2.5 Amphetamine-type stimulants

2.5.1 Manufacture

Synthetic drug manufacture dominated by ATS, methamphetamine

The majority (99%) of the detected clandestine synthetic drugs laboratories process amphetamine-type stimulants, manufacturing primarily the amphetamine-group substances methamphetamine, amphetamine, methcathinone and ecstasy-group substances. The variety and easy accessibility of the starting materials needed to manufacture synthetic drugs allow production to occur virtually anywhere in the world. It is at the moment impossible to know precisely how much ATS is illicitly manufactured, as independent calculations based on remote sensing of manufacture cannot be done, as is the case with poppy plants and coca bushes.

ATS-related manufacture occurs in all parts of the world; highest concentrations in East and South-East Asia, Europe, North America, Oceania and Southern Africa

The number of reported ATS-related clandestine laboratories increased by 20% in 2008, and for the first time revealed the existence of manufacturing laboratories in Argentina, Brazil, Guatemala, the Islamic Republic of Iran, Kazakhstan and Sri Lanka. Information on the 8,408 detected laboratories came from 32 countries, with the largest numbers reported from the United States of America, the Czech Republic, Australia, China, Slovakia, New Zealand, the Netherlands, Canada and Mexico. However, the number of laboratories is not representative of their output, as many countries with lower total counts report only laboratories with large-scale outputs.

The type and form of ATS manufactured vary across regions. For example, in East and South-East Asia, manufacture of methamphetamine is primarily in tablet form (‘yaba’) and high purity crystalline form (‘ice’), although there are increasing incidents of ecstasy (MDMA) manufacture. Tablets sold as Captagon in the Near and Middle East often contain amphetamine and are sourced from South-East Europe and from within the region. In Europe, ATS manufacture is mainly powder and tableted amphetamine and ecstasy (MDMA), with methamphetamine (‘pervitine’) manufactured primarily in the Czech Republic and Slovakia, and other east European countries, with evidence that manufacture is further spreading. South Africa-based manufacture is predominately methamphetamine (‘tik’) and methcathinone. Methamphetamine and ecstasy are manufactured in all countries of North America, and there are increasing incidents of methamphetamine-related manufacture occurring throughout Central and South America. Methamphetamine and some ecstasy laboratories are commonly encountered in Oceania – primarily Australia and New Zealand.

1 In 2008, China reported 244 unspecified clandestine laboratories. However, this figure is also known to included some opium dens and was therefore not included in the ATS totals.

2 There is no internationally accepted definition of what constitutes a clandestine synthetic drug laboratory. Therefore, figures may include accounts of ATS precursor extraction, drug synthesis, refinement, tableting and packaging, laboratory storage facilities, and chemical and equipment dumpsites as broadly defined ‘laboratories.’
Global methamphetamine laboratory counts increased 29% in 2008 to 8,295, although the numbers are still significantly lower than their peak in 2004 (17,853). The largest numbers reflected increases reported from the United States (7,226), however, along with 3,866 synthesis laboratories, these figures also include incidents of laboratory storage facilities and chemical/equipment dumpsites. Globally, most of the seized laboratories were methamphetamine-related, due to the simplicity of its manufacture and availability of inexpensive precursor chemicals.

Over the last decade, reports of clandestine laboratory incidents have increased in several regions outside of North America, with large growth in East and South-East Asia, Europe and Oceania. Several countries report few but mostly industrial-sized operations, particularly in East Asia and parts of North America, existing for criminal profit.

**Reported amphetamine laboratories in 2008 at the lowest level in a decade**

In 2008, only 45 amphetamine laboratories were reported, the lowest in a decade. Most were reported throughout Europe, particularly in West and Central Europe. The decline in the number of laboratories comes at a time when seizures of amphetamine are at record highs, particularly throughout the Near and Middle East, where not a single laboratory was reported in 2008. Indeed, part of the decline in numbers is due simply to less reporting, such as no reports of amphetamine laboratories being provided from the United States in 2008. In general, there are far fewer amphetamine and 'ecstasy'-group laboratories reported because these substances require far greater sophistication than methamphetamine manufacture.

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3 These represent amphetamine-only laboratories and do not include combination ATS laboratories.
The number of ecstasy-group laboratories declined in 2008, with few reported in Europe

There were 53 ecstasy-group laboratories reported in 2008, a decline from 2007 (72). Because most MDMA operations are medium- to large-scale, the low numbers are not necessarily a sign of low production. Ten countries reported manufacture, with the highest number of dismantled laboratories (14) in Canada in 2008. There were only four laboratories reported from Europe - in Belgium, the Netherlands and Spain - a significant decline from past years. The manufacture of ecstasy-group substances, previously the dominion of West and Central Europe, is now reported in other parts of the world such as East and South-East Asia, North America, Oceania and Latin America.

Illicit synthetic drug manufacture or processing for substances other than ATS (such as precursor chemicals (ephedrine, pseudoephedrine), fentanyl, gamma-hydroxybutyric acid (GHB), ketamine, lysergic acid diethylamide (LSD), methaqualone and phencyclidine (PCP)) is significantly less common. The most commonly manufactured substance is GHB, averaging 15 cases per year. Since 1999, it has been reported in 11 countries in every region of the world, except for Latin America. Illicit manufacture of ketamine has been reported in China. Methaqualone laboratories are commonly seized in South Africa (known locally as ‘mandrax’), but have also been reported in China, India and Kenya. Since 1999, the dismantling of illicit PCP laboratories has only been reported in the United States. 

