in a few countries, also codeine and opium</td>
<td>Most cocaine in Africa is seized near coastlines. The region, in particular West Africa, is used as a transhipment area for cocaine from South America en route to Europe</td>
<td>Cannabis is the drug for which most people with drug use disorders (more than half) seek treatment in Africa</td>
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<tr>
<td>Cocaine use is rather widespread in West and Southern Africa and appears to be generally increasing across the continent, as evidenced by people in drug treatment, though actual data is scarce</td>
<td>Heroin from South-West Asia is trafficked through all African subregions, often via East Africa as an entry point, onwards to consumer markets in Western and Central Europe</td>
<td>Africa remains a key transit region for i) cocaine in the west, ii) heroin in the east and iii) cannabis, mostly produced within the region, in the north</td>
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<tr>
<td>While the use of khat, a plant-based NPS, is widespread in East Africa, the use of synthetic NPS is mostly reported in Southern Africa, but data are scarce about both</td>
<td>Interceptions of cannabis are declining substantially in North America despite a rapidly growing cannabis market, as cannabis interdiction has become less of a priority</td>
<td>The opioid epidemic related to non-medical use of tramadol continues to pose great health risks, with treatment demands for tramadol use disorders increasing in some countries in Africa</td>
<td></td>
</tr>
<tr>
<td>Of the 920,000 people who inject drugs in Africa, around 100,000 or 11 per cent are living with HIV</td>
<td>Interceptions of cannabis are declining substantially in North America despite a rapidly growing cannabis market, as cannabis interdiction has become less of a priority</td>
<td>With an average of 42 standard daily doses per million population, West and Central Africa remains the subregion with the lowest access to internationally controlled medicines for pain management and palliative care</td>
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<table>
<thead>
<tr>
<th>AMERICAS</th>
<th>Demand</th>
<th>Supply</th>
<th>Key issues</th>
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<tbody>
<tr>
<td>In North America, cannabis products with high THC contents are proliferating; average THC levels continue to increase while levels of CBD are falling</td>
<td>Interceptions of cannabis are declining substantially in North America despite a rapidly growing cannabis market, as cannabis interdiction has become less of a priority</td>
<td>The opioid epidemic related to illicitly produced fentanyl in North America has been driving the number of overdose deaths to record highs, with an acceleration during the COVID-19 pandemic</td>
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<tr>
<td>Cannabis legalization in North America has taken place in a context of an already ongoing expansion of the cannabis market</td>
<td>Cocaine is manufactured in South America and reached a record high in 2020 at 1,982 tons (pure cocaine)</td>
<td>A quadruple convergence of increase in cannabis use, increased intensity and frequency of use and high potency of cannabis products has led to a rise in related harm and adds a substantial burden to health systems in jurisdictions that have legalized cannabis in North America</td>
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</tr>
<tr>
<td>Opioid use in North America remains high, with 3.4 per cent of the adult population reporting past-year use (11 million users)</td>
<td>Cocaine seizures have shifted closer towards production sites in South America, where total quantities seized are now three times higher than in North America</td>
<td>The gender gap in cannabis use is closing in North America, where level of use is particularly high</td>
<td></td>
</tr>
<tr>
<td>South and Central America and the Caribbean are the subregions with the highest proportion of people in drug treatment due to the use of cocaine products worldwide</td>
<td>Most of the methamphetamine manufactured in North America is for consumption within that subregion. Seizures data suggest that laboratories may be becoming larger and their output increasing</td>
<td>North America remains the main market for cocaine globally, but the whole region is impacted by increasing cocaine trafficking with record manufacture in South America</td>
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<tr>
<td>Non-medical use of pharmaceutical stimulants is comparatively high in the Americas compared to other global regions</td>
<td>Seizures of methamphetamine in North America reached a record high in 2020, despite short-term disruptions of the market at the onset of the COVID-19 pandemic</td>
<td>The methamphetamine market is expanding in North America</td>
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<td>There has been a significant increase in the number of people in treatment for methamphetamine disorders in North America in recent years</td>
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<td>ASIA</td>
<td><strong>Demand</strong></td>
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<tr>
<td>While methamphetamine is the main drug of concern in East and South-East Asia, opiates, in particular opium and heroin, predominate in South-West Asia and in South Asia, and “captagon” (amphetamine) in the Near and Middle East</td>
<td>The production of opiates increased in 2020 in South-West Asia and South-East Asia, with these two subregions accounting for more than 90 per cent of global production</td>
<td>The effects of the ban on opium poppy cultivation, announced in Afghanistan in April 2022, its application and enforcement remain to be seen but changes in opium production in Afghanistan will have implications for opiate markets in virtually all regions of the world</td>
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<tr>
<td>Methamphetamine use has risen in Afghanistan in recent years, and accounts suggest that use of methamphetamine and “captagon” tablets is rising in South-West Asia and the Gulf, although no recent estimates are available</td>
<td>Methamphetamine manufacture has increased in Afghanistan in recent years, and the drug is being trafficked beyond, into South-West Asia, while seizures in the Gulf suggest that a methamphetamine market may emerge there, too</td>
<td>The market for methamphetamine is expanding from Afghanistan to South-West Asia and beyond</td>
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<tr>
<td>South-East Asia has a long-established ketamine market</td>
<td>There is a large manufacture of methamphetamine in South-East Asia. Methamphetamine seizures in South-East Asia continued to rise rapidly in 2020 but fell slightly in East Asia</td>
<td>The methamphetamine market continues to expand in South-East Asia</td>
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<tr>
<td>The gender gap in drug use is the largest in Asia where 9 out of 100 people who used cannabis in the past year are women</td>
<td>Cocaine seizures suggest a geographical expansion in the trafficking of cocaine to Asia, with large seizures made in the region in the period 2020–2021</td>
<td>“Captagon” tablets manufactured in the Levant continue to supply large consumer markets in the Gulf</td>
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<tr>
<td>Asia accounts for the largest number of PWID worldwide (5.2 million), and among them of those living with hepatitis C (2.8 million), while the highest prevalence of HIV among PWID is found in South-West Asia</td>
<td>Use of NPS, which appears to remain contained in Western and Central Europe, seems to be increasing in Eastern Europe, where it has become more common</td>
<td>The opioid crisis related to the non-medical use of tramadol in North and West Africa also extends to the Near and Middle East</td>
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<th>EUROPE</th>
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<th><strong>Key issues</strong></th>
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<tr>
<td>Western and Central Europe remains the second largest cocaine market worldwide</td>
<td>Trafficking of cannabis, both herb and resin, remains an issue in Western and Central Europe, mostly intra-regional although there are substantial imports of cannabis resin from North Africa</td>
<td>Cocaine use paused in 2020 during the COVID-19 pandemic but it appears to have rebounded in 2021 in Western and Central Europe</td>
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<tr>
<td>Amphetamine is the second most used stimulant in Europe after cocaine</td>
<td>Western and Central Europe remains a hub for manufacture of synthetic drugs, in particular “ecstasy” and amphetamine, although there are signs of an expansion of the manufacture of methamphetamine in the subregion</td>
<td>THC content has increased by 50 per cent in herbal cannabis and nearly tripled in cannabis resin over the past decade in Western and Central Europe, causing increasingly apparent health harms</td>
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<tr>
<td>Recent trends point to an increase in methamphetamine use in the region</td>
<td>Hydra Market, the world’s largest “Russian speaking” darknet market, emerged as the world’s largest market on the dark web in 2019 and remained a major player until its dismantlement in 2022</td>
<td>There has been an increase in the number of people in treatment for cannabis use disorders in Western and Central Europe; around one-third of people accessing drug treatment services are being treated for cannabis use</td>
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<tr>
<td>Europe remains a major consumer market for “ecstasy”</td>
<td>Opioids remain the main drug type for which people are in drug treatment in Europe, but cannabis follows closely</td>
<td>In Eastern Europe, the NPS market is expanding, likely owing to the expansion of online supply, in particular of cathinones</td>
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<tr>
<td>Use of NPS, which appears to remain contained in Western and Central Europe, seems to be increasing in Eastern Europe, where it has become more common</td>
<td>Use of NPS, which appears to remain contained in Western and Central Europe, seems to be increasing in Eastern Europe, where it has become more common</td>
<td>Drug injecting and infectious diseases contamination are a key concern in Eastern Europe where 1.3 percent of the population is a PWID (1.7 million), the highest prevalence rate of PWID among the population worldwide. More than a quarter of these PWID are living with HIV, the second highest prevalence rate of HIV among PWID in the world</td>
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<tr>
<th>OCEANIA</th>
<th><strong>Demand</strong></th>
<th><strong>Supply</strong></th>
<th><strong>Key issues</strong></th>
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<tr>
<td>Past-year use of cocaine in the subregion of Australia and New Zealand remains the highest worldwide</td>
<td>Seizures of heroin and morphine and of cocaine increased in 2020</td>
<td>Methamphetamine has become the main drug of concern in Oceania, where half of the people in treatment are being treated for methamphetamine use disorders</td>
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<tr>
<td>However, consumption of the drug (based on wastewater analysis) is lower than in other parts of the world, suggesting that most users of cocaine are occasional users</td>
<td>Overall methamphetamine seizures were the lowest since 2012, however, border seizures were at a record high in 2019-2020, suggesting a growing role of imports</td>
<td>Annual prevalence rates of methamphetamine use in the general population of Australia have fallen, but among remaining users, consumption has become more intensive and is causing greater health harms</td>
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<tr>
<td>Cannabis use is significantly higher than the global average, with prevalence of use exceeding 10 per cent in the subregion of Australia and New Zealand</td>
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<tr>
<td>People regularly using cannabis were likely to have increased consumption during the COVID-19 pandemic in Australia</td>
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<td>People regularly using cannabis were likely to have increased consumption during the COVID-19 pandemic in Australia</td>
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<tr>
<td>Australia and New Zealand had clear drops in use of stimulants during periods of lockdown, potentially due to the lack of availability</td>
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FINDINGS AND CONCLUSIONS & POLICY IMPLICATIONS
**FINDINGS AND CONCLUSIONS**

