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WORLD 5
DRUG
REPORT

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The World Drug Report provides an annual overview of the major developments in drug markets for the various drug categories, ranging from production to trafficking, including development of new routes and modalities, as well as consumption. Chapter 1 of the *World Drug Report 2014* provides a global overview of the latest developments with respect to opiates, cocaine, cannabis and amphetamines (including "ecstasy") and the health impact of drug use. Chapter 2 zeroes in on the control of precursor chemicals used in the manufacture of illicit drugs.

On the basis of comprehensive information on supply, as well as the relatively limited new information on demand, it can be concluded that overall the global situation with regard to the prevalence of illicit drug use and problem drug use¹ is generally stable, with the total global number of drug users increasingly commensurate with the growth of the world population.

That said, each region exhibits its own peculiarities with respect to specific drugs. Polydrug use, which is generally understood as the use of two or more substances at the same time or sequentially, remains a major concern, both from a public health and a drug control perspective.

Drug use and its health and social consequences

Drug use continues to exact a significant toll, with valuable human lives and productive years of many persons being lost. An estimated 183,000 (range: 95,000-226,000) drug-related deaths were reported in 2012. That figure corresponds to a mortality rate of 40.0 (range: 20.8-49.3) deaths per million among the population aged 15-64. While that estimate is lower than for 2011, the reduction can be ascribed to the lower number of deaths reported in a few countries in Asia.

Globally, it is estimated that in 2012, between 162 million and 324 million people, corresponding to between 3.5 per cent and 7.0 per cent of the world population aged 15-64, had used an illicit drug — mainly a substance belonging to the cannabis, opioid, cocaine or amphetamine-type stimulants group — at least once in the previous year.

The extent of problem drug use — by regular drug users and those with drug use disorders or dependence —

There is no standard definition of problem drug use. The definition may differ from country to countryand may include 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 or as drug-dependent based on clinical criteria contained in the International Classification of Diseases (tenth revision) of the World Health Organization and the Diagnostic and Statistical Manual of Mental Disorders (fourth edition) of the American Psychiatric Association, or any similar criteria or definition that may be used.

remains stable at between 16 million and 39 million people. However, there continues to be a gap in service provision, as in recent years, only one in six problem drug users globally have had access to or received drug dependence treatment services each year.

Although the general public may perceive cannabis to be the least harmful illicit drug, there has been a noticeable increase in the number of persons seeking treatment for cannabis use disorders over the past decade, particularly in the Americas, Oceania and Europe. Nonetheless, opiates remained the most prevalent primary drug of abuse among those seeking treatment in Asia and in Europe, as did cocaine in the Americas.

With regard to injecting drug use, the United Nations Office on Drugs and Crime (UNODC), the Joint United Nations Programme on HIV/AIDS (UNAIDS), the World Bank and the World Health Organization (WHO), drawing on the most recent data available, jointly estimate that the number of people who inject drugs is 12.7 million (range: 8.9 million-22.4 million). That corresponds to a prevalence of 0.27 per cent (range: 0.19-0.48 per cent) of the population aged 15-64.² The problem is particularly stark in Eastern and South-Eastern Europe, where the rate of injecting drug use is 4.6 times higher than the global average.

The sharing of used injecting equipment makes people who inject drugs particularly vulnerable to HIV and hepatitis C. It is estimated that an average of 13.1 per cent of the total number of people who inject drugs are living with HIV. UNODC, the World Bank, WHO and UNAIDS jointly arrived at a global estimate of the number of people who inject drugs living with HIV of 1.7 million persons (range: 0.9-4.8 million). That situation is particularly pronounced in two regions of the world: South-West Asia and Eastern/South-Eastern Europe, where it is estimated that the prevalence of HIV among people who inject drugs is 28.8 and 23.0 per cent, respectively. More than half of the people who inject drugs are estimated to be living with hepatitis C.

