Recent Statistics and Trend Analysis of Illicit Drug Markets

A. Extent of Illicit Drug Use and Health Consequences

Extent of drug use

In 2011, between 167 and 315 million people aged 15–64 were estimated to have used an illicit substance in the preceding year. This corresponds to between 3.6 and 6.9 per cent of the adult population. The prevalence of illicit drug use and the numbers of problem drug users — those with drug use disorders or dependence — have remained stable.\(^1\) Since 2009, the prevalence of cannabis, opioids, and opiates use has gone up, while the prevalence of use of cocaine, amphetamine-type stimulants and “ecstasy”-group substances appears to have followed a declining trend between 2009 and 2011.\(^2\) Nevertheless, since 2008 there has been an overall 18 per cent increase in the estimated total number of people who had used an illicit substance in the preceding year, which to some extent reflects both an increase in the global population and a slight increase in the prevalence of illicit drug use. A series of maps are presented in Annex I showing the prevalence of drug use among the population aged 15-64 for cannabis, amphetamines, opioids, opiates, cocaine and ecstasy. In addition, a table is included providing estimates of the prevalence and total number of users for each drug type at the global, regional and subregional levels.

Cannabis

Cannabis use has increased globally, particularly in Asia since 2009. Although epidemiological data is not available, experts from the region report a perceived increase in use. The regions with a prevalence of cannabis use that is higher than the global average continue to be West and Central Africa (12.4 per cent), Oceania (essentially Australia and New Zealand, 10.9 per cent), North America (10.7 per cent) and Western and Central Europe (7.6 per cent). Cannabis use in North America and in most parts of Western and Central Europe is considered to be stable or declining.
Amphetamine-type stimulants

Use of ATS, excluding “ecstasy”, remains widespread globally, and appears to be increasing. Although prevalence estimates are not available from Asia and Africa, experts from these regions continue to report a perceived increase in the use of ATS. While the use of ATS was already a problem in East and South-East Asia, there are reports of increasing diversion of precursor chemicals, as well as increased seizures and manufacture of methamphetamine, combined with an increase in its use. Current data from the drug use survey in Pakistan, for instance supports this assessment. Use of ATS is emerging in Pakistan, with a reported annual prevalence of 0.1 per cent among the general population. High levels of ATS use are reported in Oceania (2.1 per cent in Australia and New Zealand), Central and North America (1.3 per cent each) and Africa (0.9 per cent), while the estimated annual prevalence of ATS use in Asia (0.7 per cent) is comparable with the global average.

Opioids

The use of opioids (heroin, opium and prescription opioids) has increased in Asia since 2009, particularly in East, South-East, Central and South-West Asia. While reliable data do not exist for most parts of Africa, experts report an increase in the use of opioids there. North America 3.9 per cent), Oceania (3.0 per cent), the Near and Middle East/South-West Asia (1.9 per cent) and East and South-Eastern Europe (1.2 per cent) show a prevalence of opioid use that is higher than the global average. The use of opioids (heroin and opium) has remained stable in some regions, nevertheless, a high prevalence is reported in the Near and Middle East/South-West Asia (1.2 per cent), primarily in Afghanistan, Iran (Islamic Republic of) and Pakistan, as well as Central Asia (0.8 per cent), Eastern and South-Eastern Europe (0.8 per cent), North America (0.5 per cent) and West and Central Africa (0.4 per cent).

Cocaine

The two major markets for cocaine, North America and Western and Central Europe, registered a decrease in cocaine use between 2010 and 2011, with annual prevalence among the adult population in Western and Central Europe decreasing from 1.3 per cent in 2010 to 1.2 per cent in 2011, and from 1.6 per cent to 1.5 per cent in North America. While cocaine use in many South American countries has decreased or remained stable, there has been a substantial increase in Brazil that is obvious enough to be reflected in the regional prevalence rate for 2011. Australia has also reported an increase in cocaine use.

“Ecstasy”

Overall, use of “ecstasy” (i.e., methylenedioxymethamphetamine (MDMA)) has been declining, although it seems to be increasing in Europe. The three regions with a high prevalence of “ecstasy” use continue to be Oceania (2.9 per cent), North America (0.9 per cent) and Europe (0.7 per cent). Use continues to be associated with young people and recreational and nightlife settings in urban centres. For example, of the 2 million past-year users of “ecstasy” in Europe, 1.5 million were between 15 and 34 years of age.四种

Non-medical use of prescription drugs

While global estimates of non-medical use of prescription drugs are not available, such use remains a major public health concern. The misuse or non-medical use of tranquilizers and sedatives such as benzodiazepines and barbiturates remains high and, at times, higher than that of many illicit substances. Along with the single use of tranquilizers (e.g. benzodiazepines), their use is commonly observed among polydrug users, especially among users of heroin who use benzodiazepines to enhance its effects, as well as those on methadone medication. Benzodiazepines are also often cited among the other substances reported in both fatal and non-fatal overdose cases among opioid users.

The misuse of tranquilizers and sedatives is spread across all regions. Among the 103 countries that have provided information on the non-medical use of such substances through the annual report questionnaire, nearly 60 per cent ranked them as among the three most misused types of substances in their country, while nearly 15 per cent of countries ranked them as the most commonly used substances. In countries with data on the annual prevalence of tranquilizers, prevalence varied between 0.4 per cent in England and Wales and 12.9 per cent in Estonia.