4 Neither GHB or ketamine are under international control, although they are under control in many countries. As such, their figures may be significantly under-reported.
5 China reported seizing significant ketamine laboratories again in 2008, however, specific figures were not provided.
6 Reports of methaqualone manufacture were not provided by South Africa in 2008.
Precursor chemicals for ATS manufacture

Chemical precursors are necessary for the synthesis of amphetamine-type stimulants (ATS), and most of the chemicals commonly used fall under international control. Their seizures are typically reported to the International Narcotics Control Board (INCB) and can provide some indications about trends in clandestine manufacturing. In 2008, only 31 mt of ATS-related precursor chemicals under international control were reported seized—the lowest in a decade.

Seizures in 2008 included:

Amphetamine-group:
- Methamphetamine: 12.6 mt of ephedrine and 5.1 mt of pseudoephedrine, sufficient to manufacture approximately 11.8 mt of methamphetamine.1
- Amphetamine: 5,620 litres of phenyl-2-propoanone (P-2-P), sufficient for 2.8 mt of amphetamine or methamphetamine; 1.5 mt norephedrine, sufficient to manufacture 984 kg of amphetamine; and 155 kg of phenylacetic acid, sufficient for just 39 kg of amphetamine or methamphetamine.

Ecstasy-group:
- 2,823 litres of 3,4-MDP-2-P, enough to manufacture 2.3 mt of MDMA;
- 1,904 l of safrole oil, sufficient to manufacture 401 kg of MDMA;
- 1.4 mt of piperonal which could be converted into 527 kg of MDMA; and
- 1 l of isosafrole, used in the manufacture of MDMA.

The low amounts of precursor chemicals seized are inconsistent with the size of the consuming market, suggesting that much of the trafficking of precursors needed for ATS manufacture goes undetected. Some of the decline is due in part to shipments being stopped before they depart through notification via INCB’s PEN Online system. There is evidence of criminal organizations rapidly adapting their strategies to avoid control and continue illicit manufacture by: 1) shifting precursor chemical trafficking routes through new locations, such as Africa; 2) relocating manufacturing operations to new countries, such as moving laboratories from North America to Central America; 3) shifting to new physical forms of precursor chemicals, such as pharmaceutical preparations in tablet or liquid forms; and 4) utilizing precursor chemicals outside international control, such as derivatives of phenylacetic acid (PAA). In March 2010, the Commission on Narcotics Drugs at its fifty-third session decided to reschedule PAA to Table I, substantially increasing the international control over this precursor chemical.

1 These figures largely represent raw chemical seizures and in some cases pharmaceutical preparations, and thus are not representative of all precursors seized.

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**Fig. 191: Reported seizures of ATS precursor chemicals, expressed in mt of ATS equivalents, 1999-2008**

Source: UNODC calculations based on INCB data and conversion factors. (INCB, Precursors and chemicals frequently used in the illicit manufacture of narcotic drugs and psychotropic substances, 2009, March 2010 and previous years)
2. Drug statistics and trends  

Amphetamine-type stimulants

2.5.2 Seizures

Trafficking of amphetamine-type stimulants (ATS), along with their production, has come to affect the entire globe. Seizure data, however, point to different types of ATS prevailing in different parts of the world, and different trends can be observed in global and regional seizure totals for the different types of ATS.

Amphetamine-type stimulants are broadly categorized into two groups: the amphetamines group, comprised of amphetamine, methamphetamine and non-specified amphetamines, and the 'ecstasy' group. Total seizures in the amphetamines group reached 47.4 mt in 2008, slightly exceeding the level in 2007 (43.8 mt), as well as the previous record level registered in 2006 (45.9 mt). On the other hand, 'ecstasy' seizures fell markedly in 2008, dropping to 3.86 mt – the lowest level since 1999. Over the period 2000-2008, seizures of 'ecstasy' fluctuated considerably, while methamphetamine seizures were less erratic; in both cases, seizure totals stayed within the same order of magnitude. The most pronounced expansion over this period was observed in seizures of amphetamine, which grew almost eight-fold over a time span of eight years, mainly due to increases in the Near and Middle East.

While seizures of amphetamine in the Near and Middle East/South-West Asia represented almost two thirds of the global total in 2008, a majority of methamphetamine seizures were attributable to countries in East and South-East Asia. North America accounted for most of the remaining seizures of methamphetamine, as well as – for the first time – more than one half of global 'ecstasy' seizures. The significant increase in the North American share of global 'ecstasy' seizures was partly due to an increase in 'ecstasy' seizures in the United States, but also to decreases in other regions, notably West and Central Europe. On the other hand, West and Central Europe continued to account for approximately one third of global seizures of amphetamine. Almost 90% of seizures of non-specified amphetamines were recorded in West and Central Africa, which remains a priority area in terms of responding to the drug problem, starting with a better understanding of the nature of drugs in the illicit market.