Cocaine manufacture reached a record high in 2020.

Trafficking of cocaine likely continued to increase in 2020 despite the pandemic as global cocaine seizures (unadjusted for purity) increased to a new record high of 1,424 tons.

Trafficking by sea, mainly in shipping containers, is growing, accounting for nearly 90 per cent of cocaine seized globally in 2021.

Seizure data suggest that trafficking is expanding to other regions outside the two main markets, North America and Europe, with increased levels of trafficking to Africa and Asia.

Multiple indicators point to an overall increase in cocaine use over the past decade and early indications suggest that use is rising again in 2021 after a decline during the pandemic.

**POLICY IMPLICATIONS**

Tailor holistic drug-supply reduction strategies encompassing economic development and alternative livelihoods in countries where coca bush is illicitly cultivated. Target responses more effectively by improving the evidence base on the short- and long-term impacts of measures such as forced and voluntary crop eradication.

Direct law enforcement resources to target maritime and container trafficking.

Increase technical assistance to enhance the capacity of law enforcement authorities to detect and interdict cocaine in Africa and Asia, in locations where cocaine trafficking may be relatively new or interdiction capacities low.

Promote and facilitate post-seizure backtracking investigations with improved international cooperation to identify and dismantle transnational organized criminal groups involved in drug trafficking and related financial flows.