The misuse of prescription opioids is also increasingly being reported from different regions. Tramadol is an opioid painkiller that is not under international control, whose misuse is being reported from many countries in Africa, the Middle East, Asia (including China) and the

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6 P. Oliver, R. Forrest and J. Keen, “Benzodiazepines and cocaine as risk factors in fatal opioid overdoses” (London, National Treatment Agency for Substance Misuse, April 2007).

7 Algeria, Bulgaria, Burkina Faso, Estonia, Honduras, Hungary, Italy, Netherlands, Nicaragua, Peru, Poland, Romania, Serbia and Venezuela (Bolivarian Republic of).
11 World Health Organization, “Dextromethorphan: pre-review report”, prepared for the thirty-fifth meeting of the Expert Committee on Drug Dependence, held in Hammamet, Tunisia, from 4 to 8 June 2012.


13 World Health Organization, “Dextromethorphan: pre-review report”.

14 This estimate is based on information provided by 83 countries that together account for 81 per cent of the global population aged 15-64.
Table 1. Estimated number and prevalence of people who inject drugs among the general population aged 15-64, 2011

<table>
<thead>
<tr>
<th>Region</th>
<th>Subregion</th>
<th>Injecting drug users</th>
<th>Prevalence (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Estimated number</td>
<td>Low</td>
</tr>
<tr>
<td>AFRICA</td>
<td></td>
<td></td>
<td>304,925</td>
</tr>
<tr>
<td>AMERICA</td>
<td></td>
<td></td>
<td>2,908,787</td>
</tr>
<tr>
<td>North America</td>
<td></td>
<td></td>
<td>1,935,144</td>
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<td>Latin America and the Caribbean</td>
<td></td>
<td></td>
<td>973,643</td>
</tr>
<tr>
<td>ASIA</td>
<td></td>
<td></td>
<td>4,328,212</td>
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<tr>
<td>Central Asia and Transcaucasia</td>
<td></td>
<td></td>
<td>659,582</td>
</tr>
<tr>
<td>East and South-East Asia</td>
<td></td>
<td></td>
<td>2,959,863</td>
</tr>
<tr>
<td>Near and Middle East/ South-West Asia</td>
<td></td>
<td></td>
<td>462,269</td>
</tr>
<tr>
<td>South Asia</td>
<td></td>
<td></td>
<td>246,498</td>
</tr>
<tr>
<td>EUROPE</td>
<td></td>
<td></td>
<td>3,553,859</td>
</tr>
<tr>
<td>Eastern/South-Eastern Europe</td>
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<td></td>
<td>2,821,599</td>
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<tr>
<td>Western/Central Europe</td>
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<td></td>
<td>732,260</td>
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<td>OCEANIA</td>
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<td>GLOBAL</td>
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<td></td>
<td>11,214,411</td>
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</tbody>
</table>

Sources: United Nations Office on Drugs and Crime, data from the annual report questionnaire; progress reports of the Joint United Nations Programme on HIV/AIDS (UNAIDS) on the global AIDS response (various years); the Reference Group to the United Nations on HIV and Injecting Drug Use; estimates based on United Nations Office on Drugs and Crime data; and national Government reports.

Fig. 4. Changes in the prevalence of people who inject drugs use among the adult population aged 15-64, 2008-2011

Source: UNODC and Reference Group to the United Nations on HIV and Injecting Drug Use.
Note: A ratio of 1.0 indicates no change in the estimates. Chart shows countries where the prevalence of injecting drug use has at least either doubled (ratio is 2.0 or greater) or halved (ratio is 0.5 or less). Changes in prevalence may reflect improved reporting on prevalence estimates, as well as changes in injecting behaviour.

Fig. 5. Changes in the number of people who inject drugs among the adult population aged 15-64, 2008-2011

Source: UNODC and Reference Group to the United Nations on HIV and Injecting Drug Use.
Note: Changes may reflect improved reporting on prevalence estimates, as well as changes in injecting behaviour.
than four times the global average. Injecting drug use also remains a serious public health concern in a number of countries in East and South-East Asia, with the region accounting for 27 per cent of the global total. South Asia has the lowest level of injecting drug use (0.03 per cent, mostly as a result of the low prevalence rate reported in India), considerably lower than that of any other region.

Countries and areas with the highest rates of injecting drug use — more than 3.5 times the global average — are Azerbaijan (5.2 per cent), Seychelles (2.3 per cent), the Russian Federation (2.3 per cent), Estonia (1.5 per cent), Georgia (1.3 per cent), Canada (1.3 per cent), the Republic of Moldova (1.2 per cent), Puerto Rico (1.15 per cent), Latvia (1.15 per cent) and Belarus (1.11 per cent). China, the Russian Federation and the United States are the countries with the largest numbers of people who inject drugs. Combined, they account for an estimated 46 per cent, or nearly one in two, people who inject drugs globally.

HIV among people who inject drugs

Of the estimated 14.0 million (range: 11.2 million to 22.0 million) people who inject drugs worldwide, UNODC estimates that 1.6 million (range: 1.2 million to 3.9 million) are living with HIV. That represents a global prevalence of HIV of 11.5 per cent among people who inject drugs. Along with the estimates of the total number of people who inject drugs, the global total and prevalence rates of people who inject drugs living with HIV for 2011 is also lower than the estimated 3 million (18.9 per cent prevalence among people who inject drugs) previously presented by the Reference Group to the United Nations on HIV and Injecting Drug Use for 2008. These reduced estimates are in large part a result of the availability of more reliable information on HIV prevalence among people who inject drugs.

The total number of people who inject drugs and are living with HIV in a particular region is a function of three variables: the prevalence of HIV among people who inject drugs; the prevalence of people who inject drugs; and the total population in the region aged 15-64. These variables are depicted in figure 8.