Amphetamine

Global seizures of amphetamine amounted to a record 24.3 mt in 2008, essentially sustaining the high level of 2007 (23.7 mt). The Near and Middle East/South-West Asia and Europe together accounted for 97% of seizures in 2008. Since the year 2000, amphetamine seizures have grown considerably in both these regions, but the growth rate in the Near and Middle East/South-West Asia clearly outpaced that in Europe.

One caveat, however, needs to be made. Most of the seizures in the Near and Middle East/South-West Asia are in tablet form, and there are indications that – when converted into weight terms – the weight of the entire tablet is used, and not only the weight of the active ingredient (amphetamine). This could inflate the seizures in this part of the world by a factor of ten or more. It does not seriously impact the growth rates, but possibly the absolute levels of seizures reported from the countries in the Near and Middle East/South-West Asia.

Reports of amphetamine seizures from countries in the Middle East continue to refer predominantly to tablets bearing the Captagon logo. The nature of the psychoactive ingredients in such tablets is not always clear, but reports suggest that amphetamine trafficked from South-East Europe is the main ingredient in Captagon tablets found in the consumer markets of the Middle East (notably Saudi Arabia), frequently alongside caffeine. Laboratories may also exist in countries along this route, possibly carrying out the conversion into tablet form. Jordan, Lebanon, Turkey and the Syrian Arab Republic serve as important transit points.

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7 Amphetamine-type stimulants are seized in various forms, including liquid and tablet form, and may be reported by weight, volume, number of tablets or other units. In specific cases, seizure amounts may be reproduced as reported by countries, but aggregate quantities are expressed by weight. For the purposes of the aggregation, one tablet is assumed to contain 30 mg of active ingredient, with the exception of 'ecstasy' tablets, which are assumed to contain 100 mg of active ingredient. Moreover, one litre of liquid is assumed to correspond to one kilogram.

8 A recent forensic analysis of some 9,400 Captagon tablets seized in Iraq in the border region with Jordan, Saudi Arabia and the Syrian Arab Republic in 2009 revealed that the tablets had a weight between 163 and 170 mg and contained between 7 and 20 mg of amphetamine (in addition to 30-65 mg of caffeine and 8-39 mg of theophylline). (UNODC, Global Smart Update, Volume 2, October 2009, p. 8.) Taking the mid-points, there would be a factor of 12 between reporting the amphetamine contained in a tablet and the whole weight of the tablet.
Annual seizures of amphetamine in Saudi Arabia rose steadily over the 2000-2007 period, reaching 13.9 mt\(^9\) in 2007.\(^ {10}\) Saudi Arabia reported amphetamine seizures of 12.8 mt in 2008. The total for the Near and Middle East/South-West Asia amounted to 14.8 mt in 2007 and 15.3 mt in 2008. Reports from Lebanon,\(^ {11}\) Turkey, the United Arab Emirates and Yemen identified Saudi Arabia as a major destination for amphetamine (or specifically Captagon) trafficked on their territory in 2008, while Gulf States generally were destinations mentioned by the Syrian Arab Republic and Jordan. Large quantities of tablets believed to contain amphetamine were seized by Jordan (14.1 million tablets in 2008, up from

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\(^9\) Data for Saudi Arabia relative to the period 2002-2007 were sourced from the World Customs Organization and ICPO/Interpol.

\(^{10}\) These quantities likely represent the bulk weight of seizures, including binders and adulterants present in Captagon tablets, and should therefore be interpreted with caution. Nevertheless, these remain extraordinarily large seizures and denote a clear long-term increasing trend.

\(^{11}\) Country report by Lebanon to the forty-third Subcommission on Illicit Drug Traffic and Related Matters in the Near and Middle East.
2. Drug statistics and trends Amphetamine-type stimulants

Amphetamine-type stimulants have been seized in various countries, including in the Middle East. In 2007, Yemen seized 13.4 million tablets of amphetamine-type stimulants, and the Syrian Arab Republic seized 12.0 million tablets.

Amphetamine-type stimulants seized in Europe amounted to 8.37 million, sustaining the record level of 2007 (8.70 million). A notable increase was registered in the United Kingdom: the total for England, Wales and Northern Ireland rose by 65%, from 1.78 million in 2007/2008 to 2.94 million in 2008/2009. Seizures also rose in Germany, from 810 kg in 2007 to 1.28 million in 2008. These increases were offset by a decline in seizures in the Netherlands, which dropped to 1.16 million in 2008 (from 2.81 million in 2007). Significant quantities were also seized by Belgium (411 kg), Sweden (362 kg), Poland (342 kg), Norway (260 kg), Bulgaria (187 kg) and Turkey (163 kg).

Mexico, historically linked with significant manufacture of amphetamine-type stimulants, reported 251 kg of amphetamine-type stimulants in 2008 – nine times the level in 2007 (27.1 kg).

Methamphetamine

Global methamphetamine seizures remained stable for the fourth year in a row, amounting to 18.2 million in 2007 and 19.3 million in 2008. East and South-East Asia (notably China) and North America (notably the United States) continued to account for the vast majority of methamphetamine seizures.

In 2008, total methamphetamine seizures in East and South-East Asia remained stable (10.7 million). In China, seizures amounted to 6.09 million in 2007 (the largest worldwide for that year) and 6.15 million in 2008. According to Chinese authorities, large amounts of amphetamine-type stimulants entered Yunnan province through the border with Myanmar. Seizures of amphetamine-type stimulants from Europe and South America also increased. China reported 460 arrests of foreign nationals for trafficking of amphetamine-type stimulants in 2007; of these, 397 involved nationals of Myanmar.

