

# *faith* SEEKING UNDERSTANDING

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## 2019 World Drug Report Summary

Globally, an estimated 271 million people, about 5.5% of the world population aged 15-64 used an illicit drug in 2017. The number of people who use drugs is now 30% higher than it was in 2009. Data shows a higher prevalence of the use of opioids in Africa, Asia, Europe and North America and a higher prevalence of the use of cannabis in North America, South America and Asia compared to 2009.

Around 53 million people worldwide used opioids in the previous year, 56% higher than previously estimated. The synthetic opioid crisis in North America resulted in 47,000 recorded overdose deaths in 2017 in the US, an increase of 13% from the previous year. There were 4,000 opioid-related deaths in Canada, a 33% increase from 2016. While fentanyl and its analogues continue to be the key problem of the opioid crisis in North America, tramadol is a growing concern in West, Central and North Africa, as well as the Middle East. Opioids continued to cause the most harm, accounting for two-thirds of the deaths from drug use disorders.

There has been a decline in the number of new psychoactive substances (NPS) identified and reported for the first time. UNDOC said NPS have not been taken up in the market to the extent feared a few years ago. The international community has reacted in a timely manner to assess the harms caused by NPS and to schedule those that warranted international control.

According to the Global Burden of Disease Study, the greatest increase of deaths attributed to opioids is in North America. However, in both the US and Canada overdose deaths are not evenly distributed throughout the countries. In Canada, the highest rates are in the western provinces of Alberta and British Columbia. In the US, the highest rates are in the north-eastern and mid-western states. The increase of overdose deaths over the past five years corresponds with the increase in deaths from

synthetic opioids other than methadone, primarily fentanyl and its analogues. The rate of overdose deaths with synthetic opioids other than methadone increased by 8% between 1999 and 2013, but then by 71% per year between 2013 and 2017.

The Global Burden of Disease Study estimated there were 585,000 deaths as a result of drug use in 2017. Over the past three decades, the number of deaths attributed to drug use increased by 134%. More than half of those deaths (52%) were the result of untreated hepatitis C leading to liver cancer and cirrhosis; 29% were attributed to drug use disorders, mostly related to the use of opioids (66% from drug use disorders and 11% from HIV/AIDS). The largest increase in deaths between 1990 and 2017 was associated with untreated hepatitis C.

Cannabis remains the most widely used illicit drug in the world, with an estimated 188 million users in 2017, corresponding to 3.8% of the global population aged 15-64. The annual prevalence of cannabis use is highest in North America, at 13.8%, Oceania (10.9%) and West and Central Africa (10.0%).

Since 2010, there has been a relatively stable situation in most Western and Central European countries with amphetamine-type stimulants (ATS). The form of amphetamines used varies considerably from region to region. In North America, there are indications of increased methamphetamine use, while the use of crystalline methamphetamine has been reported to be increasing in East and South-East Asia.

Past year use of ecstasy was estimated at 21.3 million people globally, about .4% of the global population aged 15-64. Past-year use was relatively high in Oceania (2.2% for Australia and New Zealand), West and Central Europe (.9%) and North America (.9%). There are indications of an overall resurgence in ecstasy use recently, likely due to the increased availability of high-purity ecstasy in Western and Central Europe.

Limited data suggests that the use of prescription opioids has gone up in parts of Asia and Africa. However, the use of opiates (heroin and opium) has remained stable. See Table 1 for a comparison of global drug use by drug type.

**Table 1**  
**Global Drug Use by Drug Type**

	Cannabis	Amphetamine-like stimulants		Cocaine	Opiates (heroin, opium)	Opioids (opiates and synthetics)
		Amphetamines	Ecstasy			
<b>Users in millions</b>	188	28.4	21.3	18.1	29.2	53.4
<b>% of global population 15-64</b>	3.80%	0.60%	0.40%	0.40%	0.60%	1.10%

*This table and all following tables were produced from data within the World Drug Report 2019*

### **Opiates and Opioids**

In 2017 an estimated 53 million people, 1.1% of the global population, aged 16-64 used opioids at least once in the past year, half of whom were past-year users of opiates (heroin and opium). The highest prevalence of non-medical use of opioids was in North America, estimated at nearly 4% of the population aged 15-64. This represented 25% of global opioid users. Most opioids of concern in North America were pharmaceutical opioids, like hydrocodone, oxycodone, codeine and tramadol, which are being used for non-medical purposes.