Tackle demand by increasing investment in evidence-based prevention to improve awareness, particularly among youth, of the health harms posed by cocaine. Invest in health interventions, as well as research into treating cocaine dependence.
SIGNIFICANT INDIVIDUAL COCAINE SEIZURES IN TRANSIT REGIONS OR EMERGING COCAINE MARKETS: AFRICA AND ASIA, 2020-2021

Cocaine seizures (kg) 2020-2021

- ≤ 1
- >1 - 10
- >10 - 100
- >100 - 1,000
- >1,000 - 8,200
- Excluded from analysis /no data available

The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. Dotted line represents approximately the line of control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties.
WHILE THE MAJORITY OF PEOPLE WHO USE DRUGS ARE MEN, WOMEN USE SOME DRUG TYPES NEARLY AS MUCH AS MEN; AND WOMEN CONTINUE TO BE UNDERREPRESENTED IN DRUG TREATMENT

FINDINGS AND CONCLUSIONS

The large majority of people who use drugs continue to be men, but women make up more than 40 per cent of people who use ATS and who engage in non-medical use of pharmaceutical stimulants, pharmaceutical opioids, sedatives and tranquillisers.

Women who use drugs tend to progress to drug use disorders faster than do men.

The gender treatment gap remains a global problem and is particularly acute for women who use ATS. Almost one of every two past-year ATS users is a woman, but only one in five people in treatment for ATS disorders is a woman.

Cannabis, the most used drug worldwide, is also used more by men than by women, but the gender gap is narrowing, notably in North America, where the level of use is particularly high.

POLICY IMPLICATIONS

Invest in research to better understand the role of sex and gender in pathways to drug use and drug use disorders in relation to different drugs and to better inform prevention strategies that effectively respond to vulnerabilities and risk factors.

Expand gender-sensitive services for drug treatment and HIV prevention, treatment and care, following the UNODC/WHO International Standards for the Treatment of Drug Use Disorders and ensuring that women seeking to access services feel welcome. Provide such interventions to ensure that women feel and are safe and not stigmatized, can exercise their childcare responsibilities and are supported with regard to other social, economic or legal needs, have access to sexual and reproductive health care and can receive support to address trauma and comorbid mental health disorders, giving priority care to pregnant women.
WHILE THE MAJORITY OF PEOPLE WHO USE DRUGS ARE MEN, WOMEN USE SOME DRUG TYPES NEARLY AS MUCH AS MEN; AND WOMEN CONTINUE TO BE UNDERREPRESENTED IN DRUG TREATMENT

Users of cannabis by sex and region

<table>
<thead>
<tr>
<th>Region</th>
<th>Men</th>
<th>Women</th>
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<tbody>
<tr>
<td>Africa</td>
<td>88%</td>
<td>12%</td>
</tr>
<tr>
<td>Asia</td>
<td>91%</td>
<td>9%</td>
</tr>
<tr>
<td>Australia and New Zealand</td>
<td>63%</td>
<td>37%</td>
</tr>
<tr>
<td>Caribbean</td>
<td>80%</td>
<td>20%</td>
</tr>
<tr>
<td>Central America</td>
<td>80%</td>
<td>20%</td>
</tr>
<tr>
<td>South America</td>
<td>71%</td>
<td>29%</td>
</tr>
<tr>
<td>South-East Europe</td>
<td>80%</td>
<td>20%</td>
</tr>
<tr>
<td>North America</td>
<td>58%</td>
<td>42%</td>
</tr>
<tr>
<td>West and Central Europe</td>
<td>66%</td>
<td>34%</td>
</tr>
</tbody>
</table>

Users of selected drug groups by sex

<table>
<thead>
<tr>
<th>Drug Group</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opioids</td>
<td>85%</td>
<td>15%</td>
</tr>
<tr>
<td>Cocaine</td>
<td>73%</td>
<td>27%</td>
</tr>
<tr>
<td>Cannabis</td>
<td>70%</td>
<td>30%</td>
</tr>
<tr>
<td>New psychoactive substances</td>
<td>70%</td>
<td>30%</td>
</tr>
<tr>
<td>Ecstasy-type substances</td>
<td>62%</td>
<td>38%</td>
</tr>
<tr>
<td>Non-medical use of pharmaceutical stimulants</td>
<td>55%</td>
<td>45%</td>
</tr>
<tr>
<td>Amphetamines</td>
<td>55%</td>
<td>45%</td>
</tr>
<tr>
<td>Non-medical use of pharmaceutical opioids</td>
<td>53%</td>
<td>47%</td>
</tr>
<tr>
<td>Non-medical use of sedatives and tranquilizers</td>
<td>51%</td>
<td>49%</td>
</tr>
</tbody>
</table>
FINDINGS AND CONCLUSIONS

The majority of people being treated for drug use disorders in Africa and Latin America are under the age of 35.

Young people aged 15–16 have a global annual prevalence of cannabis use of 5.8 per cent, compared with 4.1 per cent of the population aged 15–64.

Young people typically report a higher level of drug use than do adults, and in many countries drug use levels among young people are higher today than in past generations.

POLICY IMPLICATIONS

Develop national drug prevention systems that reach children as early as possible in their development and focus on building resilience in accordance with the UNODC/WHO International Standards on Drug Use Prevention, helping the children of today grow into the healthy adolescents of tomorrow.

Reach out to and involve adolescents, disseminating prevention messages on social media and other online platforms to counter the use of these channels for promoting drug use and facilitating the illicit drug supply, in order to minimize drug-related harms and discourage consumption.

Promote prevention and treatment options for young people who use drugs and young people with drug use disorders that are backed by evidence, including:

- Mental health services for people with mental health disorders diagnosed at an early age, along with support to their families in managing the situation regarding such disorders, including through parenting skills training;
- Screening, brief interventions and health services referral, mainstreamed in the community and in education systems;
- Family therapy.

For children and youth that have been exposed to drugs at a very young age and/or are in particularly deprived circumstances, such as street children, provide educational opportunities, vocational skills training and other socioeconomic support.
GLOBAL CANNABIS USE ACCORDING TO AGE AND GENDER

<table>
<thead>
<tr>
<th>Age</th>
<th>Gender</th>
<th>Age</th>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-16</td>
<td>Male</td>
<td>17-24</td>
<td>Female</td>
</tr>
<tr>
<td>25-34</td>
<td>Male</td>
<td>35-64</td>
<td>Female</td>
</tr>
</tbody>
</table>
FINDINGS AND CONCLUSIONS

Opioids remain the most lethal drugs. In North America, fentanyls are driving overdose deaths to new record highs: 91,799 overdose deaths were recorded in the United States in 2020, and the provisional estimate for 2021 is 107,622 deaths. Canada reported a 95 per cent increase in opioid overdose deaths in the first year of the coronavirus disease (COVID-19) pandemic.