Table 2. People who inject drugs living with HIV, 2011

<table>
<thead>
<tr>
<th>Region</th>
<th>Subregion</th>
<th>HIV among injecting drug users</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Estimated number</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Low</td>
</tr>
<tr>
<td>AFRICA</td>
<td></td>
<td>36,506</td>
</tr>
<tr>
<td>AMERICA</td>
<td></td>
<td>222,053</td>
</tr>
<tr>
<td>North America</td>
<td></td>
<td>159,836</td>
</tr>
<tr>
<td>Latin America and the Caribbean</td>
<td></td>
<td>62,217</td>
</tr>
<tr>
<td>ASIA</td>
<td></td>
<td>440,559</td>
</tr>
<tr>
<td>Central Asia and Transcaucasia</td>
<td></td>
<td>54,858</td>
</tr>
<tr>
<td>East and South-East Asia</td>
<td></td>
<td>256,396</td>
</tr>
<tr>
<td>Near and Middle East/South-West Asia</td>
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<td>108,539</td>
</tr>
<tr>
<td>South Asia</td>
<td></td>
<td>20,767</td>
</tr>
<tr>
<td>EUROPE</td>
<td></td>
<td>466,243</td>
</tr>
<tr>
<td>Eastern/South-Eastern Europe</td>
<td></td>
<td>419,715</td>
</tr>
<tr>
<td>Western/Central Europe</td>
<td></td>
<td>46,528</td>
</tr>
<tr>
<td>OCEANIA</td>
<td></td>
<td>1,095</td>
</tr>
<tr>
<td>GLOBAL</td>
<td></td>
<td>1,166,456</td>
</tr>
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</table>

Source: United Nations Office on Drugs and Crime, data from the annual report questionnaire; progress reports of the Joint United Nations Programme on HIV/AIDS (UNAIDS) on the global AIDS response (various years); the Reference Group to the United Nations on HIV and Injecting Drug Use; estimates based on United Nations Office on Drugs and Crime data; and national Government reports.

15 The estimate is based on the reporting of the HIV prevalence rate among people who inject drugs from 186 countries.
1. RECENT STATISTICS AND TREND ANALYSIS OF ILLICIT DRUG MARKETS

Map 1. Prevalence of people who inject drugs among the general population aged 15-64, 2011 or latest year available

Map 2. Prevalence of HIV among people who inject drugs, 2011 or latest year available

Source: United Nations Office on Drugs and Crime, data from the annual report questionnaire; progress reports of the Joint United Nations Programme on HIV/AIDS (UNAIDS) on the global AIDS response (various years); the Reference Group to the United Nations on HIV and Injecting Drug Use; estimates based on United Nations Office on Drugs and Crime data; and national Government reports.

Note: The boundaries shown on this map do not imply official endorsement or acceptance by the United Nations. Dashed lines represent undetermined boundaries. 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. The final boundary between the Sudan and South Sudan has not yet been determined.
A. Extent of illicit drug use and health consequences

WORLD DRUG REPORT 2013

Fig. 6. Changes in the prevalence of HIV among people who inject drugs, 2008-2011

[Graph showing changes in prevalence with countries listed on the x-axis.]

Source: UNODC and Reference Group to the United Nations on HIV and Injecting Drug Use.

Note: Ratio of latest to previous Reference Group estimates of the prevalence of HIV among injecting drug users. A ratio of 1.0 indicates no change in the estimates. Chart shows countries where the prevalence of HIV among injecting drug users has either at least doubled (ratio is 2.0 or greater) or halved (ratio is 0.5 or less). Changes may reflect improved reporting on prevalence estimates as well as changes in injecting behaviour and HIV infection.

Fig. 7. Changes in the number of people who inject drugs living with HIV from 2008 to 2011

[Graph showing changes in number with countries listed on the x-axis.]

Source: UNODC and Reference Group to the United Nations on HIV and Injecting Drug Use.

Note: Calculation based on 2011 adult population. Changes may reflect improved reporting on prevalence estimates, as well as changes in injecting behaviour and HIV infection.

Fig. 8. Prevalence rates for people who inject drugs and prevalence and number of people who inject drugs living with HIV (by region)

<table>
<thead>
<tr>
<th>Region</th>
<th>Population (aged 15-64) (1,000’s)</th>
<th>Prevalence (%) IDUs among population aged 15-64</th>
<th>Prevalence (%) HIV among IDUs</th>
<th>Number of IDUs living with HIV (1,000’s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oceania</td>
<td></td>
<td>0.53</td>
<td>1.0</td>
<td>1.3</td>
</tr>
<tr>
<td>Western/ Central Europe</td>
<td></td>
<td>0.27</td>
<td>6.7</td>
<td>58.2</td>
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<tr>
<td>Eastern/ South-Eastern Europe</td>
<td></td>
<td>1.26</td>
<td>14.9</td>
<td>433.8</td>
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<td>South Asia</td>
<td></td>
<td>0.03</td>
<td>8.4</td>
<td>21.2</td>
</tr>
<tr>
<td>Near and Middle East / South-West Asia</td>
<td></td>
<td>0.36</td>
<td>24.0</td>
<td>228.8</td>
</tr>
<tr>
<td>East and South-East Asia</td>
<td></td>
<td>0.25</td>
<td>8.7</td>
<td>328.1</td>
</tr>
<tr>
<td>Central Asia and Transcaucasia</td>
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<td>1.33</td>
<td>8.5</td>
<td>59.2</td>
</tr>
<tr>
<td>Latin America and the Caribbean</td>
<td></td>
<td>0.45</td>
<td>6.9</td>
<td>98.7</td>
</tr>
<tr>
<td>North America</td>
<td></td>
<td>0.65</td>
<td>13.5</td>
<td>270.7</td>
</tr>
<tr>
<td>Africa</td>
<td></td>
<td>0.17</td>
<td>11.8</td>
<td>117.5</td>
</tr>
</tbody>
</table>

Source: United Nations Office on Drugs and Crime, data from the annual report questionnaire and national Government reports.