Addressing HIV among people who inject drugs, through the implementation of an evidence-based comprehensive package of nine interventions,³ as a component of what is

- 2 These estimates reflect the most recent data available from different sources, including integrated biological and behavioural surveillance surveys, the improved coverage and quality of surveillance within countries and the increase in the number of countries reporting. Therefore, these estimates should be understood as an update of previous global estimates and not be used as a comparison for the purposes of trend analysis.
- 3 WHO, UNODC, UNAIDS Technical Guide for Countries to Set Targets for Universal Access to HIV Prevention, Treatment and Care for Injecting Drug Users: 2012 Revision (Geneva, World Health Organization, 2012).

also known as "harm reduction services", is a major component of the global response to stop the spread of HIV. Of them, the four most effective interventions for HIV prevention, treatment and care are needle and syringe programmes, opioid substitution therapy (or other evidence-based drug dependence treatment in the case of people who inject non-opioid drugs), HIV testing and counselling, and antiretroviral therapy.

The coverage of the four most effective interventions is greatest in Western and Central Europe, where harm reduction interventions have been scaled up for more than a decade, leading to a decline in the number of newly diagnosed cases of HIV among people who inject drugs and of AIDS-related deaths attributed to unsafe injecting drug use. However, recent outbreaks of HIV among people who inject drugs in parts of Europe demonstrate how the HIV epidemic situation can change very rapidly in areas where services and interventions are scaled down.

It is well documented that a very high percentage of people who inject drugs have a history of imprisonment. Also, both drug use and injecting drug use are highly prevalent among prison populations. The lack of access to and availability of health care, especially drug dependence treatment and HIV prevention, treatment and care services in prisons, is of major concern, since the prison population, at a minimum, should have access to services equivalent to those available to the general public. For instance, in Europe, the proportion of prisoners who had used an illicit substance during incarceration ranged from 4-56 per cent.

In Europe, the financial crisis seems to have had an impact on drug use modalities, with related health and social consequences. While there are no comprehensive data available yet, two phenomena seem to have emerged in parts of Europe that have appeared in parallel to the financial crisis. First, there appears to be a shift in the pattern of drug use which sometimes results in a higher risk of harm; and secondly, there has been a reduction in coverage of harm reduction services, which, according to recently published research, has increased the likelihood of unsafe injecting behaviour, thus influencing the spread of infections such as HIV and hepatitis C.

Drug profiles by category

Opiates

Opiates and opioids top the list of problem drugs that cause the most burden of disease and drug-related deaths worldwide. For the third consecutive year, Afghanistan, which has the world's largest opium poppy cultivation, saw an increase in the area under cultivation (from 154,000 hectares in 2012 to 209,000 hectares in 2013). In addition, Myanmar witnessed expansion in the area of opium poppy cultivation, although less pronounced. In 2013, the estimated global production of heroin rebounded to the levels seen in 2008 and 2011.

The global area of illicit opium cultivation in 2013 stood at 296,720 hectares — the largest area since 1998, when estimates became available.

There is evidence that Afghan heroin is increasingly reaching new markets, such as Oceania and South-East Asia, that had been traditionally supplied from South-East Asia. The long-established Balkan route seems to remain a corridor for the transit of Afghan heroin to the lucrative markets in Western and Central Europe, but its importance has declined due to various factors such as more effective law enforcement and a shrinking market in Western and Central Europe, as seen by the decline in opiate use and seizures in the subregion and the reduced level of supply compared with the peak levels of 2007.

The so-called "southern route" is expanding, with heroin being smuggled through the area south of Afghanistan reaching Europe, via the Near and Middle East and Africa, as well as directly from Pakistan.

An emerging phenomenon among opioid-dependent drug users in the United States of America is that synthetic opioids are being replaced with heroin, driven by the increased availability of heroin in parts of the United States, and lesser costs to regular users to maintain their dependency. Further, the reformulation of one of the main prescription pharmaceuticals abused, OxyContin, now makes it more difficult to snort or inject it.

Following a sharp increase in 2011, global seizures of heroin and illicit morphine declined in 2012, while remaining higher than the levels of 2010 and prior years. The fluctuations were mainly driven by seizures in South-West Asia and Western and Central Europe. However, in 2012, there was an increase in heroin seizures in many other regions, mainly Eastern and South-Eastern Europe, South Asia and Oceania. Significantly, heroin seizures, and therefore presumably the flow of heroin, in key countries located along the "northern route" from Afghanistan to the Russian Federation, have gone down. At the same time, there is evidence of a significant number of small seizures of home made desomorphine, which is likely serving as a substitute for heroin.