While cannabis is rarely associated with direct drug-related mortality, it accounts for a substantial share of global drug-related harm, due in large part to its high prevalence rates. Some 40 per cent of countries reported cannabis as the drug related to the greatest number of drug use disorders, and 33 per cent reported it as the main drug for those in drug treatment.

Increases in cannabis use are posing new burdens to healthcare systems. In Africa and some countries in Latin America and the Caribbean, the largest proportion of people in drug treatment are those seeking help for cannabis use disorders.

As the potency of cannabis products has increased, together with regular and frequent cannabis use, cannabis use disorders and psychiatric comorbidities have also risen in Western Europe. Cannabis use accounted for 31 per cent of people who entered specialized drug treatment services in the European Union in 2019.

But there are clear regional differences in the primary drug reported by people entering drug treatment: in Eastern and South-Eastern Europe and in most of Asia, opioid use disorders were the leading cause for people in drug treatment; in most of Latin America, it was cocaine use disorders; and in East and South-East Asia and Australia and New Zealand, it was ATS, in particular methamphetamine.

DIFFERENT DRUGS POSE DIFFERENT DEMANDS ON HEALTHCARE SYSTEMS

POLICY IMPLICATIONS

Provide more resources to increase access to evidence-based and voluntary services, in accordance with the UNODC/WHO International Standards for the Treatment of Drug Use Disorders.

Integrate outreach, psychosocial, pharmacological, health-care and social support services to better protect the health of people who use drugs and people with drug use disorders and promote their recovery, while developing quality assurance mechanisms to promote effectiveness, and ensure that services are humane and avoid punishment or stigmatization.

To prevent opioid overdose deaths, promote opioid-assisted therapy, supporting recovery and preventing overdose, as well as the community-based provision of naloxone, allowing for the safe, on-the-spot management of opioid overdoses.

Invest in research on the treatment of stimulant use disorders, while advancing the dissemination of psychosocial therapies that have been found to be effective, such as contingency management, cognitive behavioural therapy and family therapy.

As more people are initiating the use of and regularly using cannabis, and the costs of cannabis use to public health systems may be higher than generally assumed, develop a clear and comprehensive methodology to more accurately estimate the social costs of cannabis use and its impact on public health.

In order to leave no one behind in the provision of drug-related health services, ensure that drug treatment services, as well as HIV prevention, treatment and care, for people who use drugs are available in prison settings.
Opioid use disorders cost an estimated 12.9 million years of “healthy” life lost due to disability and premature death in 2019, equivalent to 71% of years of “healthy” life lost due to drug use disorders.

Opioids account for 69% of deaths due to drug use disorders (direct drug-related deaths) in 2019.

Opioids account for 40% of treatment for drug use disorders in 2020.

Source: UNODC, responses to the annual report questionnaire and Institute for Health Metrics and Evaluation, “Global Burden of Disease Study Data Resources: GBD Results Tools”.

GLOBAL BURDEN OF HARM DUE TO OPIOID USE DISORDERS
INSIGHTS
FINDINGS AND CONCLUSIONS

Cannabis legalization appears to have accelerated the upwards trends in reported daily use of the drug, with a pronounced increase in reported frequent use of high-potency products among young adults. In contrast, the prevalence of cannabis use among adolescents has not changed much.

The proportion of people with psychiatric disorders and suicides associated with regular cannabis use has increased, as has the number of hospitalizations due to cannabis use disorders.

Cannabis products have diversified, and average levels of THC in the various cannabis products have continued to increase, to levels up to 60 per cent in some markets.

The growing influence and investments of large corporations, including those in the alcohol and tobacco sectors, is evident in the legal cannabis industry. Tax revenues from the legalized market have continued to rise. The illegal cannabis market is shrinking in some jurisdictions, but it continues to exist alongside legal markets.

Legalization has led to a major reduction in the number and rates of arrest of people for cannabis-related offences. However, since possession of cannabis remains a criminal offence for minors, legalization has not led to a substantial reduction in youth arrest rates.

POLICY IMPLICATIONS

Continue to monitor the impact of cannabis legalization, in particular on public health, the rule of law, public safety and the parallel illegal market, to better understand associated social and economic costs.

Invest in research into the effects of cannabis use, especially the health consequences of the use of cannabis products with high THC content, including on youth, women and women during pregnancy.

Address misperceptions of the risks of cannabis use through evidence-based prevention messages, targeting youth in particular.

Prioritize public health and safety as commercial interests lobby to expand the market for legal cannabis. Draw from the lessons learned from the tobacco, alcohol and ultra-processed food industries, as well as the pharmaceutical industry and documented cases where the pursuit of commercial interests has targeted vulnerable or disadvantaged groups, and competed with public health concerns.
EARLY INDICATIONS SUGGEST THAT CANNABIS LEGALIZATION HAS HAD A WIDE-RANGING IMPACT ON PUBLIC HEALTH AND SAFETY, MARKET DYNAMICS, COMMERCIAL INTERESTS AND CRIMINAL JUSTICE RESPONSES.

Source: UNODC, 2022

IMPACT OF CANNABIS LEGALIZATION

- Products
- Public health
- Economy
- Driving
- Illicit market
- Replacement
- Arrests
- Crime
The impact of illicit drugs on the environment is not significant at the global level, but the effects can be significant in terms of the local, community or individual-level impact.

Available studies suggest that drug supply chains have a large carbon footprint impact per quantity produced. For example, 1 kilogram of cocaine has a carbon footprint 30 times greater than 1 kilogram of cocoa beans.

The carbon footprint of cannabis grown indoors is, mainly due to its energy use, an average of 16 to 100 times greater than that of outdoor cannabis.

Illicit drug crop cultivation often takes place in fragile ecosystems that have a protected status, such as national parks and forest reserves, and it can act as a driver or catalyst of deforestation. Deforestation associated with illicit coca cultivation can be substantial.