Seizures in Thailand rose to 1.98 million in 2008, returning to a level comparable to that registered in 2004 (2.12 million). The World Customs Organization reported that in 2008, Thailand was the most frequent destination country in the Asia-Pacific region among methamphetamine seizure cases recorded in the Customs Enforcement Network database. In particular, 157 seizures were made on the route from the Lao People’s Democratic Republic to Thailand.

Significant increases in methamphetamine seizures were also registered by the Philippines and Malaysia. The Philippines also reported 10 clandestine laboratories manufacturing methamphetamine in 2008, and a concurrent increase in the price of methamphetamine hydrochloride.

North America accounted for total methamphetamine seizures of 8.08 million in 2008. Seizures in the United States rose markedly, from 4.89 million in 2007 to 7.37 million in 2008 (the largest worldwide for that year). The increase was offset by the portion of the North American total seized by Canada, which reported extraordinarily large seizures in 2007 (1.54 million) but only 360 kg in

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12 The total for the United Kingdom was not available. UNODC estimates total seizures of amphetamine in the UK at 3.55 million.


14 World Customs Organization Regional Intelligence Liaison Office for Asia and the Pacific, Analysis Report 2009.1.
Map 29: Seizures of amphetamines-group substances, 2008 (countries reporting seizures* of more than 10 kg)

Seizures in 2008
Volume in metric tons
Trend 2007-2008

- Increase (>10%)
- Stable (+/- 10%)
- Decrease (>10%)

Amphetamine group seizures reported to UNODC (2004-2008)
No amphetamine group seizures reported to UNODC (2004-2008)

* Seizures as reported (no adjustments made for purity); units converted into weight equivalents (300mg per unit)
Source: UNODC Annual Reports Questionnaires data supplemented by other sources
In Mexico, seizures fell from 920 kg in 2007 to 341 kg in 2008 – the lowest level since 1998.

According to the United States Department of Justice, available data indicated that methamphetamine availability in the United States was directly related to methamphetamine manufacture trends in Mexico. Following declines in domestic methamphetamine manufacture registered after 2004 in the United States — which also impacted on the domestic availability of this substance — methamphetamine seizures on the south-west border of the country rose significantly between 2008 and 2009. Moreover, price and purity data from the US Drug Enforcement Agency indicated an increase in the availability of methamphetamine in the United States. Between the fourth quarter of 2007 and the third quarter of 2009, the average purity of methamphetamine followed a generally increasing trend, rising from 41% to 69%, while the price per pure gram followed a generally decreasing trend, from US$279 to US$127. However, the increased availability of methamphetamine in the United States does not appear to have led to increased use of this drug.

Although global methamphetamine seizure totals have remained stable, seizure data point to illicit trade in methamphetamine in countries which have traditionally not been linked with this drug. Starting in 2005, the Islamic Republic of Iran has seized increasing quantities of methamphetamine. The country's combined seizures of amphetamine and methamphetamine amounted to 1.47 mt in 2008 and 2.43 mt in 2009. The results of research undertaken in the Islamic Republic of Iran, as reported by its Drug Control Headquarters, indicate that the use of methamphetamine has increased. In Afghanistan, the first confirmed seizure of methamphetamine was made in January 2009, in the city of Lashkar Gah (Hilmand province), although a survey undertaken in 2009 indicates a very low level of ATS use. In Europe, while seizures of ATS continue to consist predominantly of amphetamine and ‘ecstasy’, seizures of methamphetamine have also increased in a number of countries, notably the Nordic countries.

‘Ecstasy’

Global seizures of 'ecstasy' fell from a record level of 7.94 mt in 2007 to 3.86 mt in 2008, the lowest level since 1999. The low level was partly due to significantly reduced seizures in the Netherlands and Australia. On the other hand, seizures increased markedly in the United States. North America, Europe and East and South-East Asia collectively accounted for 98% of global ‘ecstasy’ seizures in 2008.

Over the period 2004-2008, seizures of 'ecstasy'-type substances in the United States followed a generally
Map 30: Seizures of ecstasy, 2008 (countries reporting seizures* of more than 10 kg)

Seizures in 2008
Volume in kilograms
Trend 2007-2008

- Increase (>10%)
- Stable (+/- 10%)
- Decrease (>10%)

Ecstasy seizures reported to UNODC (2004-2008)
No ecstasy seizures reported to UNODC (2004-2008)

* Seizures as reported (no adjustments made for purity); units converted into weight equivalents (100 mg per unit)
Source: UNODC Annual Reports Questionnaires data supplemented by other sources
Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.
increasing trend. This came after declines between 2000 and 2003 (in line with reports of reduced availability and reduced trafficking of ‘ecstasy’ from the Netherlands to the United States). In 2008, seizures almost doubled to reach a record level, rising from 1 mt in 2007 to nearly 2 mt. According to the United States Department of Justice,19 the resurgence of MDMA availability in the United States was fuelled by manufacture in Canada and smuggling into the US across the northern border. MDMA seizures at the northern border (measured in dosage units) more than doubled between 2008 and 2009. However, availability appeared to be stabilizing.