Note: IDUs stands for injecting drug users.
The region with the highest prevalence of HIV among people who inject drugs is the Near and Middle East/South-West Asia (24 per cent). This is driven primarily by high rates of HIV among people who inject drugs in Pakistan (37.0 per cent) and Iran (Islamic Republic of) (15.1 per cent). Almost 30 per cent of the global population who inject drugs and are living with HIV, however, are in Eastern and South-Eastern Europe. Similar to Pakistan, Ukraine has a large population of people who inject drugs, with a very high prevalence of HIV (22.0 per cent).

International data show that rates of HIV prevalence are much higher among prison inmates than the general population. From the annual report questionnaire, the reported prevalence rate of HIV in the prison population varies from 0.2 per cent in Hungary to 15 per cent in Kyrgyzstan; these rates are between 2 and 37 times higher than in the general adult population.

**Hepatitis among people who inject drugs**

Another major global public health concern is hepatitis C, which can lead to liver diseases such as cirrhosis and cancer. Infection with the hepatitis C virus (HCV) is highly prevalent among people who inject drugs. UNODC estimates that the global prevalence of HCV among people who inject drugs is 51.0 per cent, meaning that 7.2 million people who inject drugs were living with HCV in 2011. The largest numbers of people who inject drugs and are living with HCV are found in East and South-East Asia, Eastern and South-Eastern Europe and North America. The highest HCV prevalence rates among people who inject drugs in countries with predominantly large numbers of people who inject drugs (more than 100,000 to help ensure that a stable prevalence can be determined) are mostly located in North America and East and South-East Asia: Mexico (96.0 per cent), Viet Nam (74.1 per cent), United States (73.4 per cent), Canada (69.1 per cent), Malaysia (67.1 per cent), China (67.0 per cent) and Ukraine (67.0 per cent).

The global prevalence of the hepatitis B virus (HBV) in 2011 among people who inject drugs is estimated at 8.4 per cent, or 1.2 million people, based on reporting from 63 countries. The highest prevalence of HBV among people who inject drugs is found in the Near and Middle East/South West Asia (22.5 per cent) and Western and Central Europe (19.2 per cent).

As is the case for other infectious diseases, such as tuberculosis and HIV, the prevalence of hepatitis and, in particular, hepatitis C, is very high among the prison population.
Drug treatment: costs and benefits

There are different treatment modalities available in different countries, and studies have shown that treatment interventions can have great benefits. Long-term drug treatment may, on average, save money, and result in a host of other benefits. Data demonstrate that the benefits of treatment vary according to the drug of choice and the severity of dependence. In a meta-analysis of over 34 randomized controlled trials, cognitive behavioural therapy was found to have the largest effect on cannabis dependence, followed by opioid dependence and polysubstance dependence.a Cognitive behavioural therapy has also been shown to be effective against substance abuse occurring in tandem with suicidal thoughts in adolescents.b Opiate substitution therapy has also proven to increase the probability of survival, owing to a lower rate of suicide attempts, diminished likelihood of HIV transmission and reduced participation in crime. A comparison of involvement in criminal activity, pre- and post-treatment, shows a significant drop after therapy for a variety of criminal behaviours. In a study of over 23,000 people who inject drugs, the incidence of HIV was 54 per cent lower among those who had received methadone maintenance therapy compared with those who did not. Additional benefits to society include lower rates of driving under the influence of drugs or alcohol, and higher employment among treated users. In the United States, one year of methadone maintenance treatment for opioid dependence costs approximately $4,700, whereas one year of imprisonment costs approximately $24,000. The weight of evidence shows enormous benefits, both in dollars saved and improved quality of life.

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Problem drug use as reflected by the demand for treatment

It is estimated that approximately one in six problem drug users globally receives treatment for drug use disorders or dependence each year. However, there is a greater than six fold variation between the regions. Africa, in particular, stands out, with only one in 18 problem drug users accessing treatment services, predominantly for treatment related to cannabis use disorders. In Latin America and the Caribbean and Eastern and South-Eastern Europe, approximately one in 11 problem drug users accesses treatment services, well below the global average. Conversely, in North America, each year an estimated one in three problem drug users receives treatment interventions. To a certain extent, these regional differences reflect varying reporting systems for treatment demand, but they also undoubtedly demonstrate the wide disparity in the availability and accessibility of drug dependence treatment services in different regions.

Drug-related deaths

Drug-related deaths show the extreme harm that can result from drug use. These deaths are invariably premature, occurring at a relatively younger age. For example, according to the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), the mean age for drug-related deaths for countries in Europe varies from 26 to 44 years, and such deaths can largely be prevented. UNODC estimates that there were between 102,000 and 247,000 drug-related deaths in 2011, corresponding to a mortality rate of between 22.3 and 54.0 deaths per million population aged 15-64. This represents between 0.54 per cent and 1.3 per cent of mortality from all causes globally among those aged 15-64.

The extent of drug-related deaths has essentially remained unchanged globally and within regions.

