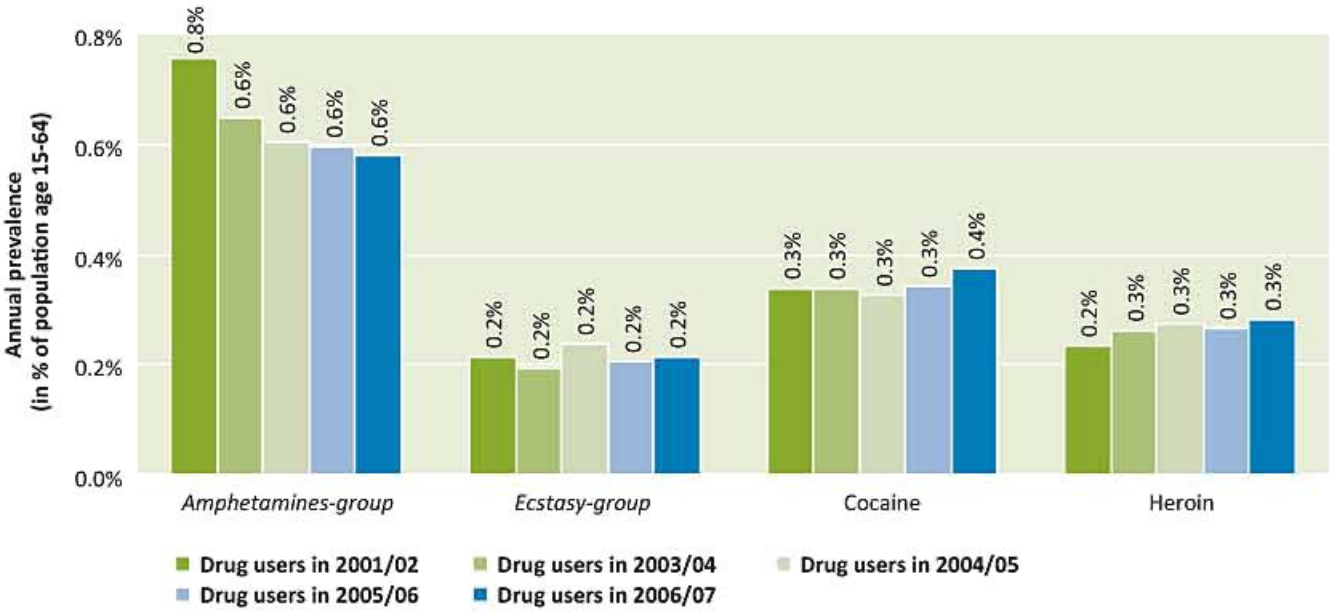
EXECUTIVE SUMMARY

Amphetamine-type stimulants (ATS) are firmly established on global illicit drug markets with use continuing to exceed that of heroin and cocaine combined. Although the number of those who have used ATS at least once in the last 12 months has stabilized at around 34 million worldwide, increases have occurred in parts of the world that previously had only very small ATS-related problems. Successes in mature markets, mostly in developed countries, appear to have been offset, and perhaps have obscured for some time, the changes in markets in the developing world.

Extent of illicit drug use, by drug type* 2001/02-2006/07



* Excluding cannabis

Source: UNODC estimates; government reports; EMCDDA; CICAD; local studies

The widespread use of ATS is a result of their attractiveness to users: they seem to appeal to the needs of today's societies and have become part of what is perceived to be a modern and dynamic lifestyle; in some segments of society, they continue to be used frequently for occupational purposes. The popularity of ATS is also a result of a market potential with continuously high profits and low risks that maintains its attractiveness to criminal groups around the world.

While none of these aspects are new and, in fact, the evolution of the ATS problem in any one region or subregion often follows a distinct pattern, there have been a number of significant developments over the past five years, since UNODC last reviewed the nature and extent of the ATS problem, published in *Ecstasy and Amphetamines - Global Survey 2003*.[1]

1 Accessible at: http://www.unodc.org/pdf/publications/report_ats_2003-09-23_1.pdf

Intrinsic characteristics of ATS contributing to their attractiveness vis-à-vis the traditional plant-based drugs heroin and cocaine:

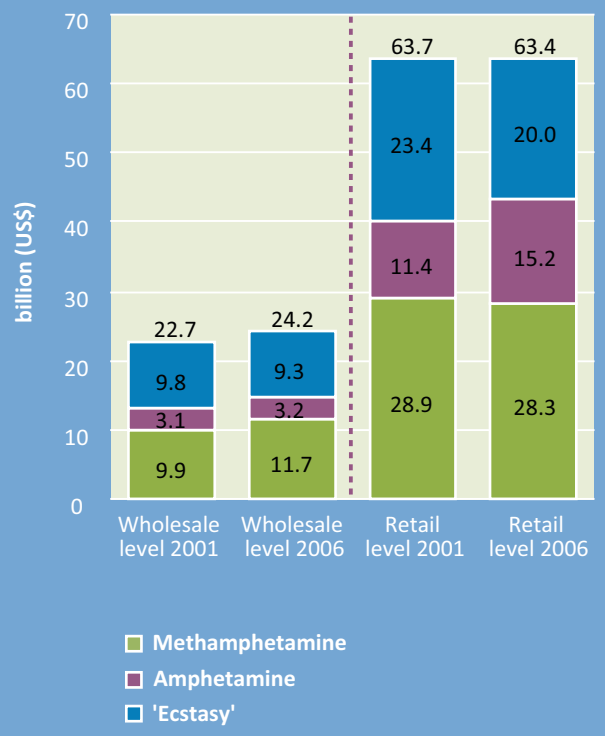
On the demand side

- ATS are attractive because they are perceived as enhancing performance and communication and have come to embody a modern and fashionable lifestyle (the extent to which ATS are used for occupational or recreational purposes depends on the specific substance);
- ATS can be taken by mouth. In addition to being 'convenient' for the user, the use of pills also avoids injection or smoking and the dangers of social stigma associated with these administration routes;
- ATS are affordable (available on retail markets in single pill units);
- The recreational use of ATS is generally perceived as being little harmful, and controllable; public health risks of ATS are frequently underestimated in public perception, as well as in the judicial and enforcement areas;