For some communities, the amount of drug waste produced during the manufacture of synthetic drugs can be substantial. The waste generated during the synthesis process of synthetic drugs such as amphetamine, methamphetamine and MDMA is between 5 and 30 times the volume of the end product. The use of pre-precursors and pre-pre-precursors increases the amount of waste.

The dumping and discharge of waste created in drug manufacture can have an impact on the soil, water and air, with indirect effects on organisms, animals and the food chain.

Cleaning of seized synthetic drug-related waste, storage sites or manufacturing laboratories is costly and can create risks for public safety.

Some alternative development projects have included environmental protection components, such as reforestation and agroforestry, while others have pioneered instruments such as carbon credits and schemes involving payment for environmental services.

Mainstream the objective of “do no harm to the environment” in drug policy responses at the global, national and local levels to minimize their environmental impact and contribute directly or indirectly to the protection of the environment and biodiversity, and climate change mitigation.

Develop new, dedicated international standards to support Member States and the international community in systematically integrating environmental protection into the design and monitoring of alternative development programmes.

Such standards can build on recent experience and existing tools, such as the FAO Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security of 2012, the United Nations Guiding Principles on Alternative Development of 2013 and the FAO environmental and social management guidelines of 2015.

Guiding standards should seek to bring the environmental impact of the illicit cultivation of plant-based drugs into the broader debate about agricultural production. Alternative development programmes should balance environmental concerns with commercial, production-related objectives, considering choices between intensive agriculture and organic farming, land sparing and land sharing, and small- and large-scale farming.

Specific complementary strategies that can be adopted in alternative development programmes include carbon credit schemes, payment for environmental services and agroecology, approaches that can strengthen the environmental components of programmes while also bringing other benefits such as income generation and access to new markets.

Adopt legal frameworks that encompass the environmentally responsible disposal of equipment and precursors and other chemicals used in the clandestine manufacture of drugs, and enhance the capacity of law enforcement authorities to safely handle and dispose of such materials, as well as to destroy seized drugs.

Undertake targeted research to better understand the extent and dynamics of the links between drug trafficking and deforestation, including in relation to illicit cattle ranching and other money-laundering-related investment. The longer-term effects of drugs on biodiversity require closer examination, including to determine the effects of long-term or chronic exposure of wildlife to drugs, their metabolites or drug waste in wildlife ecosystems, as well as effects along the food chain, for example, the impacts on people who consume exposed fish.
DISTRIBUTION OF FACTORS CONTRIBUTING TO THE CARBON FOOTPRINT OF COCAINE PRODUCTION IN THE REGIONS OF CATATUMBO AND PUTUMAYO, COLOMBIA

ROUTES OF SYNTHETIC DRUG PRODUCTION WASTE TO THE ENVIRONMENT

- (Pre-)precursors, reaction media
- Drug production laboratory
- Transportation
- Solid/Liquid waste
- Soil
- Groundwater
- Surface water
- Sediment
- Drugs
  - Transport/distribution
  - Consumption
  - Human excretion
  - Wastewater treatment plant
FINDINGS AND CONCLUSIONS

Illicit drug economies can flourish in situations of conflict and weak rule of law, and can, in turn, prolong or fuel conflict.

Plant-based drugs such as cocaine and opiates have been used in the past by parties to finance conflict, for example, in Colombia and Afghanistan.

Parties to a conflict have also used the illicit drug trade to generate income by levying “taxes” on the drug trade, for example, in the Sahel.

Information from the Middle East and South-East Asia suggests that conflict situations can act as a magnet for the manufacture of synthetic drugs, which can be manufactured anywhere; this effect may be greater when the conflict area is near large consumer markets. The number of dismantled amphetamine laboratories in Ukraine rose from 17 in 2019 to 79 in 2020, the highest number of seized amphetamine laboratories reported in any country in 2020. The laboratories were likely to have been small, but the high number seized before the war indicates capacity to produce synthetic drugs in the country, which could expand as the conflict persists.

Conflicts may also disrupt and shift drug trafficking routes, as seen during the Yugoslav wars with heroin trafficking routes through the Balkans (which remain among the key trafficking routes for opiates from Afghanistan), and more recently in Ukraine, where, accounts suggest, drug trafficking may have decreased since early 2022.

POLICY IMPLICATIONS

Integrate drug policy approaches into conflict and peacebuilding responses, and when addressing crises and weak rule of law, to stop organized crime and other groups from exploiting conflict situations and prevent the illicit drug trade from contributing to violence and instability.

Encourage more complex and deep investigation of transnational crimes, aimed at revealing and dismantling related financial flows, with a view to minimizing the potential for using the proceeds of illicit drug manufacture and trafficking to fuel conflicts.

Monitor conflict situations for emerging drug threats: seizure data suggest that heroin trafficking through Ukraine, as well as amphetamine manufacture in the country, had been increasing prior to the start of the war in February 2022. Continuing conflict may have disrupted and/or displaced these flows.

Strengthen information-sharing and law enforcement capacity-building to prevent and counter challenges emerging from conflict situations, in neighbouring countries but also in areas that may serve as alternate drug trafficking routes.
WEAK RULE OF LAW IN CONFLICT SITUATIONS PROVIDES OPPORTUNITIES TO THE ILLICIT DRUG TRADE

- drug trafficking routes are disrupted
- parties to the conflict benefit by taxing the drug trade
- conflict acts as a “magnet” for the manufacture of synthetic drugs
- illicit drug economies flourish
- existing plant-based drugs production is used to finance the conflict
DYNAMICS TO WATCH
SOME EVIDENCE IS EMERGING ON THE LONG-TERM OUTCOME OF FORCED AND VOLUNTARY ERADICATION

DYNAMICS TO WATCH

Data assessing the effectiveness and sustainability of different methods of eradicating illicit drug crops remain scant. A matched difference-in-differences analysis to estimate the effects of forced and voluntary eradication on areas of coca cultivation in Colombia found the following:

- **Forced eradication** resulted in an initial decrease in illicit drug crop cultivation due to the direct removal of coca bush. However, subsequently, cultivation increased at a higher rate compared to similar areas where no forced eradication took place. Over the next 10 years, the “eradication gain” – the gap in illicit drug crop cultivation between areas that underwent eradication and areas that did not – is projected to disappear altogether, suggesting that one-off forced eradication yields no long-term benefits.