Regional trends in drug use

Africa

Africa remains a region with minimal systematic information available on either the extent of or patterns or trends related to drug use. Nevertheless, estimates from Africa indicate a high prevalence of cannabis use (7.5 per cent, or nearly double the global average), which is particularly high in West Africa. The use of ATS (0.9 per cent), cocaine (0.4 per cent) and opiates (0.3 per cent) remains comparable with the global average.

The use of opioids is perceived to be increasing significantly in Africa, with experts in the region also reporting an increase. Many countries also reported an increase in use of cannabis, ATS and cocaine in 2011. Cocaine use in particular is perceived to be increasing in the Western coastal countries and is considered to be linked with the trafficking of cocaine into and through the region. A recent study in the Dakar region of Senegal indicated that, while heroin use had declined since 2000, consumption of crack

<table>
<thead>
<tr>
<th>Region</th>
<th>Number of drug-related deaths</th>
<th>Mortality rate per million aged 15-64</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>36,435</td>
<td>55,533</td>
</tr>
<tr>
<td>North America</td>
<td>47,813</td>
<td>47,813</td>
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<tr>
<td>Latin America and the Caribbean</td>
<td>4,756</td>
<td>8,097</td>
</tr>
<tr>
<td>Asia</td>
<td>104,116</td>
<td>118,443</td>
</tr>
<tr>
<td>Western and Central Europe</td>
<td>8,087</td>
<td>8,087</td>
</tr>
<tr>
<td>Eastern and South-Eastern Europe</td>
<td>7,382</td>
<td>7,382</td>
</tr>
<tr>
<td>Oceania</td>
<td>1,957</td>
<td>1,980</td>
</tr>
<tr>
<td>Global</td>
<td>210,546</td>
<td>247,336</td>
</tr>
</tbody>
</table>

Source: United Nations Office on Drugs and Crime, data from the annual reports questionnaire, the Inter-American Drug Abuse Control Commission (CICAD) and the European Monitoring Centre for Drugs and Drug Addiction, Louisa Degenhardt and others, "Illicit drug use", in Comparative Quantification of Health Risks: Global and Regional Burden of Disease Attributable to Selected Major Risk Factors, vol. 1, M. Ezaati and others, eds. (Geneva, World Health Organization, 2004). Data for Africa have been adjusted to reflect the 2011 population. The wide range in the estimates for Asia reflects the low level of reporting from countries in the region. The best estimate for Asia is towards the upper end of the range, because a small number of highly populated countries report a relatively high mortality rate, which produces a high regional average.

18 Those who regularly use opiates, cocaine or amphetamines, are people who inject drugs or are diagnosed with dependence or substance use disorders.

19 Member States may report treatment episodes rather than persons in treatment, include only inpatient services or provide data that is geographically limited (e.g. for only the capital city).

20 According to World Population Prospects: The 2010 Revision (United Nations, Department of Economic and Social Affairs), an average of 18.94 million deaths will occur each year for those aged 15-64 from all causes of mortality during the period 2010-2015.
Drug-related deaths in the United Kingdom of Great Britain and Northern Ireland

Within the United Kingdom, data from England and Wales show that drug misuse was responsible for 10 per cent of deaths from all causes for those aged 20-39 in 2011. Heroin and morphine accounted for most of the deaths, but between 2010 and 2011 the number of deaths associated with these two drugs declined by 25 per cent, from 791 to 596. This decline might have been associated with the heroin “drought” experienced in the United Kingdom starting in 2010. However, over the same time period, the number of deaths related to the use of methadone, reportedly mixed with benzodiazepines and/or alcohol, increased by 37 per cent, from 355 to 486. A similar situation was observed in Scotland, where there was a 19 per cent decline in the number of deaths involving heroin and morphine, from 254 in 2010 to 206 in 2011, with a simultaneous 58 per cent increase in the number of deaths associated with methadone, from 174 in 2010 to 275 deaths in 2011. Across the United Kingdom, the involvement of multiple substances implicated in drug-related deaths, notably the use of opiates/opioid analgesics, benzodiazepines and alcohol, has been noted, highlighting the increased risk associated with polydrug use.

Cocaine had increased, and that currently between 70 per cent and 80 per cent of crack users were also using heroin. Similarly, heroin trafficking through the coastal regions of East Africa is believed to have caused an increase in heroin and injecting drug use. In a behavioural surveillance study among people who inject drugs in Seychelles, heroin was the most commonly injected substance; other substances commonly used by injectors included cannabis and alcohol. In Kenya, heroin was the primary drug used by people who inject drugs, while polydrug use of cannabis and flunitrazepam was also commonly reported among those injecting drugs.

In Nigeria, cannabis remains the most commonly used substance, but opioid use is also perceived to be increasing. The misuse of prescription opioids such as pentazocine and codeine-containing cough syrups is considered to be particularly problematic. South Africa reported an increase in the use of heroin, methamphetamine and methadone, while cocaine use remained stable. Treatment facilities across the country reported that heroin use was a growing concern. Polydrug use was also reported as a common phenomenon among drug users in treatment, e.g. the use of cannabis and methaqualone among methamphetamine users and methamphetamine among heroin users, as was the use of benzodiazepines, narcotic analgesics and codeine-containing preparations.

In North Africa, recent information on drug use is available from Algeria and Morocco. While the overall prevalence of different drugs is low in Algeria (use of any illicit drug was reported among 1.15 per cent of the adult population), an increase in the misuse of cannabis and tranquilizers and sedatives has been reported, while the use of opioids and ATS is considered stable. However, an increase in injecting ATS was reported. In Morocco, use of cannabis and heroin had increased, and that currently between 70 per cent and 80 per cent of crack users were also using heroin.