On the supply side

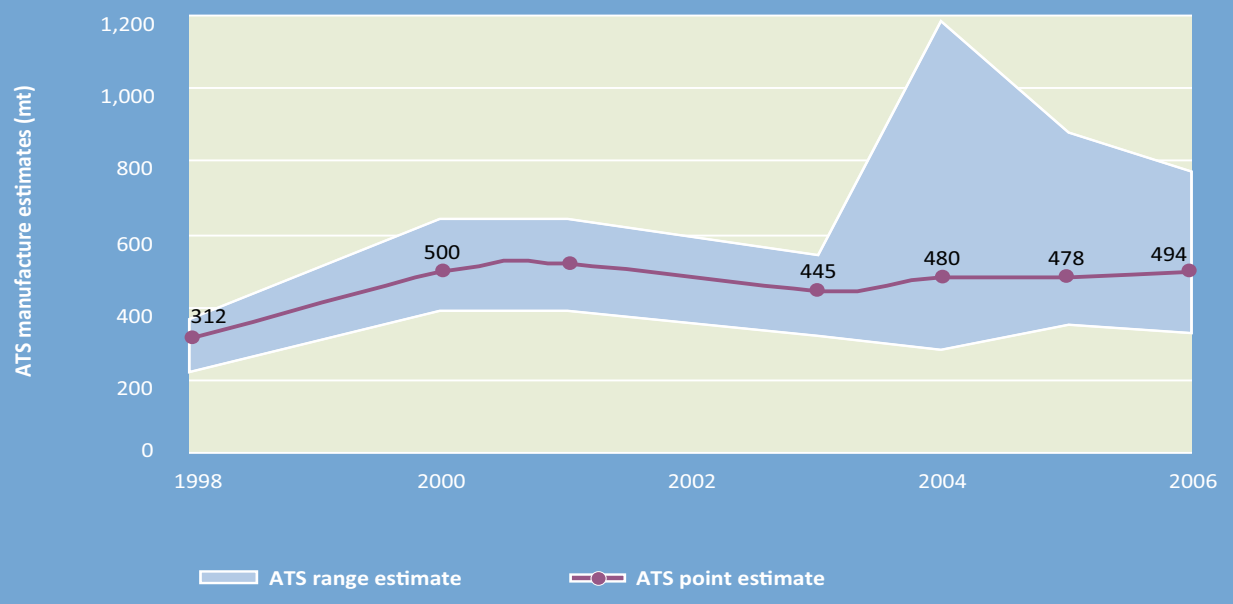
- ATS are attractive because of high profits: with little initial investment, hugely profitable quantities of drugs can be manufactured;
- ATS can be made readily from a variety of starting materials (precursors) using a variety of synthesis methods. When a traditional precursor becomes unavailable, the desired precursor may itself be synthesized from a pre-precursor chemical;
- ATS manufacture is not limited to certain geographic locations. It can take place anywhere, easily camouflaged, and be relocated as enforcement pressure increases (e.g. makeshift laboratories set up to supply a single order and then dismantled to prevent detection);
- Because there are no geographical limitations, ATS laboratories can be located close to the areas of consumption, thus minimizing the risk of detection when trafficking end-products across international borders;
- Awareness of ATS end-products and/or their precursors is still limited in some parts of the world where other drugs are prevailing, thus minimizing the risk for illicit operators and trafficking groups;
- For operators of small-scale 'kitchen' laboratories (typically methamphetamine laboratories), ATS are attractive because manufacture does not require advanced knowledge of chemistry and can be accomplished by anyone from readily available chemicals.

Estimates of the value of the ATS market at the wholesale and the retail level (in billion US$) for 2001 and for 2006



Source: UNODC, *Ecstasy and Amphetamines - Global Survey 2003*; UNODC, *World Drug Report 2008;* UNODC ARQ/ DELTA

Point-estimates and ranges* of ATS manufacture 1998-2006



* Details of the methodology can be found in the annual *World Drug Report*.

Source: UNODC ARQ/ DELTA; UNODC, *Ecstasy and Amphetamines - Global Survey 2003*

The developments since 2001 include:

- ATS use is stabilizing in developed countries, increasing in developing countries.
- Regional shifts and rapid spread to new markets. Supply-driven increases in the Near and Middle East; demand-driven increase in 'ecstasy' manufacture close to consumer markets in North America; North America and East and South-East Asia emerging as sources of ATS for international markets; West Europe remains the major source of 'ecstasy' trafficked internationally, although its importance is declining; indications for growth in South America and Africa.
- Continuously high profits. The global ATS market value remains unchanged at about US$65 billion; the mark-up between wholesale and retail prices can be as high as 400%.
- Increased involvement of organized crime. Transnational organized crime groups are increasingly forging partnerships internationally and with domestic crime groups, resulting in more sophistication in manufacturing and trafficking operations including the sourcing of precursors (e.g. Asian-sourced precursors, West African and Asian traffickers, and West European and North American chemists).
- Increases in size and sophistication of clandestine operations. The past five years saw the emergence of some of the biggest clandestine ATS laboratories ever detected. Successes in precursor controls resulted in changes in illicit manufacturing methods (using substitute chemicals or forms not currently under international control), in the precursor sources (pharmaceutical preparations instead of bulk precursors), and in precursor trafficking patterns to countries and regions that lack the infrastructure to counter this trend (examples of new precursor trafficking routes through Africa, Central America, the Near and Middle East, and West Asia).
- Diversification of ATS products. In several parts of the world, ATS tablets contain an increasing variety of substances both controlled and non-controlled. New forms of existing drugs (e.g. crystalline methamphetamine) are appearing in markets where they had not been seen before. This has implications for users and the associated interventions, and it may mask a persistent ATS problem that is no longer recognized due to no awareness of the new products.
- Vulnerability. Recent shifts in ATS markets suggest a correlation with the infrastructure and level of preparedness of a country and it being targeted by organized crime groups involved in ATS. There are also indications that many developing countries are struggling to cope with the consequences of increased ATS manufacture, trafficking and/or use, with their law enforcement, judicial, prison and health care resources being overwhelmed and unable to respond adequately.

The report provides evidence for these developments, with a special focus on subregional patterns and trends, and highlights the challenges ahead.

ATS manufacturing patterns changing

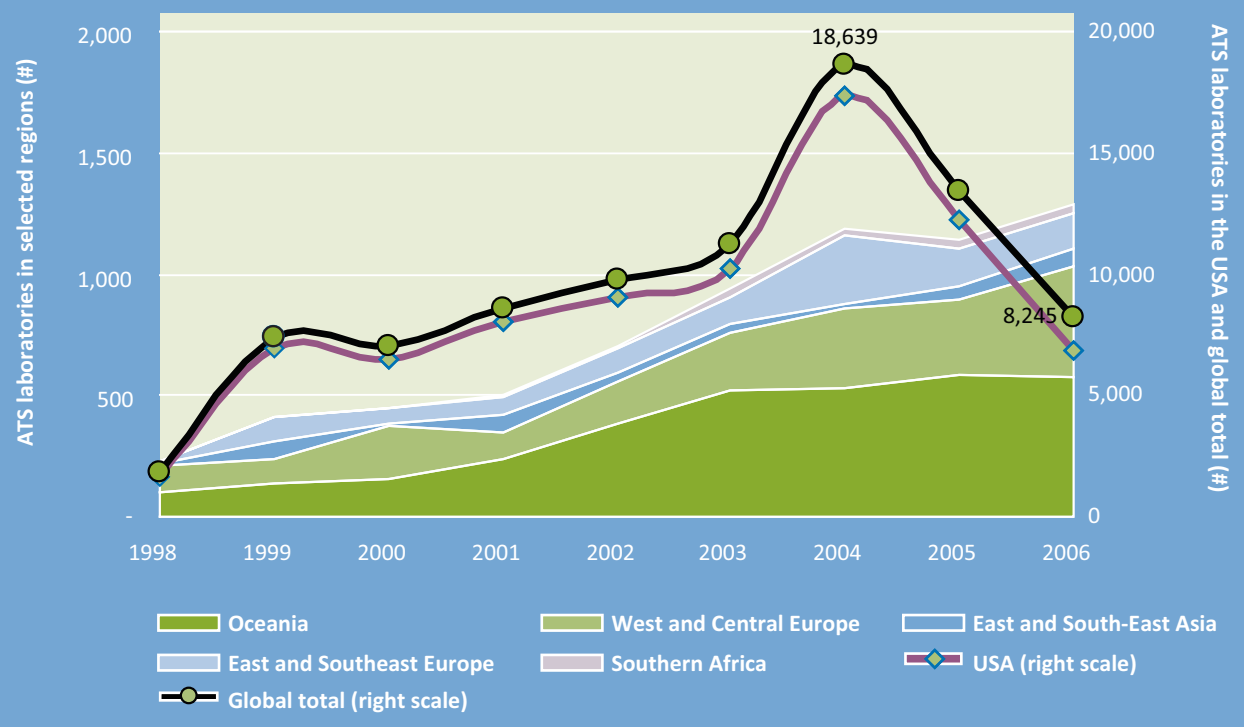
ATS are attractive to clandestine operators because there are no geographical limitations to where they can be manufactured, they have many starting materials and manufacturing methods, and they offer enormous profit margins. The ATS retail market is valued at about US$65 billion, practically unchanged from five years ago, with a mark-up between retail and wholesale value of the overall market of up to 400%.

On a global scale, ATS manufacture has stabilized at high levels since the early 2000s with estimates close to 500 mt annually. *Amphetamines-group substances* (i.e. largely amphetamine and methamphetamine) account for more than three-quarters of ATS manufactured worldwide, while the manufacture of *ecstasy-group substances* (i.e. MDMA, MDA, MDE) is significantly less widespread (around 20%). Methamphetamine continues to be the most widely manufactured ATS, although its share has declined from 62% in 2003 to 54% in 2006. Over the same period, the percentage share of amphetamine more than doubled (from 12% to 26%), mostly related to expanding markets in the Near and Middle East (notably Saudi Arabia), which are believed to be mainly sourced from South-East European laboratories, primarily in Bulgaria and Turkey.

On a global scale, after strong increases peaking in 2004, the number of clandestine laboratories[2] has declined over the last two years, mainly as a result of a significant decrease in the number of small-scale ('kitchen') methamphetamine laboratories in the USA. Effective precursor controls are believed to be responsible for this decline, successfully limiting access to the precursor chemicals required by the smaller illicit laboratory operators.