In Europe, seizures of ‘ecstasy’ fell sharply, from 3.07 mt in 2007 to 1.01 mt in 2008. The drop was mainly due to smaller seizures reported by the Netherlands, which fell from 2.16 mt to 409 kg. Seizures of ‘ecstasy’ tablets in particular by the Netherlands fell from 8.43 million tablets in 2007 to 249,000 tablets in 2008. A downward trend in ‘ecstasy’ seizures was observed across West and Central Europe: of 31 countries and territories for which UNODC had collated seizures of ‘ecstasy’ in 2007, 26 registered a decrease in 2008. There are indications that improved precursor controls may have made access to the needed chemicals more difficult, thus reducing manufacture and trafficking of MDMA.

Australian ‘ecstasy’ seizures fell drastically, from the record level of 2007 (1.97 mt) to 51.4 kg in 2008. The figure for 2007 includes a single extraordinarily large seizure of approximately 15 million tablets.20 However, the level in 2008 is low also in comparison with previous years. Over the period 2003-2006, ‘ecstasy’ seizures in Australia averaged 1.10 mt. Seizures also fell in East and South-East Asia, from 740 kg in 2007 to 306 kg in 2008.

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20 This was reported by the Australian Crime Commission in *Illicit Drug Data Report 2006-07: Revised Edition*. This seizure, which was part of a year-long controlled delivery operation, was also confirmed separately to UNODC by the Australian Federal Police. In the reply to the annual reports questionnaire for 2007, Australia reported seizures amounting to 470 kg.
2.5.3 Consumption

Amphetamine-type stimulants (ATS) are various synthetic substances broadly categorized into amphetamines-group substances—primarily amphetamine, methamphetamine and methcathinone—and ecstasy-group substances (MDMA and its analogues). In many regions the primary source of amphetamine-group substances is via illicit manufacture in clandestine laboratories while in other regions they are prescription pharmaceutical stimulants obtained via the grey or black markets, used non-medically.

UNODC estimates that between 13.7 and 52.9 million people used amphetamine-group substances at least once in the preceding year, with a corresponding annual prevalence range of 0.3% to 1.2% of the population aged 15 to 64. The width of the ranges for amphetamines-group substances - much more than for heroin or cocaine - has further widened since last year (15.8 - 50.6 million). This reflects a higher number of estimated users in and new availability of data on ATS in the Caribbean countries, and an increased level of uncertainty for the estimates produced for Asia, which is thought to be one of the main markets for ATS. The estimates for Asia range from 4.4 to 37.9 million users, reflecting the uncertainties regarding the use of amphetamine-group substances in the region, especially with the lack of recent or reliable estimates in countries with large populations like China and India.

The number of ‘ecstasy’-group users ranges between 10.5 and 25.8 million people worldwide, or 0.2% to 0.6% of the population in the 15-64 age group. This range widened from 2007 (11.6-23.5 million). The speed with which ATS markets are appearing or expand-

<table>
<thead>
<tr>
<th>Region/ subregion (Amphetamines-group)</th>
<th>Estimated number of users annually (lower)</th>
<th>Estimated number of users annually (upper)</th>
<th>Percent of population aged 15-64 (lower)</th>
<th>Percent of population aged 15-64 (upper)</th>
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<tbody>
<tr>
<td><strong>Africa</strong></td>
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<td>East Africa</td>
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<td>West and Central Africa</td>
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<td>1.0 - 1.1</td>
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<td>0.2 - 1.4</td>
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<td>Near and Middle East South Asia</td>
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</table>
Amphetamine-type stimulants

The general confusion on what constitutes ATS and the limited reporting and/or absence of reporting all contribute to the limited data availability worldwide.

The type of amphetamines-group stimulants used in different regions varies considerably. Users in East and South-East Asia primarily consume methamphetamine, while in the Near and Middle East, the use of tablets sold as Captagon is more common. In Europe, users commonly consume amphetamine, with the exception of the Czech Republic and Slovakia, where methamphetamine use is predominant.

In North America, nearly half of the synthetic stimulant users consume methamphetamine, while in South America and the Caribbean it is mostly pharmaceutical stimulants. In West, Central and East Africa and some parts of Southern Africa, the amphetamine groups may also comprise various pharmaceuticals. In South Africa, methamphetamine and methcathinone are the common amphetamine-group substances consumed. In Oceania, methamphetamine is the common synthetic stimulant consumed, though there is also use of amphetamine.
In 2008, 82 Member States responding to the ARQ provided an expert perception on trends in amphetamines use. Out of these, half perceived amphetamines use to be stable, while 33% thought it had increased and 17% reported a decline. More experts from developing countries (non-OECD) reported a perceived increase in amphetamine-type stimulants use than experts from developed countries (OECD).

Uncertainties in estimates of amphetamines-group stimulants use in Asia is highest, though experts in East and South-East Asia report increasing use.