24 Information provided by Nigeria in the annual report questionnaire (2012).
26 Information provided by Algeria and Morocco in the annual report questionnaire (2012).
Driving under the influence of drugs

Worldwide, road traffic injuries are the second most common cause of death for persons between 5 and 29 years of age; 90 per cent of those deaths occur in low- to middle-income countries. The World Health Organization estimates that 1.2 million people die annually from traffic-related injuries and predicts that, by 2030, traffic accidents will be the fifth leading cause of death. Driving under the influence of drugs or alcohol is a powerful predictor of traffic-related deaths; it becomes particularly risky when the two are combined.

While the prevalence rate for driving under the influence of drugs is not known in many parts of the world, recent studies from Brazil, Europe and the United States indicate that it may be more common than previously thought.

In the United States in 2011, 3.4 per cent of those aged 12 and older, or 9.4 million people, reported driving under the influence of illicit drugs. Estimates from the United States indicate that approximately 66 per cent of drivers who test positive for illicit drugs also have alcohol in their system, thereby increasing their risk of causing a fatal traffic accident.

In Brazil, a cross-sectional study of 3,398 drivers found that 4.6 per cent of them tested positive for some illicit substance. Of those who tested positive, 39 per cent tested positive for cocaine, 32 per cent for tetrahydrocannabinol (THC) (cannabis), 16 per cent for amphetamines and 14 per cent for benzodiazepines. In another study in Brazil, drug testing on patients who were admitted to the emergency room after traffic accidents showed that such patients were more likely to have cannabis in their system than alcohol.

In Europe, in a sample of 50,000 randomly tested drivers from 13 countries, approximately 1.9 per cent of drivers tested positive for an illicit substance: traces of THC were detected in 1.3 per cent, cocaine in 0.4 per cent, amphetamines in 0.08 per cent and illicit opioids in 0.07 per cent. Additionally, benzodiazepines were found in 0.9 per cent and medical opioids among 0.35 per cent of European drivers. Among the general driving population, illicit drugs were detected mainly among young male drivers, and at all times of the day, but mostly at the weekends.

Sources: M. Peden and others, eds., World Report on Road Traffic Injury Prevention (Geneva, World Health Organization, 2004); United States, Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Results from the 2011 National Survey on Drug Use and Health: Summary of National Findings, NSDUH Series H-44, HHS Publication No. SMA 12-4713 (Rockville, Maryland, 2012); Substance Abuse and Mental Health Services Administration, “The NSDUH report: state estimates of drunk and drugged driving” (Rockville, Maryland, 2012); European Monitoring Centre for Drugs and Drug Addiction, Driving Under the Influence of Drugs, Alcohol and Medicines in Europe: Findings from the DRUID Project (Luxembourg, Publications Office of the European Union, 2012); and Flavio Pechansky, Paulina do Carmo Arruda Vieira Duarte and Raquel Brandini De Boni, Use of Alcohol and Other Drugs on Brazilian Roads and Other Studies (Porto Alegre, National Secretariat for Drugs Policies, September 2010).

In 2011, compared with 11.6 per cent in 2010 among the population aged 12 years and older. Cannabis use has continued to increase among high-school students. In 2011, an estimated 1 in 15 high-school seniors was a daily or near-daily user of cannabis. Synthetic marijuana, otherwise known as Spice or K2, was assessed for the first time; approximately 11.4 per cent of high school students reported its use in the previous year. The overall prevalence of non-medical use of psychotherapeutics (pain relievers, tranquilizers and sedatives, and stimulants) among persons 12 years or older in the past year also declined, from 6.3 per cent in 2010 to 5.7 per cent in 2011. Similarly, a decline was observed in the use of inhalants, cocaine, prescription painkillers, amphetamine and tranquilizers among high-school students. While the prevalence of “ecstasy” use in 2011 remained stable among the general population, past-year use of “ecstasy” increased among twelfth graders and declined slightly for eighth and tenth graders.

In Canada, the reported use of cannabis in the past year among the population aged 15 years and older declined from 10.7 per cent in 2010 to 9.1 per cent in 2011.28 The
A. Extent of illicit drug use and health consequences

Fig. 12. Trends in annual prevalence of drug use among the population 12 years and older in the United States, 2000-2011

Source: United States, Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Results from the 2011 National Survey on Drug Use and Health: Summary of National Findings, NSDUH Series H-44, HHS Publication No. SMA 12-4713 (Rockville, Maryland, 2012).

use of other substances, including opioids, cocaine and methamphetamine, was reported as stable. The use of the psychoactive plant *Salvia divinorum* among young people in Canada remains of concern.

For Mexico, new estimates for 2011, as well as expert perception, indicate a slight increase since 2008 in the use of cocaine (from 0.4 per cent in 2008 to 0.5 per cent in 2011) and ATS (0.1 per cent to 0.2 per cent). There was also some increase in the use of cannabis and opioids, while use of tranquillizers and sedatives was perceived to be stable. 29

South America, Central America and the Caribbean

The annual prevalence of cocaine use in South America (1.3 per cent of the adult population) is comparable to levels in North America, while it remains much higher than the global average in Central America (0.6 per cent) and the Caribbean (0.7 per cent).

Cocaine use has increased significantly in Brazil, Costa Rica and, to lesser extent, Peru while no change in its use was reported in Argentina. The use of cannabis in South America is higher (5.7 per cent) than the global average, but lower in Central America and Caribbean (2.6 and 2.8 per cent respectively). In South America and Central

Fig. 13. Trends in drug use in selected South American countries

Source: Chile, Consejo Nacional para el Control de Estupefacientes (CONACE), Ministerio del Interior y Seguridad Pública, Noveno Estudio Nacional De Drogas en Población General, 2010 (Santiago, June 2011).