- **Voluntary eradication**, conducted in coordination with alternative development interventions, led to an initial increase in cultivation due to “perverse incentive” effects (as some farmers may believe that they need to illicitly cultivate coca bushes to participate in the project). But over time, illicit drug crop cultivation decreased at a greater rate in areas with voluntary eradication and alternative development than in areas without. The “eradication gain” is projected to continue increasing over the next decade.

Forced eradication
resulted in an initial decrease in illicit drug crop cultivation due to the direct removal of coca bushes. However, cultivation later increased at a higher rate compared to similar areas where no forced eradication took place.

Voluntary eradication
conducted along with alternative development interventions led to an initial increase due to “perverse incentive” effects but over time, illicit drug crop cultivation decreased at a higher rate in areas with voluntary eradication.
Future developments in the global opiate market largely depend on the situation in Afghanistan, which accounted for 86 per cent of illicit opium production in 2021.

Global opium production has followed a long-term upward trend over the past two decades, and in 2021 production was up 7 per cent from the previous year, primarily as a result of higher opium yields in Afghanistan. The 2021 harvest took place from April to July, before the takeover by the de facto Taliban authorities in August.

The socioeconomic conditions faced by people in Afghanistan, who are experiencing a prolonged humanitarian crisis, may act as an incentive to increase illicit opium poppy cultivation. Opium prices have risen since the beginning of August 2021, which may also have an impact.

The effects of the ban on opium poppy cultivation, announced in Afghanistan in April 2022, and its application and enforcement remain to be seen, but changes in opium production in Afghanistan will have implications for opiate markets in virtually all regions of the world.
Methamphetamine manufacture and use have continued to expand beyond “traditional” markets in East and South-East Asia and North America, notably in South-West Asia and in Latin America.

Methamphetamine manufacture and use have risen in Afghanistan in recent years, and the drug is being trafficked to the wider region. Accounts suggest that use of methamphetamine and “captagon” tablets is rising in South-West Asia and beyond, in particular in Iraq, although no recent estimates are available. Seizures in the Gulf suggest that a methamphetamine market may emerge there, too.

The dramatic expansion of methamphetamine markets is illustrated in Mexico, for example, where treatment admissions for the drug have outnumbered those for alcohol, and where people entering treatment for methamphetamine use disorders increased by 218 per cent from 2013 to 2020.

Seizures of the drug and its growing popularity among some user groups suggest that a methamphetamine market is also expanding in Western and Central Europe.

Clandestine laboratories are becoming bigger and are manufacturing larger quantities.
The market for “captagon”, an illicitly manufactured substance containing various concentrations of amphetamine, continues to flourish in the Near and Middle East, with seizures reaching a record high in 2020.

The departure point for trafficking continues to be in the Levant (the Syrian Arab Republic and Lebanon), with destinations in the Gulf countries reached either directly by land and sea, or indirectly through Europe and possibly North Africa. Recent seizures in East Asia and West Africa point to further geographical expansion of the “captagon” market.

**DYNAMICS TO WATCH**

**THE “CAPTAGON” MARKET CONTINUES TO FLOURISH**

**MAIN TRAFFICKING ROUTES FOR COUNTERFEIT “CAPTAGON” IN THE MIDDLE EAST AND NORTH AFRICA**
While darknet markets continue to account for a very small share of drug transactions, their use has been growing over the past decade, and markets are no longer restricted to Western countries as they also affect Eastern Europe, Latin America, Asia and Africa. Although sales volumes on the dark web have fluctuated over the years, reflecting the frequent emergence and demise of individual darknet markets, available data suggest that drug-related sales on the dark web increased in 2020 from 2019, and a smaller increase was observed in 2021.

Research shows a marked increase in people reporting purchasing drugs on the dark web over the period from January 2014 to January 2021 followed by a decline until January 2022, likely because some darknet markets were dismantled by the authorities or underwent exit scams, while alternative platforms, such as social media and encrypted messenger services, may have also played a role.

**DAILY SALES (MINIMUM, MOSTLY DRUGS) ON 38 MAJOR GLOBAL DARKNET MARKETS, 2011–2021**

Source: UNODC analysis based on dark web data (see online Methodological Annex).

Note: Data refer to minimum stacked market sales of different products and services, of which drugs accounted for that percent, and are presented as seven-day averages. All data shown reflect minimum sales as the current web-crawler techniques do not cover all sites on a specific market and because not all customers leave feedback, information which is used to arrive at total sales figures.
TRAFFICKING IN SYNTHETIC DRUGS IS GROWING FASTER THAN TRAFFICKING IN PLANT-BASED DRUGS

DYNAMICS TO WATCH

Trafficking in synthetic drugs, notably ATS, is growing faster than trafficking in plant-based drugs over the past two decades, according to global seizure data.

Global seizures of ATS rose rapidly over the previous decade. Methamphetamine seizures rose fivefold; amphetamine, fourfold; and "ecstasy", threefold.

Precursors used in the manufacture of synthetic drugs continue to change rapidly as chemicals become controlled and pre-precursors and "designer precursors" emerge.

LONG-TERM TRENDS IN QUANTITIES OF DRUGS SEIZED, 1998–2020

Index (1998 = 100)

ATS
Opioids
Opioids estimates
Opiates
Cocaine
Cannabis

Source: UNODC, responses to the annual report questionnaire.
Notes: Data based on kilogram equivalents. "Cannabis" includes cannabis herb and cannabis resin. "Opiates" include opium expressed in heroin equivalents, plus morphine and heroin. "Opioids" include opiates plus pharmaceutical opioids and other opioids. "Cocaine" includes cocaine hydrochloride, "crack" cocaine, cocaine base, paste and salts, coca paste/slash. ATS include methamphetamine, amphetamine, "ecstasy", and "designer precursors" emerge.
There are signs that drug use patterns may have become more harmful during the pandemic. At the same time, there was less access to services (prevention, treatment and prevention of infectious diseases and overdose) for people who use drugs.