Among opioids, heroin is the most prevalent substance, with a past-year use of 1.1% among the population aged 10-75, followed by non-medical use of pharmaceutical opioids where the prevalence is almost 1% of the population, and opium, which has a prevalence of almost .5%.

The prevalence of opioid use in Europe in 2017 was estimated at near .7% of the adult population. In Western and Central Europe, with near 2 million opioid users, heroin is the dominant drug. However, in recent years, there have been indications of an increase in the non-medical use of pharmaceutical opioids, with methadone, buprenorphine and fentanyl reported as the main pharmaceutical opioids being misused.

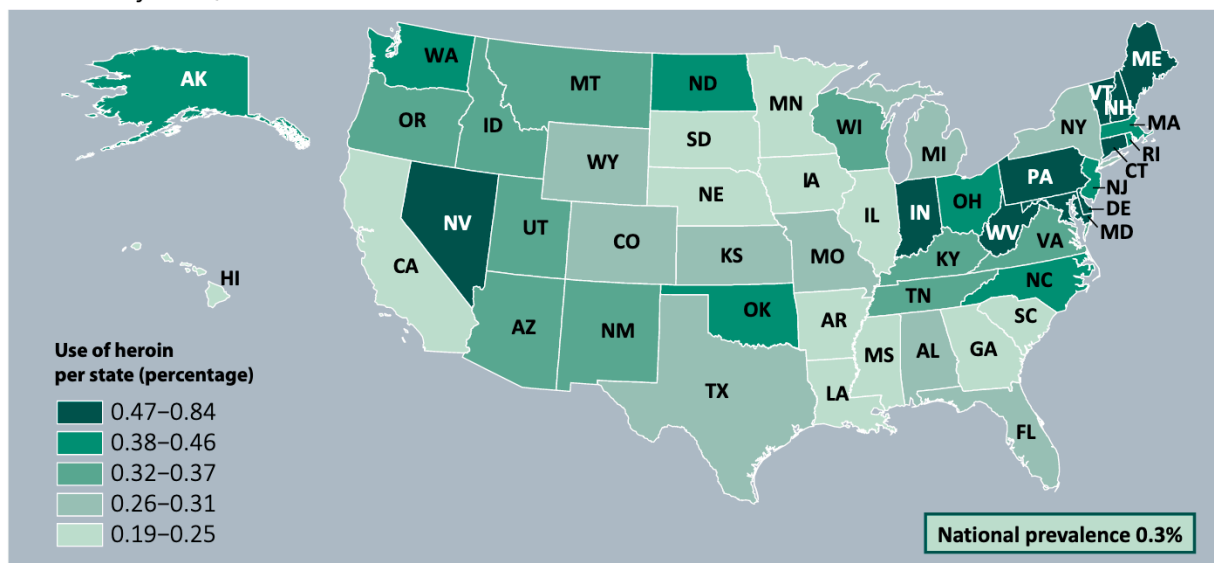
There has been a gradual increase in heroin use in the US market, since 2006, largely due to the availability of pure, cheaper heroin. There are reports of higher levels of heroin production in Mexico and Mexican traffickers expanding into “white heroin” markets. Anecdotal evidence is that Mexican drug cartels are switching from growing marijuana to opium poppies due to the lower demands for marijuana in the United States. See “[The Economics of Heroin](#)” on this website for more information on this topic.

In the United States there has been a shift in the opioid market towards heroin and away from prescription pain relievers, driven by the lower price and greater availability of heroin than prescription drugs. This occurred especially among young people, who considered it too costly to maintain their patterns of consumption and switched to heroin use. Pooled data from the National Survey on Drug Use between 2002 and 2011 indicated the likelihood of initiation of heroin use was 19 times higher among people who had reported non-medical use of pharmaceutical opioids. “The rate of heroin initiation increased, as the frequency of past-year non-medical use of pharmaceutical opioids among people with opioid use disorders increased.”