The emergence of potentially more harmful behaviour, including the abuse of opioids such as fentanyl, has been noted among opioid-dependent persons in Estonia, Finland and the United States. It has been observed that opioid users may alternate between pharmaceutical and/or prescription opioids and heroin, depending on which substance is more available, accessible and cheaper in the market.

Cocaine

While cocaine manufacture and trafficking have had a serious impact in the Western hemisphere, there are indications that overall global availability of cocaine has fallen. The estimated net area under coca bush cultivation as of 31 December 2012 was the lowest since the beginning of

Global cocaine seizures increased to 671 tons in 2012, compared with the 634 tons seized in 2011. The main increase in the quantities of cocaine seized were in South America and Western and Central Europe.

Cocaine use is still relatively concentrated in the Americas, Europe and Oceania, and practically all of the world's cocaine is produced in three countries in South America. While there is no conclusive evidence with respect to the extent of cocaine use in Africa and Asia, expert opinion indicates that there may be pockets of emerging cocaine use in those two regions, related to the rise in trafficking through Africa and increased affluence in both continents.

The most problematic use of cocaine is in the Americas. In North America, cocaine use has been declining since 2006, partly due to a sustained shortage. However, more recently, a slight increase in prevalence has been observed in the United States, as has an increase in maritime seizures.

In South America, cocaine consumption and trafficking have become more prominent, particularly in Brazil due to factors including its geographical location and a large urban population.

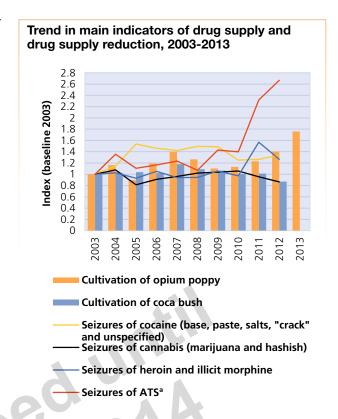
In Western and Central Europe, the second largest market after the Americas, indicators of overall supply suggest a possible rebound in the availability of cocaine; retail purity has increased in some countries with sizable consumer markets. On the other hand, they do not show an increase in demand. There has even been a decline in cocaine use in some of the countries that have had higher levels of use.

The market has expanded in Oceania in recent years, but the region has a different pattern of use compared with other consumer markets because it has a large body of users (a high prevalence) who use the substance with low frequency, perhaps due to the high price of cocaine.

Cannabis

Cultivation and production of cannabis herb ("marijuana") remains widespread, while production of cannabis resin ("hashish") remains confined to a few countries in North Africa, the Middle East and South-West Asia. In Afghanistan, despite the fact that the area under cannabis cultivation has been decreasing, the potential cannabis resin production in 2012 was higher than in 2011 due to the greater yield per hectare.

Global cannabis use seems to have decreased, essentially reflecting a decrease in cannabis use estimates reported by a number of countries in Western and Central Europe. However, in the United States, the lower perceived risk of cannabis use has led to an increase in its use. At the same time, more people using cannabis are seeking treatment each year.



Source: Seizure data: annual report questionnaire supplemented by other official sources.

Cultivation data: UNODC estimates based on national illicit crop monitoring systems supported by UNODC supplemented by other official data

^a Including amphetamine, "ecstasy"-type substances, methamphetamine, non-specified ATS, other stimulants and prescription stimulants. For the categories of other stimulants and prescription stimulants, seizures reported by weight or volume only are included.

In Europe, the market has changed over the past decade, with cannabis herb produced locally or regionally now gaining ground over cannabis resin, largely sourced from Morocco, which previously was the dominant cannabis substance in Europe, as evidenced by seizure data.

New regulatory frameworks in the States of Colorado and Washington in the United States and in Uruguay now make the recreational use of cannabis legal under some restrictions. The new laws also include provisions for the supply chain, including both licensed and personal cultivation. It is too early to understand the impact of these changes on recreational and problematic use of cannabis and in the broad range of areas that they may affect, including health, criminal justice, and public revenues and expenditures. It will take years of careful monitoring to understand the broader effects of those novel regulatory frameworks in order to inform future policy decisions.