2 Includes laboratories of any size and state of operation, as well as waste dumpsites and chemical and glassware seizures ('warehouses').

ATS laboratory seizures (all sizes): world, USA and key regions outside the USA 1998-2006



Source: UNODC ARQ/ DELTA

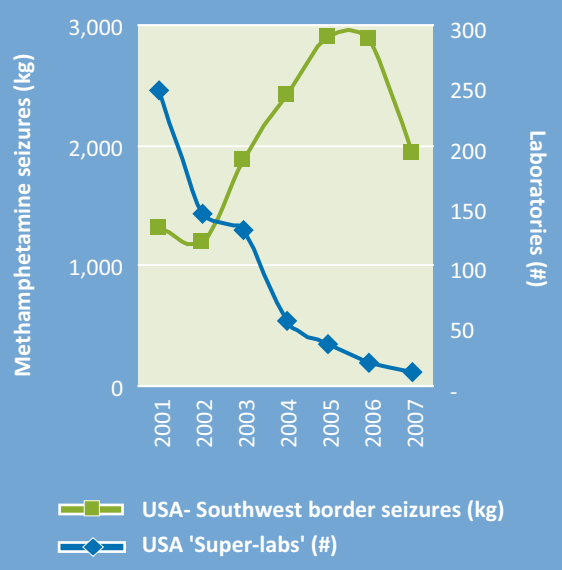
Clandestine methamphetamine/MDMA laboratory located in Cikande (west of Jakarta), Indonesia (Nov 2005)

However, the decline in the number of methamphetamine laboratories in the USA has masked trends in other subregions, many of which have seen substantial increases since 2001 both in numbers (+17% annual average growth) and size. Countries that reported significant[3] growth in ATS manufacture since 2001 included China, the Philippines, Canada, Czech Republic, Australia, New Zealand, South Africa, and most recently Indonesia, Malaysia, and Turkey.[4] Although information about capacity is not systematically available, clandestine laboratories in Canada, Mexico and in countries in southern and eastern Asia tend to be industrial-scale operations. The largest laboratories to-date have been reported from countries in East and South-East Asia, namely Indonesia and Malaysia.

In addition to the decrease in small-scale ('kitchen') laboratories in the USA, the number of industrial-scale laboratories discovered in that country has also declined dramatically from 245 in 2001 to 11 in 2007. This trend coincided with a significant increase in the quantity of methamphetamine seized along the US-Mexico border[5] where clandestine operators had relocated after the introduction of successful domestic precursor controls in the USA. Following historical patterns of subregional relocations ('ballooning') of clandestine ATS manufacture, increasing efforts in Mexico to control clandestine manufacture could result in shifts further south. There are already reports of sporadic clandestine ATS manufacture in South America, and evidence is also emerging of new patterns and a higher incidence of precursor trafficking in that region.

There are also indications of recent changes in the global 'ecstasy' market. The most significant development is the decrease in *ecstasy-group* manufacture in West Europe and the concurrent increase in subregions close to consumer markets in North America (Canada) and Oceania (Australia). A similar trend of supply following demand appears to be emerging also in South-East Asia, although to a lesser degree, with increasing 'ecstasy' laboratory seizures to supply markets in the region and possibly also in neighbouring Oceania.

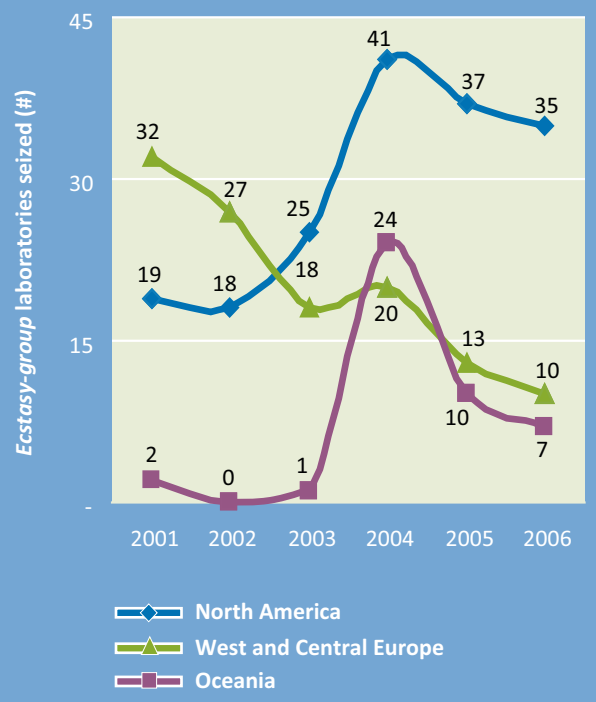
Seizures of methamphetamine laboratories* in the USA and methamphetamine seizures at the US-Mexico border 2001-2007



* Refers to what is defined in the USA as a '*super-lab*' with the capability to produce 10 lbs (4.5 kg) or more per production cycle.

Source: USA National Drug Intelligence Center, *National Methamphetamine Threat Assessment 2008*; USA Drug Enforcement Administration Office of Diversion Control

***Ecstasy-group* laboratory seizures by region 2001-2006**



Source: UNODC ARQ/ DELTA

3 Significant either in size or number of clandestine operations reported.

4 All countries encountered the manufacture of methamphetamine, except Turkey, where amphetamine manufacture has emerged since 2001. Australia, Canada and Indonesia reported the recent manufacture of both methamphetamine and 'ecstasy'.

5 Border seizures are defined as seizure at either the US-Mexico border or within 150 miles of that border inside the USA.

Clandestine ATS laboratory capacity

There is no commonly accepted definition of what constitutes a clandestine laboratory nor how to classify and report its 'size', 'capacity' or 'output'.