In 2017, people who used heroin were also likely to have also used pharmaceutical opioids. Out of an estimated 11.1 million people in the US who had used opioids non-medically in the past year, 10.5 million (95%) had primarily used pharmaceutical opioids and about 5%, (500,000) had also used heroin. This accounted for more than half of the estimated 886,000 people who had primarily used heroin in the past year.

The extent of past-year heroin use and non-medical use of pharmaceutical opioids varied considerably from region to region in the US. Estimated past-year non-medical use of pharmaceutical opioids in the western part of the country was higher in 2017 than the estimated past-year prevalence, while the estimated past-year prevalence of heroin use was higher in the north-eastern part of the country. See the following maps.

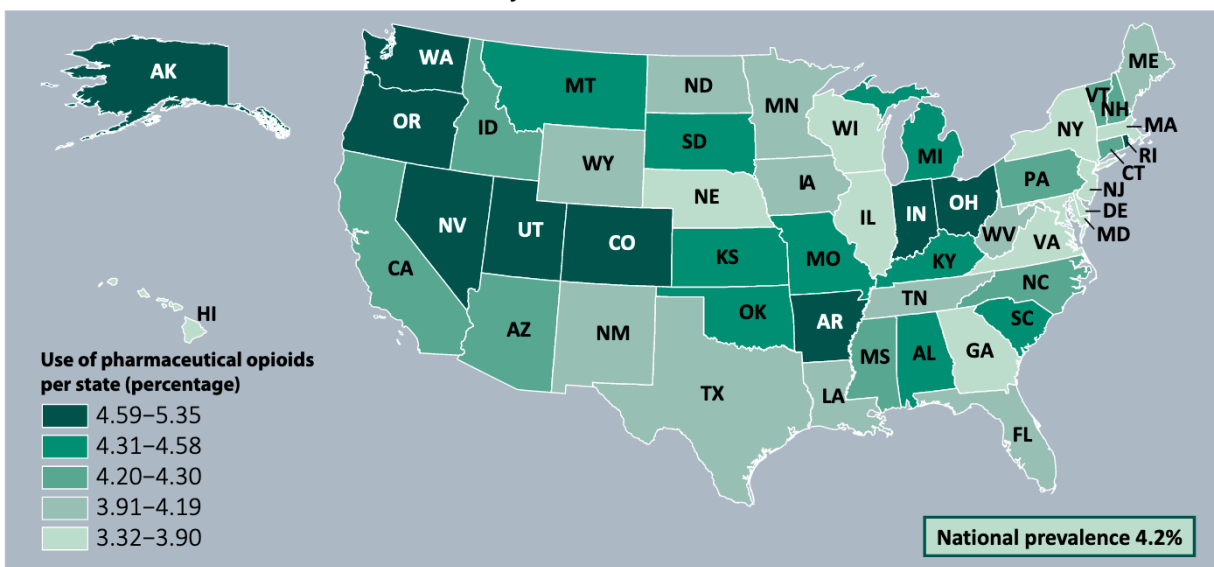
**MAP 1** Heroin use in the past year among the population aged 12 and older in the United States, by state, 2017



Source: SAMISHA, Center for Behavioral Health Statistics and Quality, NSDUH, 2016 and 2017.

*The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.*

**MAP 2** Non-medical use of pharmaceutical opioids in the past year among the population aged 12 and older in the United States, by state, 2017



Source: SAMISHA, Center for Behavioral Health Statistics and Quality, NSDUH, 2016 and 2017.

*The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.*

In Western and Central Europe, heroin remains the main opioid used. France, Germany, Italy, Spain and the United Kingdom, which account for 60% of the

population of the European Union, are estimated to account for  $\frac{3}{4}$  of the estimated high-risk users in the European Union. Apart from heroin, some of the most common opioids reported in countries in the European Union are opium, morphine, methadone, buprenorphine, tramadol and various fentanyl analogues. Some were diverted from legitimate pharmaceutical supplies, while others are illicitly manufactured and sold. In recent years, an increasing number of countries in Western and Central Europe report that more than 10% of opioid users who enter treatment do so for problems related to opioids other than heroin.