In Asia, between 0.2% and 1.4% of the population aged 15-64 - or between 4.4 and 37.9 million people - are estimated to have used amphetamines-group substances in the past year. The wide range and uncertainty in the estimates stem from missing information on users from China and India. Chinese authorities have reported recent increases in the use of amphetamines-group stimulants, particularly methamphetamine, but the baseline is not known. Also, due to missing data, subregional estimates for Central Asia, the Near and Middle East and South Asia cannot be calculated. New data for 2008 was available only for three countries/territories in Asia: Hong Kong (China), where the use of amphetamine-type stimulants has largely remained unchanged, Indonesia, which reported a decrease from 0.3% in 2005 to 0.2% in 2008, and Afghanistan, where a new survey found negligible use of ATS in 2009.

21 2008 ARQ submitted by China.
Out of the 29 Member States in Asia that responded to the 2008 ARQ and provided expert perception on ATS use, 13 countries reported some increase in ATS use, while eight reported a stable trend over the past year. Most of the countries that have reported an increase in amphetamines-group substance use over the last year are from East and South-East Asia, particularly Bangladesh, China (including Hong Kong), Indonesia, Japan, Mongolia, Myanmar, Thailand and Viet Nam.

Recent data from the Philippines (2.1%, 2008), Thailand (1.4%, 2007) and the Lao People’s Democratic Republic (1.4%, 2008)22 place them as the countries with the highest annual prevalence of amphetamines-group substance use in East and South-East Asia.23

**Mixed trends of amphetamines-group substance use observed in Europe**

In Europe, between 2.5 and 3.2 million people aged 15-64 had used amphetamines-group substances at least once in the past year, and the annual prevalence is estimated at between 0.5% to 0.6% of the population aged 15-64. The range is higher than the one reported last year due to increases observed in countries where new data for 2008 were reported (not offset by the decreasing trends also observed in some countries). Relatively high prevalence rates in the general population were also reported for South-East European countries where for the first time data on ATS use was made available: Bosnia and Herzegovina (1%), Montenegro (0.5%) and Serbia (0.2%).24 Bulgaria revised its estimate from 0.5 to 1%. The Czech Republic, Denmark, the United Kingdom, Norway and Estonia remain countries with higher than average annual prevalence of amphetamine-groups substance use while France, Greece, Romania and Malta remain low prevalence countries. After the general increase in the 1990s, in 2007, there were stabilizing or even downward trends in amphetamine consumption in Europe.25 However, new data for 2008 suggest that the trend is increasing again in some countries.

According to European school survey26 data for 2007, the lifetime prevalence of amphetamine use ranged from 1% to 8% in EU Member States, Norway and Croatia, with high levels reported from Bulgaria and Latvia (both 6%).

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22 UNODC estimate.
23 Estimates for the Philippines and the Lao People’s Democratic Republic are for 2008, while for Thailand, they are for 2007.
24 UNODC estimate extrapolated from school surveys.
26 European School Survey Project on Alcohol and Other Drugs (ESPAD).
While the treatment demand for amphetamine-group substances is generally low in Europe, it is particularly high (64% of all treatments in 2008) in the Czech Republic. This reflects the country’s high prevalence of methamphetamine use (1.7% among the general population in 2008), the highest in Europe. In Slovakia, the percentage of treatment admissions for methamphetamine is also high (32%), suggesting that despite the relatively low prevalence of methamphetamine use reported in 2006 (0.3% of the population aged 15-64), problem drug use related to it is sizable. In these two countries, injection is the most commonly reported route of administration for methamphetamine.27

In South Africa, amphetamine-group substances use is increasing, while there is little information from most other parts of the African region.

In Africa, between 1.5 and 5.2 million people are estimated to have used amphetamine-group substances in the past year, an increase from the 1.4 - 4 million people estimated for 2007. The wide range in the estimates is due to the lack of recent or reliable estimates in West, Central and East Africa. Recent annual prevalence estimates in Africa are available from South Africa (0.7%-1.4%, 2008), Egypt (0.4%-0.5%, 2006) and Zambia (0.1%, 2003). The higher range level in 2008 is mainly due to an increase observed in South Africa, where the annual prevalence increased from a range of 0.5%-0.8% in 2006 to 0.7%-1.4% in 2008. Within South Africa, the use of methamphetamine remains particularly high in Cape Town, where methamphetamine remained the

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most common primary drug reported by treatment patients in the first half of 2009. 28

Decreasing trends in North America

Amphetamine-group substance use remains high in North America, though recent survey data suggest a decline in the use of amphetamines. The annual prevalence of all stimulants use in the United States among the population aged 12 years and older was reported as 1.1% in 2008; a further decline from 1.2% in 2007 and 1.5% in 2006. 29

A decrease in the annual prevalence of methamphetamine use was also observed among young adults aged 18-25, from 0.6% in 2002 to 0.2% in 2008. 30 While methamphetamine use in the general US workforce also dropped from 0.14% in 2007 to 0.11% in 2008, the proportion of positive urine test for amphetamine increased from 0.40% to 0.45% in the same period. 31

30 Ibid.
31 Quest Diagnostics, Drug Testing Index, May 2009.
In contrast to the United States, Canada registered an increase in amphetamine-group substance use between 2004 and 2008. In Canada, the annual prevalence of amphetamines-group stimulants use was reported in 2008 as 1.5% among the population aged 15-64, compared to 1% in 2004. The current prevalence of amphetamine-group substances use is substantially higher than that reported for opioid pain relievers. In the Canadian Alcohol Drug Use Monitoring Survey, one in four drug users reported the use of stimulants to ‘get high’.32

Experts in Mexico perceive an increase in amphetamine use. The annual prevalence of amphetamine use was estimated at 0.16% of the population aged 12-65 in 2008. The annual prevalence of amphetamine and methamphetamine use among 12-19 year olds was reported as 1% and 0.4%, respectively.