Clandestine ATS laboratories vary significantly in terms of size and sophistication. Simple counts of laboratory seizures can therefore only give a broad picture of the trends in clandestine ATS manufacture. Lack of detail in relation to laboratory seizure incidents is not limited to information on size but also applies to the type of facility (e.g. whether the laboratory produced ATS powder or was a tableting facility) and the distinction of whether the site was a functional laboratory, a chemical warehouse or even a dumpsite.

Classification of laboratories

A frequently made distinction between laboratories is that of size, classifying them into two general groups: "for personal use" and "with the intent to supply". Other relevant classification criteria include the sophistication of the laboratory, the level of knowledge of the chemist, and the duration during which a laboratory has been operating. Based on the above criteria, laboratories may be classified as:

(i) 'Kitchen' laboratories that use only basic equipment and simple procedures; chemical knowledge is limited or non-existent, with the operator simply following the instructions; usually there are no significant stores of precursors.

(ii) Other small-scale laboratories where the operator has advanced chemical knowledge. Such laboratories may be the ones where more complex ATS are manufactured; they may or may not be of similar size as 'kitchen' laboratories but frequently employ non-improvised equipment.

(iii) Medium- to large-scale laboratories that use commercially available standard equipment and glassware and that may operate for longer periods of time; these laboratories are not very mobile and recovery of precursor material becomes a realistic possibility in many cases (it is these types of laboratories for which production estimates are the most viable and reliable).

(iv) 'Industrial-scale' laboratories that use custom-made oversized equipment and glassware (or purchased as redundant equipment from industrial process sources). Such industrial operations produce significant amounts of ATS in very short periods of time, limited only by access to precursors, reagents and consumables in adequate quantities and the logistics and manpower to handle large amounts of drugs or chemicals and process them into the next step.

The USA Department of State uses the terms 'mega-lab' and 'super-lab' to describe large-scale industrial facilities, with a 'mega-lab' being described as having the capability to produce 1,000 kg or more per production cycle and a 'super-lab' as the capability to produce 10 lbs (4.5 kg) or more per production cycle (the term 'mega-lab' was first coined in 2005 after some of the biggest methamphetamine laboratories worldwide had been discovered in South-East Asia).

It is important to note that most laboratories do not produce continuously seven days per week and 52 weeks per year, and that cycles of daily, weekly or monthly capacities cannot simply be extrapolated.

The concept of laboratory capacity therefore needs to have emphasis on the precursor chemicals and reagents that are available reliably and/or can be replenished realistically to sustain manufacture. Estimates based on size or volume of equipment, which is sourced only once, will likely result in unrealistic (over) estimation.

Examples

Information on clandestine laboratory capacity available to UNODC (2001-2008) demonstrates the diversity of terminology applied to describe laboratory capacity and, most significantly, does not indicate the method utilized to arrive at the stated figure (i.e. size, precursors at hand, waste estimates, etc.):

Methamphetamine	
Zamboanga City, Philippines (2008):	monthly production capacity of 1 mt of crystalline methamphetamine
Klang, Malaysia (2007):	60 kg batch of crystalline methamphetamine
Poland (2007):	400 gram per day
Canada (2006):	10 kg batches ('super-lab'); 20 or more pounds per production cycle
Kulim, Malaysia (2006):	theoretical production cycle of 1.4 mt-1.7 mt of crystalline methamphetamine (laboratory did not operate at full capacity)
Semenyih, Malaysia (2004):	estimated output: 1 mt
Cikande, Indonesia (2005):	batches of 75 kg of crystalline methamphetamine
Fiji (2004):	production cycle estimates: 500-1,000 kg of crystalline methamphetamine per week
MDMA ('ecstasy')	
Belgium/Netherlands (2007):	120 kg MDMA (1,440,000 tablets); daily production capacities of 30 kg of MDMA base; over 100 litres of MDMA base per batch per day
Cikande, Indonesia (2005):	theoretical capacity (if in full production): 200 kg of ATS per day; 100 kg of 'ecstasy' per week
Amphetamine	
Belgium/Netherlands:	daily production capacities of 20 kg of amphetamine; production of up to 40 to 50 kg of amphetamine base per batch
Poland (2005/06/07):	scale of production: 1-10 kg of final product; 3-4 kg per batch; 3 kg per day
Bulgaria (2005):	more than 100 kg; raw materials for 10 kg of amphetamine
Serbia and Montenegro (2003):	annual production capacity: 150 kg (reported combined for 2 laboratories); 167,000 tablets

Available data for seizures of 'ecstasy' precursors (3,4-MDP-2-P) also reflect the recent change on the 'ecstasy' market, with increases in North America (Canada) and declines in West Europe (Netherlands), although manufacture in West Europe still remains globally significant.

On a global scale and for all ATS, precursor seizures in 2006 reached their lowest level in five years. This is believed to be in part the result of increasingly effective precursor control efforts together with successes from targeted operations and enforcement. ATS manufacture, which remained unchanged over the period, appears to have increasingly relied on the diversion of pharmaceutical preparations containing ATS precursors (especially methamphetamine precursors) and the use of alternative or substitute chemicals not currently under international control. At the same time, there have also been changes in precursor trafficking patterns, reflected in several recent reports of new trafficking corridors through Africa, the Near and Middle East, and West Asia.[6] The majority of suspicious methamphetamine precursor chemicals shipments through these regions were believed to be destined for Mexico.