“The non-medical use of buprenorphine is reported by around one third of opioid users in treatment in Czechia, while the non-medical use of methadone is reported by almost a quarter of opioid users in treatment in Denmark.” In Finland the proportion of clients entering treatment for non-medical use of buprenorphine increased from 3% in 1998 to more than 33% in 2008. By 2018, it accounted for almost all opioid users in treatment.

Tramadol, a synthetic opioid not under international control, has emerged as an opioid of concern in many subregions, particularly in West, Central and North Africa. It is also a concern in the Middle East and parts of Asia as well as Europe and North America.

For example, in Egypt since 2000 there has been an increase in the non-medical use of tramadol among people entering treatment for drug use disorders. However, there has been a change in their source of supply, as most patients report having obtained tramadol from pharmacies in the early 2000s by bypassing the regulations for dispensing prescription painkillers. But over the next 10 to 15 years most reported buying them on the illicit market. A study in the Islamic Republic of Iran found that more than half of 162 people did not have a prescription for tramadol. In 2016 in Egypt, 3% of the adult population reported non-medical use of tramadol in the past year. Nearly 68% of the people in treatment for drug use disorders were being treated for tramadol use. In Gaza, among the estimated 10,000 high-risk male drug users in 2016 (1.8% of the male population older than 15), almost all were using tramadol—although polydrug use was common. For more information on tramadol misuse, see the 2019 World Drug Report as well as “[Trouble with Tramadol](#)” and “[Global Troubles with Tramadol](#)” on this website. See the following table for data on global opiate use.

**Table 2**  
**Global Opiate Use**

<b>Geographic Area</b>	<b>Opiate Users in Millions</b>	<b>population % 15-64 years</b>	<b>Opioid Users in Millions</b>	<b>population % 15-64 years</b>
<b>Europe</b>	3.22	0.59	3.6	.66
<b>West &amp; Central Europe</b>	1.74	0.54	1.8	.58
<b>East &amp; South-East Europe</b>	1.49	0.66	1.7	.77
<b>North America</b>	2.4	0.74	12.8	3.96
<b>South America</b>	0.24	0.08	.58	.20
<b>Asia</b>	21.73	0.72	29.5	.98
<b>Oceania</b>	0.04	0.16	.65	2.48
<b>Africa</b>	1.47	0.21	6.08	.87
<b>Global</b>	29.16	0.59	53.4	1.08

## **Cocaine**

Eradication efforts in Columbia led to a decline in the net area under coca bush cultivation to the lowest levels since the beginning of available estimates in 1990. Coca bush cultivation fell by 70% over the period 2000-2013. However, the Colombian government decided in May of 2015 to suspend the aerial fumigation of illegal coca plants in light of a number of studies linking the herbicide used, glyphosate (Roundup), to cancer. This was followed by a twofold increase in the area under global coca cultivation over 2000-2013, which led to an increase of 15% in 2017, accounting for 70% of the total global area under coca cultivation.

Parallel to the increase in global supply of cocaine, there has been an increase at the global level of availability. In 2017, 18 million people, nearly .4% of the adult global population aged 15-64, reported cocaine use in the past year. This has been documented in the two main cocaine markets, North America and Europe. While there

is an emerging cocaine market in Africa and Asia, the availability of data on drug use in those regions is chronically limited.

Cocaine use in North America remained high, with a 2.1% annual prevalence rate. Oceania (Australia and New Zealand) topped the North American rate with 2.2% annual prevalence rate. Europe had a .87% annual prevalence rate, and South America had .95%.

Cocaine use in the US was estimated to be higher among young adults, aged 18-25 who were white, male and college students. Cocaine injecting and the use of crack cocaine was more frequent among socially marginalized users. Overdose deaths from cocaine use have doubled over 2007-2017. But this increase has been largely attributed to deaths involving cocaine and opioids.

Past-year use of cocaine remained much lower in Central and South America than in North America or other major cocaine markets. In South America, nearly 2.7 million people, nearly 1% of the population aged 15—64, were estimated to be past-year cocaine users in 2017. Brazil remains an attractive target for cocaine consumption, because of its large urban population; and trafficking because of its geographic position, making it a convenient staging area for cocaine trafficked to Europe. With nearly 1.5 million past-year cocaine and crack cocaine users, Brazil is the largest cocaine market in South America. Brazil contains about half the population of South America.