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The coefficient of variation between 16.7 per cent and 33.3 per cent, the estimates of amphetamine, "ecstasy" and lysergic acid diethylamide (LSD) should be interpreted with caution. Since the coefficient of variation was greater than 33.3 per cent and/or the number of observations was less than six, the past-year estimates for opioids, tranquillizers and sedatives, and *Salvia divinorum* are suppressed and not reported. 29

Information provided by Mexico in the annual report questionnaire (2011).
America the use of opioids (0.3 and 0.2 per cent, respectively) and Ecstasy (0.1 per cent each) also remain well below the global average. While opiates use remains low, countries such as Colombia report that heroin use is becoming increasingly common among certain age groups and socio-economic classes.30

Asia

Reliable estimates of the prevalence of different drugs are available for only a few countries in Asia. Overall, drug use in the region remains at low levels. While the annual prevalence rate of use of ATS ranges between 0.2 and 1.2 per cent of the adult population, and that of opioids between 0.3 and 0.5 per cent, the annual prevalence rates for the use of cannabis (1.0–3.1 per cent), “ecstasy” (0.1–0.7 per cent) and cocaine (0.05 per cent) are considerably lower than the global average. In absolute numbers, however, Asia is home to an estimated one quarter to 40 per cent of all illicit drug users worldwide, as well as 60 per cent of opiate users and between 30 and 60 per cent of ATS users.

Recent data available from Pakistan and China indicate an increase in the use of opiates, as well as of ATS. A new survey on drug use, conducted in Pakistan in 2012, reported cannabis as the most commonly used drug, with an annual prevalence of 3.6 per cent, followed by prescription opioids (1.5 per cent) and tranquillizers and sedatives (1.4 per cent). Opiate use (0.9 per cent), though high, remained at levels lower than in Afghanistan and Iran (Islamic Republic of). Most of the opiate use was linked to heroin (0.7 per cent) and, to a lesser extent, opium (0.3 per cent). Use of ATS (0.1 per cent) and cocaine (0.01 per cent) appeared to be low but emerging.

Opioid use remains high in China, with the number of registered heroin users increasing each year: there were 1.24 million in 2011, compared with 1.06 million in 2010. The number and proportion of registered users of ATS are also increasing (38 per cent of all registered users in 2012, compared with 28 per cent in 2010). In addition, there has been a major increase in the number of drug users registered for use of other substances, such as ketamine. In 2012, more than 7 per cent of registered drug users were using ketamine.

The first-ever national survey on drug use in the Maldives was conducted in 2011/12. Cannabis was found to be the most commonly used substance, followed by opiates (annual prevalence of 2.5 per cent and 1.54 per cent, respectively, of the adult population). The use of prescription opioids, cocaine, ATS, sedatives and tranquilizers though, appeared to be less common.31

In Asia, experts from East and South-East Asia reported higher levels of ATS use in 2011. Ketamine use also remained widespread in some countries in the region, and was reported in Brunei Darussalam, China, Indonesia, Malaysia and Singapore.

In Central Asia and Transcaucasia, use of opioids, especially heroin and opium, remains of primary concern, with annual prevalence estimated at 0.9 per cent of the adult population. Azerbaijan (1.5%), Georgia (1.36%) and Kazakhstan (1%) are the countries with considerably high levels of opioid use in the region. There is limited information available from the Near and Middle East/South-West Asia. While the use of ATS is the primary concern among the Gulf countries, misuse of narcotic analgesics, especially tramadol, is reported as an emerging concern, with some countries also reporting tramadol-related deaths.

Europe

In Europe, cannabis remains the most commonly used of illicit substance, with an annual prevalence of 5.6 per cent, followed by cocaine (0.8 per cent), opioids (0.7 per cent) and ATS (0.5 per cent).

In Western and Central Europe, there are indications, based on prevalence estimates, that the use of most illicit substances is declining or stabilizing at high levels. Concerns remain, however, about the replacement of heroin with prescription opioids, the partial replacement of methamphetamine by amphetamine, particularly in the north of Europe, and the continual increase in the introduction and use of NPS.


A. Extent of illicit drug use and health consequences

Western and Central Europe

Except for the use of ATS (annual prevalence of 0.7 per cent), the use of all illicit substances in Western and Central Europe remains higher than the global average. The annual prevalence of cannabis use is estimated at 7.6 per cent of the adult population, with declining or stable trends observed in most countries, except in Estonia and Finland, where the rates of cannabis use show no sign of levelling off.32 The annual prevalence of cocaine use (1.2 per cent) in Western and Central Europe is nearly three times the

[Table 4. Annual prevalence of cocaine use in high-prevalence countries in Europe]

<table>
<thead>
<tr>
<th>Country</th>
<th>2010</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denmark</td>
<td>0.9</td>
<td>1.4</td>
</tr>
<tr>
<td>Ireland</td>
<td>1.5</td>
<td>1.7</td>
</tr>
<tr>
<td>Spain</td>
<td>2.3</td>
<td>2.7</td>
</tr>
<tr>
<td>England and Wales</td>
<td>2.2</td>
<td>2.2</td>
</tr>
</tbody>
</table>


Fig. 15. Drug use trends in selected countries in Europe

A. Germany


B. Spain


C. United Kingdom (England and Wales)


D. Poland


[Table 4. Annual prevalence of cocaine use in high-prevalence countries in Europe]
global average, but has been reported as showing a stabilizing or downward trend. Countries with a high prevalence of cocaine use observed a decline or stabilization in its use compared with the previous survey.