Data show the shortage in drug treatment provision during 2020 in all regions.

More recent data from studies into the early impact of the COVID-19 pandemic on drug use show the frequency of cannabis use and the quantities used have increased, while the number of users has remained stable.

Relapse, as well as the risk of relapse and drug use-related risk behaviours, increased in several countries during the pandemic.

Women who use drugs may be disproportionately affected by the pandemic.

The decrease in the use of the drugs particularly consumed at recreational venues during the pandemic was likely short-lived, and early data suggest that such use may have already rebounded.

**IMPACT OF THE COVID-19 PANDEMIC ON DRUG USE**

- Increases in overall cannabis consumption, mostly due to increased frequency and quantity used by existing users rather than recruitment of new users
- Increases in non-medical use of sedatives, such as benzodiazepines, tranquilizers and other psychiatric pharmaceuticals
- Decreases in drug use of adolescents which coincided with lockdown periods
- Temporary decreases of drug use at recreational venues during lockdowns, in particular MDMA
- Regular drug use less affected, but users with drug use disorders more often experienced withdrawal and relapse. Greater willingness to access treatment was not met with sufficient service availability
- Service provision was disrupted with drug use prevention, drug-related treatment and other services for people who use drugs experiencing closures, limited capacity and/or lower in-person attendance
- Lower COVID-19 vaccination uptake in people who use drugs despite them being a priority group for this intervention, associated with lower trust in the medical system and access barriers
- Innovation in service delivery (such as tele-medicine) may be used also after the pandemic, but need more research for successful implementation
LATEST DATA AND TRENDS
In 2020, 1 in every 18 people aged 15–64 worldwide – an estimated 284 million people (5.6 per cent of the population) – had used a drug in the past 12 months.

The number of people who used drugs (284 million) in 2020 was 26 per cent higher than in 2010, partly because of world population growth.

The coverage of interventions for the treatment of drug use disorders remains low overall. Implementation of scientific evidence-based drug prevention interventions remains low as well, especially in middle- and low-income countries.

**GLOBAL ESTIMATES OF THE NUMBERS OF DRUG USERS IN MILLIONS (2020)**

<table>
<thead>
<tr>
<th>Drug Type</th>
<th>Estimate (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cannabis</td>
<td>209 (149–265)</td>
</tr>
<tr>
<td>Opioids</td>
<td>61 (37–78)</td>
</tr>
<tr>
<td>Amphetamines</td>
<td>34 (29–41)</td>
</tr>
<tr>
<td>Cocaine</td>
<td>21 (18–26)</td>
</tr>
<tr>
<td>“Ecstasy”</td>
<td>20 (9–36)</td>
</tr>
</tbody>
</table>

Source: UNODC, responses to the annual report questionnaire.
Large disparities remain in the availability of pharmaceutical opioids for medical consumption despite a global increase in available doses over the last two decades. The number of standardized defined daily doses of opioids (controlled under the 1961 Single Convention) available per 1 million inhabitants in North America in 2020 was 7,500 times higher than in West and Central Africa, even after the decline in availability in North America since 2013.

The largest quantities of pharmaceutical opioids available for medical consumption in 2020, as expressed in standard doses, were of codeine, followed by hydrocodone and, excluding preparations, hydrocodone, followed by fentanyl, methadone, buprenorphine, oxycodone and morphine.

*NORTH AMERICA HAS 7,500 TIMES MORE DOSES OF PAIN MEDICATION* THAN WEST AND CENTRAL AFRICA

*opioids controlled under the Single Convention of 1961
An estimated 11.2 million people worldwide injected drugs in 2020. One in every eight people who injected drugs (PWID) were living with HIV (1.4 million people), and nearly half of PWID were living with hepatitis C (an estimated 5.5 million people), while 1.1 million PWID were living both with HIV and hepatitis C.
According to the latest estimates, cocaine manufacture grew 11 per cent from 2019 to a new record high of 1,982 tons in 2020, while trafficking of cocaine continued to increase in 2020.

Women fulfil a wide range of roles in the global cocaine supply chain, including working in coca cultivation, transporting small quantities of drugs, selling to consumers and smuggling into prisons.

<table>
<thead>
<tr>
<th>GLOBAL CULTIVATION 2020</th>
<th>GLOBAL PRODUCTION 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>234,200 ha</td>
<td>1,982 tons at 100% purity</td>
</tr>
<tr>
<td>328,000 x</td>
<td>Change from previous year +11%</td>
</tr>
<tr>
<td>Change from previous year 0%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GLOBAL SEIZURES 2020</th>
<th>GLOBAL NUMBER OF USERS 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>of varying purity</td>
<td>21 million</td>
</tr>
<tr>
<td>1,424 tons</td>
<td></td>
</tr>
</tbody>
</table>

Change from previous year +4.5%
THE TWO EPIDEMICS OF NON-MEDICAL USE OF OPIOIDS – FENTANYL IN NORTH AMERICA AND TRAMADOL IN NORTH AND WEST AFRICA, THE MIDDLE EAST AND SOUTH-WEST ASIA – CONTINUE TO POSE GREAT HEALTH RISKS

LATEST DATA AND TRENDS

Trafficking of synthetic opioids continues. Tramadol accounted for 55 per cent of reported quantities of pharmaceutical opioids seized in 2016—2020, followed by codeine (38 per cent), mostly seized in the form of cough syrups, as well as fentanyl and its analogues (3 per cent). However, when those seizure amounts are converted into defined daily doses, the order of importance becomes clear: 90 per cent of defined daily doses of synthetic opioids seized in 2020 were of fentanyls.

The two epidemics of non-medical use of opioids, one related to illicitly manufactured fentanyls in North America and the other one involving non-medical use of tramadol in North and West Africa, the Near and Middle East and South-West Asia, continue to pose great health risks.