ATS trafficking patterns changing and more involvement of organized crime

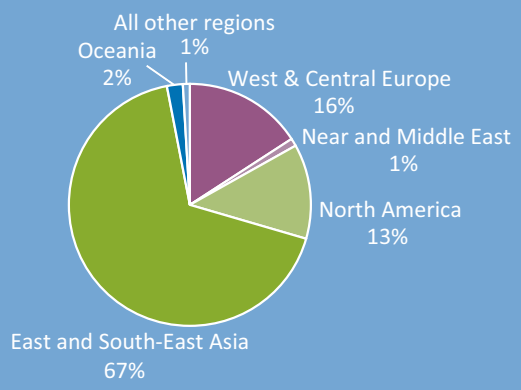
Given the lucrative market, the involvement of organized crime is not new to ATS, although the *intra*-regional nature of illicit manufacture and trafficking in the past did not require the building up of complex international networks. This has changed, with Member States reporting a tendency for the ATS trade to be increasingly dominated by various transna-

6 International Narcotics Control Board, *Precursors and chemicals frequently used in the illicit manufacture of narcotic drugs and psychotropic substances, 2007* (March 2008); EUROPOL, *Production and Trafficking of Synthetic Drugs and Precursors*, The Hague, Netherlands (March 2007).

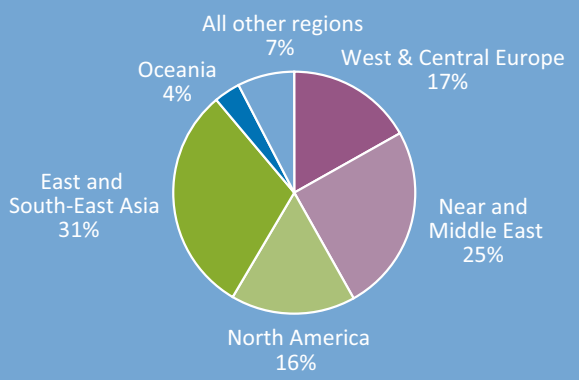
Seizures of 3,4-MDP-2-P in the Netherlands and Canada 2001-2006

Source: INCB, *Precursors and chemicals frequently used in the illicit manufacture of narcotic drugs and psychotropic substances, 2007* (March 2008) and previous years

ATS seizures by region 2000/01 (39.7 mt average)



ATS seizures by region 2005/06 (47.1 mt average)



Source: UNODC ARQ/ DELTA

tional organized crime groups working in concert with domestic crime groups. For example, Japan reported (2006) that one in two ATS-related arrests are of members of organized crime groups, a 27% increase in just three years. The partnerships between foreign and domestic crime groups result in, among other things, more sophistication in manufacturing (e.g. massive facilities, large-scale procurement of precursors, staged operations, mobile laboratories, industrial scrubbers to mask chemical fumes) and trafficking operations. They also include unusual partnerships between increasingly diverse nationalities and ethnicities (e.g. Asian-sourced precursors, West African and Asian traffickers, West European and North American chemists) acting in concert for purely business purposes.

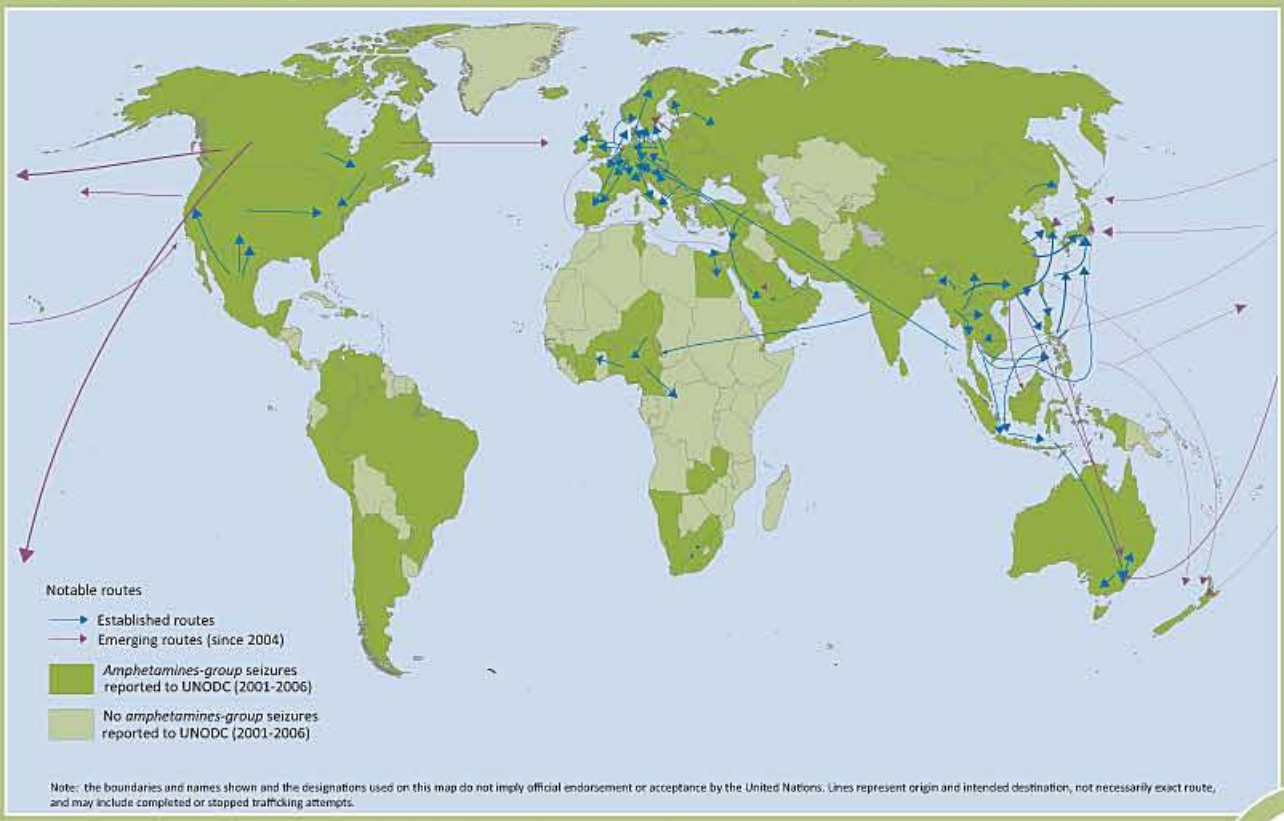
Over the last few years, the methamphetamine market has moved from being a cottage-type industry (with many small-scale manufacturing operations) to more of a cocaine- or heroin-type market, characterized by a higher level of integration and involvement of organized crime groups that control the entire chain from the provision of precursors, to manufacture and trafficking of the end-product. For example, Asian organized crime groups operating in Canada reportedly receive significant precursor shipments from Asia, which are then manufactured into methamphetamine and *ecstasy-group substances*. These same criminal groups then reportedly smuggle the finished product into the USA but also to a growing international market outside of the region.