With its linguistic and cultural ties to Portugal, Brazil is a logical transit point for cocaine consignments trafficked to West and Central Africa and Europe; notably through the Iberian Peninsula of Spain and Portugal. Cocaine use is high in Western and Central Europe, accounting for some 90% of all cocaine users in Europe as a whole. Most countries in Western and Central Europe report an increase in cocaine use. More than half of all European cocaine users are aged 15-34. As in the US, the use of cocaine in Europe differs between socially integrated users, who typically snort cocaine and marginalized users, who typically inject cocaine or smoke crack, sometimes with opioids. In the UK, the combined prevalence of opioid and crack cocaine use increased by 8.5% from 2011-2012 to 2016-2017.

Cocaine use in Africa and Asia is lower than in other regions. Past-year cocaine use in Africa for 2017 was estimated as between .02 and .4% of the population, between 160,000 and 2.6 million users. Asia also has low prevalence rates, being estimated to



be between .04 and .07 %, between 1.1 and 2.2 million past-year users. These two regions suffer from large data gaps, which make any estimated trend analysis difficult to do. See the following table for data on global cocaine use.

**Table 3**  
**Global Cocaine Use**

<b>Geographic Area</b>	<b>Population of Cocaine Users in Millions</b>	<b>% of population 15-64 years</b>
<b>Europe</b>	4.74	0.87
<b>West &amp; Central Europe</b>	4.24	1.33
<b>East and South-East Europe</b>	0.50	0.22
<b>North America</b>	6.8	2.10
<b>South America</b>	2.74	.95
<b>Asia</b>	1.67	0.06
<b>Oceania</b>	.43	2.2
<b>Africa</b>	1.3	0.19
<b>Global</b>	18.07	0.37

## **Cannabis**

Cannabis remains the most widely used illicit substance, with an estimated 3.8 percent of the global population aged 15 to 64 who have used it in the past year. This is the equivalent of 188 million people. The overall number of cannabis users is estimated to have increased by about 30% from 1998-2017.

It continues to dominate the global drug market in terms of pervasiveness of cultivation, volume of production, and number of consumers. Almost two thirds of the reporting countries ranked cannabis as their primary substance of abuse. The various kinds of cultivation, from personal growing to large-scale farms and indoor warehouse

operations make it difficult to estimate global levels of cannabis cultivation and production.

While cannabis use has increased in the US, the more dramatic changes has been in the frequency of use and the quantity consumed. Lifetime prevalence of cannabis use among adults aged 18 and older increased by 10% from 2002 to 2017. However, past-year and past-month use of cannabis increased by 50% and 65%. The most pronounced increase was with daily or near-daily users. In 2017, over 24 million people aged 18 and over were estimated to be past-month users of cannabis, more than a 40% increase. Over 10 million were daily or near-daily users.

Comparatively high levels of cannabis use have also been reported in Canada. Past-year prevalence of cannabis in 2017 was 15%, 4.4 million people, among the Canadian population aged 15 and older. Thirty-seven percent reported using cannabis for medical reasons. Past-year use has increased by 25% in the general population and it was reported to be above the national average in British Columbia, Nova Scotia and Manitoba. These figures will likely increase, as Canada approved the sale of recreational cannabis in the fall of 2018.

Research has not conclusively established the impact of more lenient laws on cannabis consumption. However, an increase in cannabis use is expected. As production costs drop, consumption should increase further. It is estimated that for every 10% drop in price, there will be a 3% increase in the total number of users, and a 3% to 5% increase in young users. Among youth and young adults, more permissive regulations correlates with a lowered perceived risk of use. A lowered risk perception has been found to predict increases in use.

There are a number of potential health issues to look out for, including lung problems, memory impairment, mental health problems, and poorer cognitive performance associated with early initiation and persistent use between the early teenage years and adulthood. See “[Marijuana Research Findings](#)” on this website for more information on potential medical and psychological problems with cannabis use.

The global prevalence rates are highest in North America, followed by Oceania, Africa, West & Central Europe and South America. While Asia has the lowest prevalence rate, it also has the largest number of estimated users at 54.21 million. See Table 4 for data on global cannabis use.