Based on existing research, it can be argued that with declining risk perception and increased availability, use and youth initiation may increase. Tax revenues from retail cannabis sales are expected to provide public revenue. However, expected revenue will need to be cautiously weighed against the costs of prevention and health care.

Amphetamine-type stimulants

While it is difficult to quantify the global manufacture of amphetamine-type stimulants, the number of dismantled laboratories manufacturing amphetamine-type stimulants, which were mostly manufacturing methamphetamine, continued to rise. Manufacture of methamphetamine in North America expanded once again, with a large increase in the number of methamphetamine laboratories reported dismantled in the United States and Mexico.

Of the total of 144 tons of amphetamine-type stimulants seized globally, half were seized in North America and a quarter in East and South-East Asia. Large quantities of amphetamine seizures continue to be reported in the Middle East, in particular in Jordan, Saudi Arabia and the Syrian Arab Republic.

Central and South-West Asia are emerging as new markets, with low levels of methamphetamine seizures and use being reported by two countries in those subregions. South-West Asia has also emerged as a significant production area for methamphetamine destined for East and South-East Asia. Production in West and Central Africa is also emerging.

Seizures of "ecstasy" increased in 2012, with major quantities of "ecstasy" being seized in East and South-East Asia, followed by Europe (South-Eastern and Western and Central Europe), which together accounted for over 80 per cent of global seizures of "ecstasy".

The misuse of prescription stimulants or medications for attention-deficit hyperactivity disorder (ADHD) is not uncommon, although only a few countries report any prevalence of misuse among the general and youth population. Although misuse of prescription stimulants in other regions is not negligible, such abuse is reported mainly by countries in North and South America.

New psychoactive substances and web-based marketplaces

While the Internet continues to be used as a means of drug trafficking and illicit trade in precursor chemicals, use of the so-called "dark net" has been growing. The "dark net" constitutes a virtual marketplace, which is inaccessible by web search, and where it is difficult for law enforcement authorities to identify website owners and users, as their identities remain hidden by means of sophisticated concealment methods. That makes the "dark net" a safe haven for buyers and sellers of illicit drugs, who trade principally in a digital currency (Bitcoin).

While the overall proportion of drug transactions that take place in the "dark net" is unclear, the value of transactions, as well as the range of drugs available, appears to be growing. The dismantling of one prominent "dark net" site, the "Silk Road", uncovered that the site had approximately \$1.2 billion worth of total revenue from two to five years of operations. There is evidence of a niche market on the "dark net" for new psychoactive substancesas well as for

high-quality cannabis, heroin, methylenedioxymethamphetamine (MDMA) and cocaine.

Finally, the proliferation of new psychoactive substances continues to pose a challenge, with the number of new psychoactive substances (348 such substances in December 2013, up from 251 in July 2012) clearly exceeding the number of psychoactive substances controlled at the international level (234 substances).

Drug-related crime

Crime recorded by the authorities in relation to personal use and trafficking of drugs assessed separately has shown an increase over the period 2003-2012, in contrast to the general declining trend in property-related and violent crime. However, the proportion of drug offenders who were drug users with recorded offences for personal use has remained stable, given the increased number of users during that period. Worldwide, the large majority of drug use offences are associated with cannabis.

Crime related to drug trafficking varies depending on the type of drug and the supply patterns involved in different regions.

The majority of persons arrested for or suspected of drug offences are men; the involvement of women in drug offences varies according to drug type, reflecting the drugs of preference among women. The highest percentage of women arrestees or suspects can be observed in relations to crimes involving sedatives and tranquillizers (25 per cent).

Precursor control

Most drugs, whether plant-based or synthetic, require chemicals to transform them into the final product. While chemicals are only one of the components required for the clandestine manufacture of plant-based drugs (heroin and cocaine), they constitute the essential components of illicitly manufactured synthetic drugs.

Given the growing manufacture of synthetic drugs, the control of such chemicals, known as precursors, has emerged as a key supply control strategy because the traditional approaches, such as eradication of illicit crops and alternative development, cannot be applied to synthetic drugs.