Although the majority of ATS are still manufactured within the regions they are consumed, there is evidence of increasing *inter*-regional trafficking during the 2001-2006 period (see maps on the next page). In addition to North America (primarily Canada), East and South-East Asia have also emerged as sources of ATS for international markets. West Europe remains the major source of 'ecstasy' trafficked internationally, although its importance appears to be declining slightly.

Inter-regional trafficking has fuelled the spread of the ATS problem worldwide, as reflected in the number of countries reporting ATS seizures. For methamphetamine alone, there was a 58% increase in the number of countries that reported seizures (from 19 to 30) between 2001 and 2006. In 2006, first-time seizures of methamphetamine were reported by Saudi Arabia, Georgia, Niger and Bangladesh. First-time seizures were also reported for new forms of ATS, e.g. crystalline methamphetamine instead of tablets which have been more common in the region. In 2008, for example, Nepal reported the first seizures of crystalline methamphetamine.

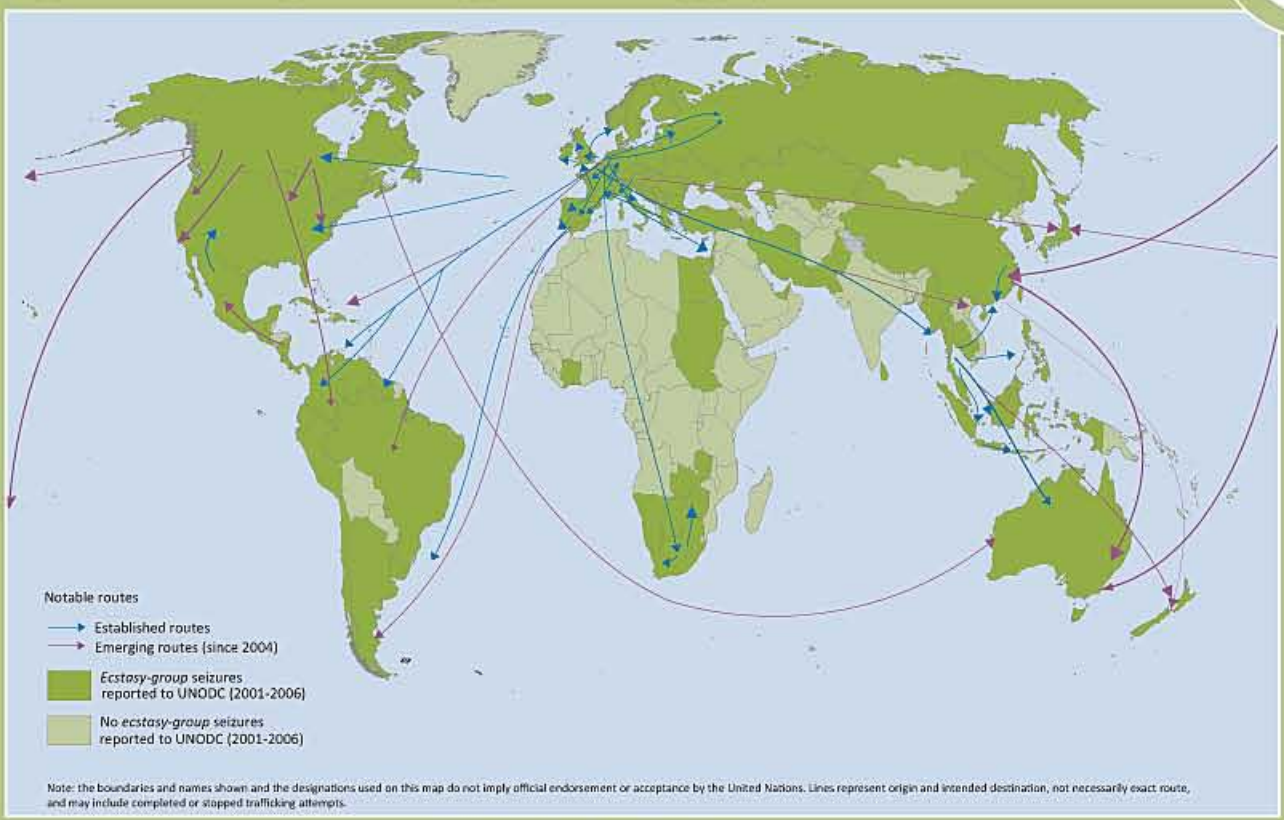
The most significant development has been the substantial increase in ATS seizures in the Near and Middle East, mainly Saudi Arabia, from about 1% of global totals in 2000/01 to one-quarter of all reported seizures in 2005/06. As a result of this increase, the percentage share of East and South-East Asia, previously the subregion with the largest share of