**Table 4**  
**Global Cannabis Use**

<b>Geographic Area</b>	<b>Population of Cannabis Users in Millions</b>	<b>% of population 15-64 years</b>
<b>Europe</b>	29.49	5.4
<b>West &amp; Central Europe</b>	23.6	7.4
<b>East and South-East Europe</b>	5.88	2.6
<b>North America</b>	44.63	13.8
<b>South America</b>	10.04	3.5
<b>Asia</b>	54.21	1.8
<b>Oceania</b>	2.84	10.9
<b>Africa</b>	44.9	6.4
<b>Global</b>	188.04	3.8

### **Amphetamine-Type Stimulants (ATS)**

In 2017, roughly 29 million people (.6% of the population aged 15-64) globally had used ATS, amphetamine and methamphetamine, in the past year. The highest past-year prevalence rate was in North America, followed by Oceania (Australia and New Zealand). The prevalence of methamphetamine is also reported to be high in East and South-East Asia, but insufficient data in the subregion makes it difficult to estimate the actual extent of their use. From the limited quantitative information available, it was estimated that more than one third of the estimated number of global users had used ATS in the past year in East and South-East Asia. There were indications of an increase in the use of methamphetamine in North America as well.

There was a considerable increase in the proportion of people with opioid use disorder entering treatment who also reported the use of methamphetamine, both

concomitant and sequential. This increase was significantly higher in the western US than the rest of the country. See the following table for data on global ATS use.

**Table 5**  
**Global ATS Use**

<b>Geographic Area</b>	<b>Population of ATS Users in Millions</b>	<b>% of population 15-64 years</b>
<b>Europe</b>	2.9	0.53
<b>West &amp; Central Europe</b>	2.18	.68
<b>East and South-East Europe</b>	.71	0.32
<b>North America</b>	6.84	2.11
<b>South America</b>	.71	0.25
<b>Asia</b>	14.14	0.47
<b>Oceania</b>	0.35	1.34
<b>Africa</b>	3.68	0.53
<b>Global</b>	28.92	0.59

### **New Psychoactive Substances**

Whether or not a NPS is considered to be a stimulant is complicated by the fact that some of these substances have several pharmacological properties that include stimulant, hallucinogenic and analgesic effects. The challenge when analyzing NPS stimulants is not only in their classification but also in the rapid dynamics of the market and the control system. A number of key stimulant NPS, such as mephedrone (4-methylmethcathinone), MDPV and methylone (3,4-methylenedioxy-*N*-methycathinone) have been scheduled at the international level. But a number of

countries continue to report “bath salts” as NPS even when they contain the various cathinones noted here which are already under international control.

The number of stimulant NPS identified over 2009-2017 increased more than fourfold, from 48 substances in 2009 to 206 in 2015. Over a third of all NPS identified since 2009 are stimulants, including 39% of all NPS identified in 2017. Most of the new NPS identified and reported to UNODC (United Nations Office on Drugs and Crime) in 2017 were cathinones or phenethylamines.

There are a number of NPS sold on the global market, and they can be classified within the following categories: aminoindanes, phencyclidine-type substances, phenethylamines, piperazines, plant-based substances, synthetic cannabinoids, synthetic cathinones, tryptamines, and other substances. You can turn to the UNODC page for [NPS Substance Groups](#) for more information, or review the following descriptions:

### **Categories of NPS sold on the global market**

- 1) Aminoindanes predominantly act as stimulants, mimicking the effects of cocaine, amphetamine, methamphetamine and ecstasy. The prototype amininoindane is a cyclic analogue of amphetamine. Research indicates the adverse effects are relatively benign at recreational doses, but the effects on humans have not yet been reported.
- 2) Phencyclidine-type substances show structural similarity to phencyclidine (PCP) and ketamine. They act predominantly as stimulants or dissociatives. They first appeared in Europe as ‘research chemicals’ in 2010.
- 3) Phenethylamines, are substances related to amphetamine, methamphetamine and MDMA (ecstasy), and mescaline, which are controlled under the 1971 Convention. Most act either as stimulants or as hallucinogens, such as Bromo-Dragonfly, which has been associated with a number of deaths in Scandinavia. Reported adverse effects include agitation, tachycardia, hallucinations, seizures, liver and renal failure.
- 4) Piperazines, have been described as “failed pharmaceuticals”, as they have been evaluated as potential therapeutic agents, but were never brought to market. These substances are frequently sold as “ecstasy” because of their central nervous system stimulant properties. Most piperazines are stimulants, but in rare cases they can act

as opioids. The most commonly reported substances in this group are N-benzylpiperazine (BZP) and 1-(3-chlorophenyl) piperazine (mCPP).