There are potential vulnerabilities in the structure of and trends in the production of and trade in chemicals that are used in the illicit manufacture of drugs. The international community has, over the years, strenghtened a control system aimed at enabling the legal trade of such chemicals while preventing their diversion into illicit manufacture.

Some successes have been achieved in precursor control, but they have prompted a range of reactions from the traffickers and manufacturers of illicit drugs, which create new challenges for the international drug control system.

Vulnerabilities of the chemical industry to diversion of precursors

The chemical industry has seen strong growth rates and geographical shifts over the past few decades, notably the past two decades, when global production doubled and trade more than tripled. Also during that period, the bulk of production shifted to Asia, where the emerging chemical industry is now characterized by a sizeable cluster of small competing enterprises. In contrast to the past situation, when the chemical industry was dominated by large, vertically integrated conglomerates, these new developments have made the chemical industry potentially more vulnerable to the diversion of precursors.

Moreover, with more and more chemicals being traded across borders, a greater number of transit countries and the emergence of a number of chemical brokers and other intermediaries, the potential avenues for diversion of precursors to the clandestine manufacture of drugs have been increasing.

Response by the international community

Precursor control emerged as one of the key pillars of international drug control in the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988. The Convention sets out specific measures for the manufacture and distribution of and international trade in a number of chemicals frequently used in the manufacture of drugs. These are listed under two categories: the more strictly controlled substances in Table I and the relatively less controlled substances in Table II. The 1988 Convention entrusts the International Narcotics Control Board with the implementation of precursor control at the international level.

The system has been further enhanced by means of a number of resolutions adopted by the United Nations Commission on Narcotic Drugs, the Economic and Social Council and the General Assembly, as well as the Political Declaration adopted by the General Assembly at its twentieth special session, in 1998, and the Political Declaration and Plan of Action on International Cooperation towards an Integrated and Balanced Strategy to Counter the World Drug Problem, adopted by the General Assembly in 2009, including their related action plans. As of December 2013, 23 substances were under international control: 15 substances in Table I and 8 substances in Table II of the 1988 Convention. In March 2014, the Commission on Narcotic Drugs decided to schedule *alpha*-phenylacetoacetonitrile (APAAN) in Table I of the Convention.

Production and trade of precursor chemicals

There is licit use and licit trade of precursors, and control includes the monitoring of the licit trade while preventing diversion. Through the analysis of information provided by countries to UNODC and international trade statistics, it can be concluded that over the period 2010-2012, some

77 countries were engaged in the manufacture of precursor chemicals

A much larger number of countries were involved in trade in precursors. 122 countries reported exports of precursor chemicals over the period 2010-2012, while 150 countries reported imports. The largest exports of precursors were reported by countries in Asia, followed by Europe and the Americas. If only net exporting countries of precursor chemicals are considered, Asian countries account for 59 per cent of total net exports over the 2010-2012 period. Global exports in precursor chemicals rose at a rate similar to that of chemicals in general.

The licit requirements for and applications of various precursors differ from country to country. The bulk (93 per cent) of the international trade in precursor chemicals, in terms of economic value, is of substances listed in Table II of the 1988 Convention. In 2012, the more strictly controlled substances in Table I accounted for only 7 per cent of international trade in precursor chemicals, or 0.04 per cent of overall international trade in chemicals, and their export growth has been far lower than for Table II substances. The most important Table I substances, in economic terms, are acetic anhydride, used in the manufacture of heroin, followed by potassium permanganate, used in the manufacture of cocaine, and pseudoephedrine, used in the manufacture of methamphetamine.

The illicit trade in precursor chemicals cannot be quantified as easily as can the licit market, but information on seizures can provide some partial information on trends.

Although annual seizures of precursor chemicals fluctuate greatly, the overall trend for Table I precursors seems to show an increase over the last two decades. By contrast, seizures of Table II substances, although fluctuating, have been following a stable trend overall. The regional distribution of seizures of precursors in Table I and Table II shows a concentration in the Americas, followed, depending on the time frame examined, by Europe or, in more recent years, Asia.