Mixed trends for amphetamines-group substance use in South America and Caribbean

Experts in many countries in South America, in particular Ecuador, El Salvador and Paraguay, report an increase in methamphetamine use over the past year. In 2008, there were an estimated 1.3 to 1.8 million people (annual prevalence 0.5%-0.7%) who had used amphetamine-group substances in the region. In 2008, new information was made available to UNODC from several Caribbean countries. The annual prevalence of amphetamine-group substance use in this region ranges from 0.1% to 1.9% of the population aged 15-64 (between 30,000 and 500,000 people). The wide range is mainly due to uncertainties arising from absence of reliable estimates in the region and the wide range of estimates observed in the countries where data on annual prevalence could be estimated.33 In Central and South America, new information for 2008 show a minor increase in Suriname (from 0.6% to 0.7% of the annual prevalence of people aged 12-65) and a stabilization in Colombia and Chile where the annual prevalence remained at 0.5% and 0.4%, respectively. Panama revised its estimate for the annual prevalence of ATS use among its adult population for 2003 (latest year available) from 0.6% to 1.2%.

Problem methamphetamine use high in Oceania, though improving

The prevalence of amphetamines use in New Zealand (2.1% among the population aged 16-64) in 2008 and Australia (2.7% among the population aged 15-64) in 2007 remains one of the highest in the world, though there are signs of a declining trend in recent years. In some of the US territories in the Pacific there are reports of high methamphetamine use among young people where the lifetime prevalence ranged from 13.1% in the Marshall Islands to 5.9% in Guam and 4.9% in Commonwealth of the Northern Mariana Islands (CNMI).34

Amphetamine-group substances also remain one of the main problem drugs in New Zealand and Australia. In the two countries, the Drug Use Monitoring in Australia (DUMA) and the New Zealand Arrestee Drug Abuse

33 A series of school surveys were recently undertaken in selected Caribbean countries. Based on the results of these surveys, the annual prevalence among the adult population could be estimated.
Monitoring (NZ-ADAM) programmes measure drug and alcohol use among people who have recently been detained by police. In 2008, 21% of detainees across Australia had tested positive for methamphetamine – although this shows a decline from the previous year (27% in 2007) and the lowest positive test rate for methamphetamine since 1999. Similarly in New Zealand, among the police detainees who were tested for drugs, methamphetamine and amphetamine were the second and third most commonly detected drugs (10% and 9%, respectively). In Australia, the most commonly injected substances were also amphetamines-group substances, where 67% of the injecting drug users interviewed had injected some form of methamphetamine in the preceding six months.

‘Ecstasy’-group consumption

Globally, between 10.5 and 25.8 million people were estimated to have used ‘ecstasy’ group substances (primarily MDMA and its analogues) in the previous year. This range compares with a range of 11.6 - 23.5 million reported for 2007. The highest prevalence of ‘ecstasy’ use remains in Oceania (3.6%-4%) while in absolute terms, Europe had the highest number of users in 2008, with some 3.9 - 4.1 million people aged 15-64 estimated to have used ‘ecstasy’ at least once in the previous year. For most parts of Asia as well as Africa, information on ‘ecstasy’ use is missing, which introduces a high level of uncertainty in the global estimates.

Many countries in Asia report an increase in ‘ecstasy’ use

In 2008, 56 Member States provided information on experts’ perception on trends in ‘ecstasy’ use. Experts in half of these countries thought that ‘ecstasy’ use had been stable in 2008, while one third considered that it had increased. Most of the countries/territories reporting an increase were in Asia – in particular Bangladesh, China including Macao, Indonesia, Mongolia, Pakistan and Viet Nam. New estimates provided by Indonesia on the annual prevalence of ‘ecstasy’ use among the population aged 15-64, however, showed a slight decrease from 0.3% in 2005 to 0.2% in 2008.

Mixed trends for ‘ecstasy’ use reported in Europe

In Europe the annual prevalence of ‘ecstasy’ use is estimated at 0.7% of the population aged 15-64. A higher prevalence rate as well as a higher total number of ‘ecstasy’ users are reported from West and Central Europe as compared to East and South-East Europe. The high prevalence countries remain the Czech Republic, Slovakia, Estonia, the United Kingdom and Latvia, while Romania, Greece and Poland have negligible or quite low ‘ecstasy’ use. In those countries where data on annual prevalence in the adult population was available for 2008, the picture is mixed. Some registered an increase (the Czech Republic, Denmark, England and Wales, the former Yugoslav Republic of Macedonia and Slovakia) and others a decrease (Estonia, Lithuania and Scotland).
Compared to methamphetamine and amphetamine, use of ‘ecstasy’ is much more common among young adults aged 15-34 (national estimates ranging between 0.1% – 3.1% of past year amphetamine prevalence, compared to 0.2% – 7.7% for ‘ecstasy’ use). Most of the countries, though, have reported a decreasing or stabilizing trend of ‘ecstasy’ use among young adults.39