The latest school survey of 15- and 16-year-olds in the European Union also indicates evidence of a reduction or stabilization in the use of all major substances. However, polydrug use among school students remains of concern, with nearly 9 per cent of students reporting use of two or more substances. Cannabis use has remained stable overall among school students in Europe since 2007 (17 per cent lifetime prevalence); its use has increased significantly in 11 countries and declined in 5 others. The Czech Republic, France and Monaco are the only European countries with a higher lifetime prevalence of cannabis use among 15- and 16-year-olds (42 per cent, 37 per cent and 39 per cent, respectively) than the United States (35 per cent).

Overall, in Western and Central Europe, the prevalence of use of “ecstasy” and ATS has remained stable (0.8 per cent and 0.7 per cent, respectively). While methamphetamine use was previously limited to only the Czech Republic and Slovakia, sporadic reports of methamphetamine smoking and availability of crystal methamphetamine have been reported, notably in the Baltic States and northern Europe, while low levels of use and availability for these substances were also reported from the United Kingdom and Germany.

While over 1 million people are currently estimated to have used opioids — in particular, by injecting heroin — there are signs of a decline in its use, with 60 per cent (710,000) of estimated problem opioid users currently receiving substitution and maintenance therapy. Also, injecting practices are on the decline among new heroin users: only one third (36 per cent) of those entering treatment for heroin-related problems reported injecting as the main method of use.

Indicators from some European Union member States also show that heroin has become less available in recent years, and that in some countries it has been replaced by substances such as fentanyl and buprenorphine. This has been the situation mostly in Estonia and Finland, with sporadic or low levels of activities related to fentanyl use reported from countries such as Greece, Italy and the United Kingdom. In Estonia, the annual prevalence of fentanyl use in 2008 was reported as 0.1 per cent, while it was 1.1 per cent among males aged 15-24. Among drug users registered in treatment, three quarters (76 per cent) were there for fentanyl use. Fentanyl has also been described as endemic among people who inject drugs in Estonia.34 There is limited data on fentanyl use in other European countries, but there have been time-limited “outbreaks” of the injection of fentanyl in Bulgaria and Slovakia. Similarly, Finland, Germany and Sweden have reported localized increases in the use of fentanyl and fentanyl-related deaths in recent years.35

The number of people using substances such as gamma-hydroxybutyric acid (GHB), gamma-butyrolactone (GBL), ketamine and, more recently, mephedrone is still relatively low in most European countries, but high levels of use are found in some subpopulations (such as “clubbers”), and it appears that such substances have the potential for more widespread diffusion. A European survey of youth attitudes, in which more than 12,000 young people aged 15-24 were interviewed, estimated that 5 per cent of the respondents had used at least one new psychoactive substance at some point.36 There have also been reports of health problems linked with these substances, including dependence among chronic users, and some unexpected conditions, such as bladder disease and urinary tract symptoms in ketamine users.37,38

### Eastern and South-Eastern Europe

Except for the prevalence of opioid use (usually heroin), which is estimated to be 1.2 per cent of the adult population, the use of other illicit substances in Eastern and South-Eastern Europe is quite low compared with global levels. While there is limited new information from the subregion, Belarus has reported an increase in opioid use, with 68 per cent of opioid users injecting mostly locally.
made preparations of opium such as “kompot” or “cherniashka”, and recent trends in the country indicate an increase in the number of people injecting, as well as in the number of injecting practices, and HIV prevalence among those who inject drugs.40

In the Russian Federation, decreased availability of heroin has led to its partial replacement with local and readily available substances such as acetylated opium, as in Belarus, and with desomorphine, a homemade preparation made from over-the-counter preparations containing codeine.41

Oceania

The prevalence of the use of most illicit substances remains quite high in the Oceania region - essentially Australia and New Zealand - while quantitative data for the Pacific island States remains limited.42 High prevalence rates are reported for the use of cannabis (10.9 per cent), opioids (3.0 per cent), “ecstasy” (2.9 per cent), ATS (2.1 per cent) and cocaine (1.5 per cent).

In a new development in Australia, there has been a decrease in the use of “ecstasy” among police detainees. Only 5 per cent of police detainees in 2010 and 2011 reported using “ecstasy”, half the percentage who reported such use in 2009. Prior to 2012, an increasing interest in synthetic cannabis products was reported.43 In New Zealand, GHB/GBL is reported to be sold with methamphetamine “as a package to help users with the comedown effects of methamphetamine”.44

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39 “Kompot” is a crude preparation from poppy straw, while “cherniashka” is made by mixing locally grown opium poppy with acetic anhydride.

40 Information provided by Belarus in the annual report questionnaire (2011).

41 Information provided by the Russian Federation in the annual report questionnaire (2011).

42 The United Nations Office on Drugs and Crime conducted a workshop, held in Suva, Fiji, from 16 to 19 October 2012 and supported by the Government of Australia, in which national experts reported that cannabis use was quite widespread in Pacific island States and that the non-medical use of prescription drugs such as tramadol, benzodiazepines and other sedatives was reported to be common among some segments of the population. While there are reports of trafficking of cocaine from isolated places in Pacific island States, there is reportedly negligible use among the local population. Similarly, there are indications of local manufacturing of ATS, for instance in Fiji, but negligible use reported among the local population.

43 Information provided by Australia in the annual report questionnaire (2011).

44 Information provided by New Zealand in the annual report questionnaire (2011).