5) Plant-based substantives with psychoactive properties; the most frequently reported are: Kratom, a plant indigenous to south-East Asia that is a stimulant at low doses and sedative at high doses; *Salvia divinorum*, a plant indigenous to the forests in Oaxaca Mexico, which contain salvinorin A, a potent hallucinogenic; and Khat, a plant native to the horn of Africa and the Arabian peninsula. The leaves are chewed, releasing the stimulants cathinone and cathine.

6) Synthetic cannabinoids, are cannabinoid receptor agonists that produces effects similar to delta-9-tetrahydrocannabinol (THC), the principle psychoactive ingredient in marijuana. Synthetic cannabinoids are often laced with herbal products and sold as Spice, K2, Moon Rocks, Yucatan Fire, Skunk, and others. They tend to be more potent than the THC contained in the natural cannabis plant. A synthetic analogue of THC, 'HU-210' is regarded as a 'classical cannabinoid', was first synthesized in Israel in 1988 and is considered to have at least 100 times the potency of THC.

7) Synthetic cathinones (bath salts), are analogues and derivatives of cathinone, one of the active components of the khat plant. They first appeared on the market in the mid-2000s and have stimulant effects. They include methylone, an analogue of MDMA, and mephedrone (4-methylmethcathinone). Cathinone, ephedrone and methylone are structurally related to amphetamine, methamphetamine and MDMA respectively. 3,4-methylenedioxypyrovalerone (MDPV) was first synthesized in 1969 and emerged as a NPS in Germany.

8) Tryptamines, are predominantly hallucinogens. They mimic the effects of LSD, but may also possess residual stimulant activity. While there are naturally occurring tryptamines that are neurotransmitters (serotonin, melatonin and bufotenine), most are psychoactive hallucinogens like psilocybin (found in "magic mushrooms"), *N,N*-dimethyltryptamine (DMT) and *N,N*-diethyltryptamine (DET). While tryptamines can be synthesized, they also exist in plants, fungi and animals. Use may be especially problematic for individuals already having symptoms of depression or schizophrenia.

## Summary

North America continues to be a major market for illicit drug use. It has the largest percentage of opioid users, cocaine users, cannabis users and ATS users.

Cannabis continues to be the most widely used illicit drug worldwide in terms of overall users and percent of the world's population between 15 and 64. There seems to be an increase in treatment-related concerns and ER visits with cannabis in the US. One conjecture is this is due to the increased potency of marijuana. With the increasing movement towards full legalization in the US, there has been a pronounced increase with daily or near-daily users of cannabis.

In 2017, there were around 53 million people who used opioids worldwide. In the US, there has already been a noticeable shift towards heroin and fentanyl away from prescription pain relievers. Synthetic opioid use in the US resulted in 47,000 overdose deaths in 2017, an increase of 13% over the previous year. The extent of past-year use of heroin and non-medical use of pharmaceutical opioids varied considerably from region to region in the US. Internationally, there are concerning problems with the non-medical use of methadone, buprenorphine and tramadol.

Eradication efforts led to a decline in coca bush cultivation in Columbia. However, the Columbian government decided to suspend aerial fumigation efforts in 2015 out of concern the chemical used was linked to increased rates of cancer. Increased growth of coca bush in Columbia, accounting for 70% of the total land under cultivation, has been the result.

There have been 888 substances reported to the UNODC Early Warning Advisory on NPS by governments, laboratories and partner organizations. They have become a global phenomenon, and are found in 119 countries and territories from all regions of the world. The majority of NPS are stimulants, followed by synthetic cannabinoids and classic hallucinogens.

You can review the original [World Drug Report 2019](#) for a more detailed discussion of the regional and global trends for drug use and misuse. You can access previous publications of the *World Drug Reports* from there as well.