The school survey conducted under the European School Survey Project on Alcohol and Other Drugs (ESPAD) and other school surveys conducted in 2007 suggest, overall, little change in the levels of ‘ecstasy’ use among students aged 15 to 16. Compared to 2003, overall increases in ‘ecstasy’ use was observed in 12 countries, with Latvia, Bulgaria, Slovakia, Denmark, Hungary and Malta showing marked increases over this period. The Czech Republic, Portugal and Croatia reported substantial decreases, while ‘ecstasy’ use remained stable in the remaining countries.40

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40 Hibel B., Adersson B., Bjarnason T., Ahlstrom S., Balakireva O.,
Drug statistics and trends

Amphetamine-type stimulants

'Ecstasy' use declined in North America after 2001, but there are early signs that it may recover.

In the United States, after a decline in the annual prevalence of 'ecstasy' use from 1.3% in 2002 to 0.9% in 2003 among the population aged 12 and older, the trends have remained stable over the past five years.

However, there are signs of a possible resurgence. The annual prevalence of 'ecstasy' use among 10th grade students in the United States fell from 6.2% in 2001 to 2.4% in 2004, and has been increasing since then. The annual prevalence among 8th and 12th grade students, though, remains stable. It is considered that diminishing perceived risks and disapproval among the students in US may cause a rebound in ecstasy use. In Canada, the annual prevalence of 'ecstasy' use has increased from 1.3% in 2004 to 1.7% in 2008.

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National Institute on Drug Abuse *Monitoring the Future, Overview of Key Findings 2008* (Bethesda, Maryland, USA, 2009).

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### Table 30: National experts’ perception of trends in 'ecstasy' use by region, 2008

<table>
<thead>
<tr>
<th>Region</th>
<th>Member States providing perception data</th>
<th>Member States perception response rate</th>
<th>Use problem increased*</th>
<th>Percent use problem increased</th>
<th>Use problem stable</th>
<th>Percent use problem stable</th>
<th>Use problem decreased*</th>
<th>Percent use problem decreased</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>4</td>
<td>8%</td>
<td>1</td>
<td>25%</td>
<td>3</td>
<td>75%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Americas</td>
<td>12</td>
<td>34%</td>
<td>1</td>
<td>8%</td>
<td>11</td>
<td>92%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Asia</td>
<td>15</td>
<td>33%</td>
<td>8</td>
<td>53%</td>
<td>4</td>
<td>27%</td>
<td>3</td>
<td>20%</td>
</tr>
<tr>
<td>Europe</td>
<td>24</td>
<td>53%</td>
<td>7</td>
<td>29%</td>
<td>12</td>
<td>50%</td>
<td>5</td>
<td>21%</td>
</tr>
<tr>
<td>Oceania</td>
<td>1</td>
<td>7%</td>
<td>1</td>
<td>0%</td>
<td></td>
<td></td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Global</td>
<td>56</td>
<td>29%</td>
<td>18</td>
<td>32%</td>
<td>30</td>
<td>54%</td>
<td>8</td>
<td>14%</td>
</tr>
</tbody>
</table>

* Identifies increases/decreases ranging from either some to strong, unweighted by population.

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### Fig. 215: Trends in annual prevalence of 'ecstasy’ use among young adults (aged 15-34)

Source: EMCDDA, *Annual report 2008: the state of the drug problems in Europe, Lisbon 2008*

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### Fig. 216: European countries with an increase in 'ecstasy’ use among students aged 15-16

Source: ESPAD
Stabilizing trends of ‘ecstasy’ use in South America

Experts from most countries in South America reported a stable trend in the use of ‘ecstasy’ in their countries. New data from Colombia show an increase in the adult prevalence rate of ‘ecstasy’ use (from 0.2% estimated in 2005 to 0.3% estimated in 2008). Estimates for the Bolivarian Republic of Venezuela for 2005 were also revised downward (from 0.2% in 2001 to less than 0.01% in 2005). The annual prevalence in the region remains low compared to North America or Europe.

‘Ecstasy’ use still high in Oceania, but the quality of ‘ecstasy’ may vary

The Oceania region reportedly has one of the highest annual prevalence rates of ‘ecstasy’ use, ranging between 3.6% and 4% of the population aged 15-64. Both Australia and New Zealand have reported high levels of ‘ecstasy’ use, but the annual prevalence remained unchanged from the previous years (4.2% and 2.6%, respectively). In New Zealand, the extent to which the ‘ecstasy’ sold in the country contains substances other than MDMA, such as benzylpiperazine (BZP) or ketamine remains unclear.42

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2. Drug statistics and trends

Amphetamine-type stimulants

Map 36: Use of ecstasy in 2008 (or latest year available)

Level of use (annual prevalence) in % of population aged 15-64
- >1
- 0.6 - 1.0
- 0.4 - 0.5
- 0.2 - 0.3
- <0.1
- Data not available

Source: UNODC-WHO (2010), Government reports, US Department of State e-publ. and various agencies

Map 37: Expert perception of trend changes in the use of ecstasy, 2008 (or latest year available back to 2005)

Levels of change:
- Large Increase
- Some Increase
- Stable
- Some decrease
- Large decrease
- No data provided

UNODC (2010)

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