In Africa, non-medical use of tramadol has likely been spreading, as reflected in increasing drug treatment demand in some countries. There is indication of non-medical use of tramadol in other regions as well, in particular South Asia, South-East Asia, Central Asia, North America and Europe.

In the United States and Canada, overdose deaths, predominantly driven by use of fentanyls, remain at record high levels. Fentanyls are typically laced with heroin or other adulterated drugs, and they are also sold in falsified medicines. Use of fentanyls has been reported by several other countries, although currently, there are no indications of an epidemic of non-medical use and related health consequences outside North America. However, fentanyls remain a potential threat in opioid markets. The spread of fentanyls could occur rapidly if market dynamics were to result in the shortage of the main opioid used in any of the markets.
MAIN HEALTH CONSEQUENCES OF NON-MEDICAL OPIOID USE

After 2 years (median) (Australian and US studies)
- Between 10-90% will progress to injecting use and will transition in and out of injecting. (studies from US and Europe)

Within 1 or 2 further years (median) (Australian and US studies)
- Contracting hepatitis C (about half of PWID, global estimate)
- Some users will contract HIV (12.4% of PWID, global estimate)
- In an optimal situation, users will enter treatment at this stage and circle in and out of treatment seeking improvement in their state. (based on Zurich study)

If untreated, liver damage, liver failure, cirrhosis, liver cancer, and even death may follow.

Between 10-90% will progress to injecting use and will transition in and out of injecting. (studies from US and Europe)

Almost half of users will develop opioid use disorders and over 20% will develop dependence syndrome. (Australian and US studies)

Almost half of users will personally experience non-fatal overdose and many more may witness one in a fellow user. (systematic review)

PREMATURE DEATH
Mortality rate is about 10-20 times higher in opioid users than among the general population of the corresponding age and sex. A quarter to half of opioid users followed up for 20 years were deceased at that time. (European study, review of literature)

About a third of users will cease the non-medical use of opioids within 30 years. Substitution treatment improves outcomes, incarceration worsens them. (review of literature)

Opioid users may experience other somatic risks, for example: opioid-induced bowel syndrome, opioid-induced hyperalgesia, opioid-associated liver fibrosis, opioid-related leukoencephalopathy and opioid amnestic syndrome. (review of literature)
Trafficking of methamphetamine continues to increase in volume and to spread.

The number of countries reporting seizures of methamphetamine rose from 84 countries in the period 2006–2010 to 117 countries in the period 2016–2020, suggesting a significant geographical spread in trafficking of the drug.

Quantities of methamphetamine seized grew fivefold between 2010 and 2020. In the two largest markets for methamphetamine, North America and East and South-East Asia, seizures reached a record high in 2020.
The largest seizures of synthetic NPS in 2020 were reported by countries in East and South-East Asia.

The spread of synthetic NPS in the period 2015—2020 has been particularly pronounced in countries in Eastern Europe and Central Asia and Transcaucasia.

A recent trend in Latin America and the Caribbean is the emergence of blotting papers (“stamps”) containing various NPS with hallucinogenic effects.

NPS opioids are among the most harmful groups of NPS. The number of opioid NPS found on markets worldwide grew from just one substance in 2009 to 86 substances in 2020.

In 2020, synthetic opioids were the third largest group of NPS in terms of the number of substances reported by Member States.
LATEST DATA AND TRENDS

Global opium production continued its long-term upward trend, increasing 7 per cent from 2020 to 2021, to 7,930 tons, although the global area under opium poppy cultivation fell by 16 per cent to 246,800 ha in 2021. The increase was largely attributable to greater opium yields in Afghanistan, which resulted in an 8 per cent increase in opium production. Global heroin manufacture remains stable at an estimated 495–755 tons.

Global seizures of opiates increased by 40 per cent from 2019 to 2020, reaching a new record high.
amphetamine-type stimulants — a group of substances composed of synthetic stimulants controlled under the Convention on Psychotropic Substances of 1971 and from the group of substances called amphetamines, 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.

fentanyl — 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.
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, Türkiye\(^a\) and Kosovo\(^b\)

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, Faroe Islands, Gibraltar and Holy See

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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\(^a\) Further to the communication dated 31 May 2022 from the permanent mission addressed to the Executive Office of the Secretary-General, the country name was changed from the former name of the Republic of Turkey (former short form: Turkey), with immediate effect. The *World Drug Report* 2022 was prepared before that date and thus uses the former name in its reporting and analysis, except for the maps that were finalized more recently.

\(^b\) References to Kosovo shall be understood to be in the context of Security Council resolution 1244 (1999).
Consisting of five separate booklets, the *World Drug Report 2022* provides an in-depth analysis of global drug markets and examines the nexus between drugs and the environment within the bigger picture of the Sustainable Development Goals, climate change and environmental sustainability.

Booklet 1 summarizes the four subsequent booklets by reviewing their key findings and highlighting policy implications based on their conclusions. Booklet 2 provides an overview of the global demand for and supply of drugs, including an analysis of the relationship between illicit drug economies and situations of conflict and weak rule of law. Booklet 3 reviews the latest trends in the global markets for opioids and cannabis at the global and regional levels, and includes a discussion of the potential impact of changes in opium poppy cultivation and opium production in Afghanistan, and an analysis of early indications of the impact of cannabis legalization on public health, public safety, market dynamics and criminal justice responses in selected jurisdictions. Booklet 4 presents the latest trends in and estimates of the markets for various stimulants – cocaine, amphetamines and “ecstasy” – and new psychoactive substances, both at the global level and in the most affected subregions, including an analysis of different coca bush eradication strategies and a focus on the expansion of the methamphetamine market in South-West Asia. Booklet 5 delves into the nexus between drugs and the environment, providing a comprehensive overview of the current state of research into the direct and indirect effects of illicit drug crop cultivation and drug manufacture, as well as drug policy responses on the environment.

The *World Drug Report 2022* 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 insights, at assisting Member States in anticipating and addressing threats from drug markets and mitigating their consequences.