Impact of precursor control on drug supply

Measures employed to control precursor chemicals have had a tangible impact on reducing the diversion of chemicals to the illicit manufacture of drugs, as could be observed through various methods of analysis:

- a) Increased volume of chemicals saved from diversion. The number of shipments stopped before being diverted increased sharply, and seizures of Table I precursors rose 12-fold from the period 1990-1992 to the period 2010-2012, the former period being the initial years of international precursor control. This may point to the effectiveness of precursor control, although it is not conclusive proof;
- b) *High interception rates*. Measuring seizures compared with the overall amount estimated to have been di-

verted into illicit manufacture, show that about 15 per cent of diverted potassium permanganate (in the range of 10-28 per cent) and 15 per cent of diverted acetic anhydride (in the range of 7-22 per cent) have been intercepted over the period 2007-2012. Estimated diversions are equivalent to just 2 per cent of international trade in potassium permanganate and 0.2 per cent of international trade in acetic anhydride;

- c) Higher volumes of precursor seizures compared with the volume of seizures of the substances those precursors are used to manufacture. Seizures of precursors of "ecstasy", expressed in terms of the amount of "ecstasy" they could be used to manufacture (end-product equivalent), were almost a fifth larger than "ecstasy" seizures over the period 2007-2012. Seizures of amphetamine and methamphetamine precursors calculated in terms of their end-product equivalents were more than twice as high as amphetamine and methamphetamine seizures over the same period;
- Reduced availability of drugs due to precursor control. Three examples can be cited in which precursor control appears to have reduced the supply of precursors and led to a consequent reduction in the availability of the drug. The first is the shrinking of the market for lysergic acid diethylamide (LSD), which could be at least partly attributed to improved control of LSD precursors. The shrinking of that market is reflected in the 75 per cent decline in use of LSD among high school students in the United States over the period 1996-2013, which is highly correlated to the decreased availability of the substance. The second example is the decline in "ecstasy" use in many countries, associated with a lower purity of the substance, connected with the limited availability of that drug's main precursor in the period 2007-2010. Thirdly, the improved control of precursors of methaqualone seems to have led to a decline in its availability and thus also its use over the past two decades;
- e) Prices in the illicit market. While the price of acetic anhydride in the licit market fluctuated between \$1 and \$1.50 per litre in recent years, the price of illicit acetic anhydride in Afghanistan rose over the years, at times reaching peaks of some \$430 per litre (2011), up from \$8 in 2002. The price rises can be linked to improvements in precursor control. They also had an impact on the cost of heroin production. The proportion of acetic anhydride in total production costs of heroin in Afghanistan rose from 2 per cent in 2002 to 26 per cent in 2010 before falling to some 20 per cent in 2013.

New strategies by operators of drug laboratories

Improved precursor controls at the global level have prompted clandestine operators of illegal laboratories to develop a number of counter-strategies. Those strategies include:

- the use of more sophisticated ways to obtain precursor chemicals
- the use of transit countries with weak control systems
- the emergence of organized criminal groups specialized in the supply of precursor chemicals
- the creation of front companies to conceal illegal imports
- the domestic diversion and subsequent smuggling of precursor chemicals to final destinations in order to bypass the international control system
- the use of the Internet
- the misuse of pharmaceutical preparations (notably preparations containing ephedrine or pseudoephedrine) and,
- the emergence of non-scheduled precursor chemicals, including various pre-precursors that can be easily converted into the required precursors.

Thus, new pre-precursors for the manufacture of amphetamine-type stimulants have emerged in recent years, including APAAN, various esters of phenylacetic acid, 3,4-methylenedioxyphenyl-2-propanone, methyl glycidate and methylamine. Some of those substances, which are controlled only in a limited number of countries, have become major substitutes for the precursor chemicals used in the past and are now seized in greater quantities than are the internationally controlled precursors of amphetamine-type stimulants.

Another counter-strategy is the manufacture of new psychoactive substances that can be manufactured with chemicals not under international control.

All of these strategies used by clandestine manufacturers create a new set of challenges for the international precursor control system. At the same time, they reflect the fact that precursor control does have an impact. There are already some instruments available at the international level to deal with the emerging problems — use of the "know-your customer" principle, the limited international special surveillance list, the Pre-Export Notifications (PEN) Online and the Precursors Incident Communication System (PICS) — but they are yet to be implemented in a number of countries. Their universal and effective implementation would be a step forward in meeting these challenges.