Snapshot of notable changes in trafficking patterns for *amphetamines-group substances* 2001-2006



Source: UNODC *Global Illicit Drug Trends, 2003; World Drug Report 2008* and previous years

Snapshot of notable changes in trafficking patterns for *ecstasy-group substance* 2001-2006

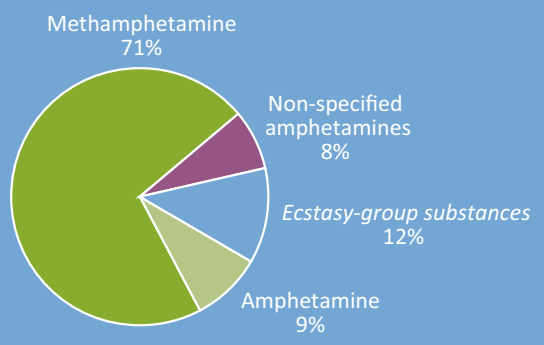


Source: UNODC *Global Illicit Drug Trends, 2003; World Drug Report 2008* and previous years

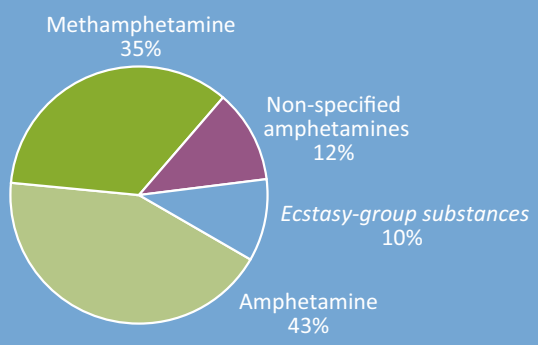
ATS global seizures, more than halved during that period, from 67% to 31%. The shares of North America and West and Central Europe remained relatively stable at around 13-17%, each, while Oceania doubled from 2% to 4% (the shares of "all other regions" increased from 1% to 7% during that period).

The regional shifts noted during the 2001-2006 period were accompanied by a steady increase in global ATS seizures, with levels in 2006 nearly reaching the previous peak in 2000. This growth was primarily due to the quadrupling of reported amphetamine seizures in the Near and Middle East. As a result, amphetamine has surpassed methamphetamine as the most trafficked ATS in 2005/06.

ATS seizures by type 2000/01 (39.7 mt average)

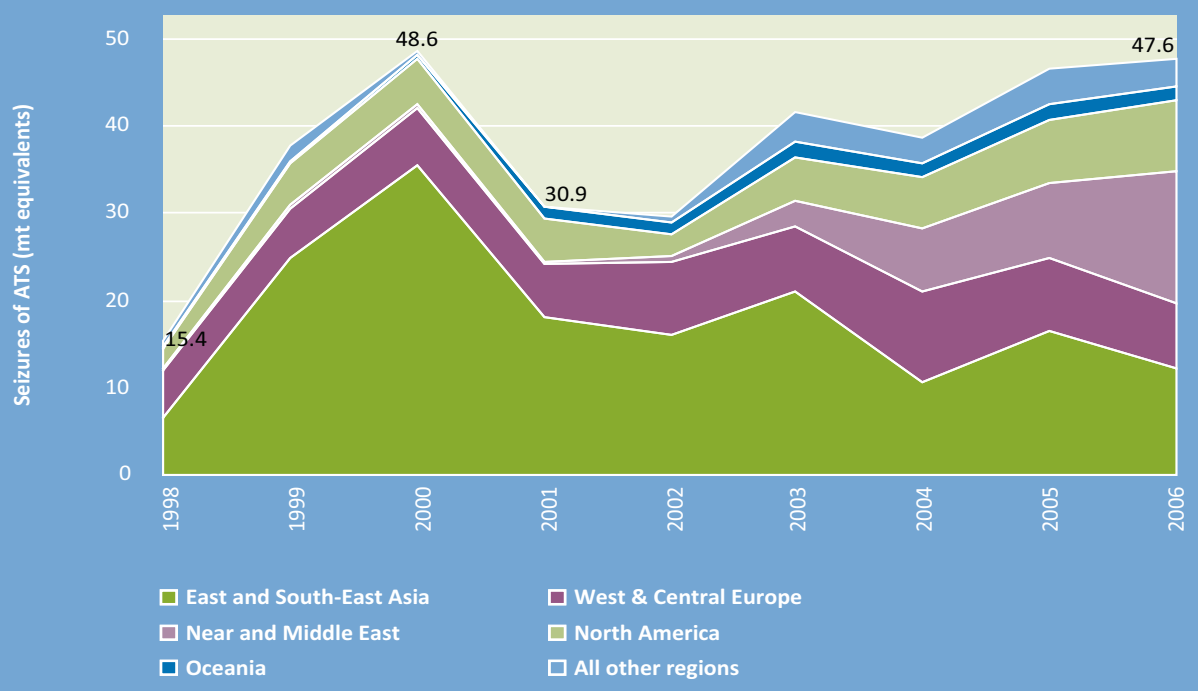


ATS seizures by type 2005/06 (47.1 mt average)



Source: UNODC ARQ/ DELTA

ATS seizure trends by region 1998-2006



Source: UNODC ARQ/ DELTA; World Customs Organization (WCO), *Customs and Drugs Report 2006* (June 2007)

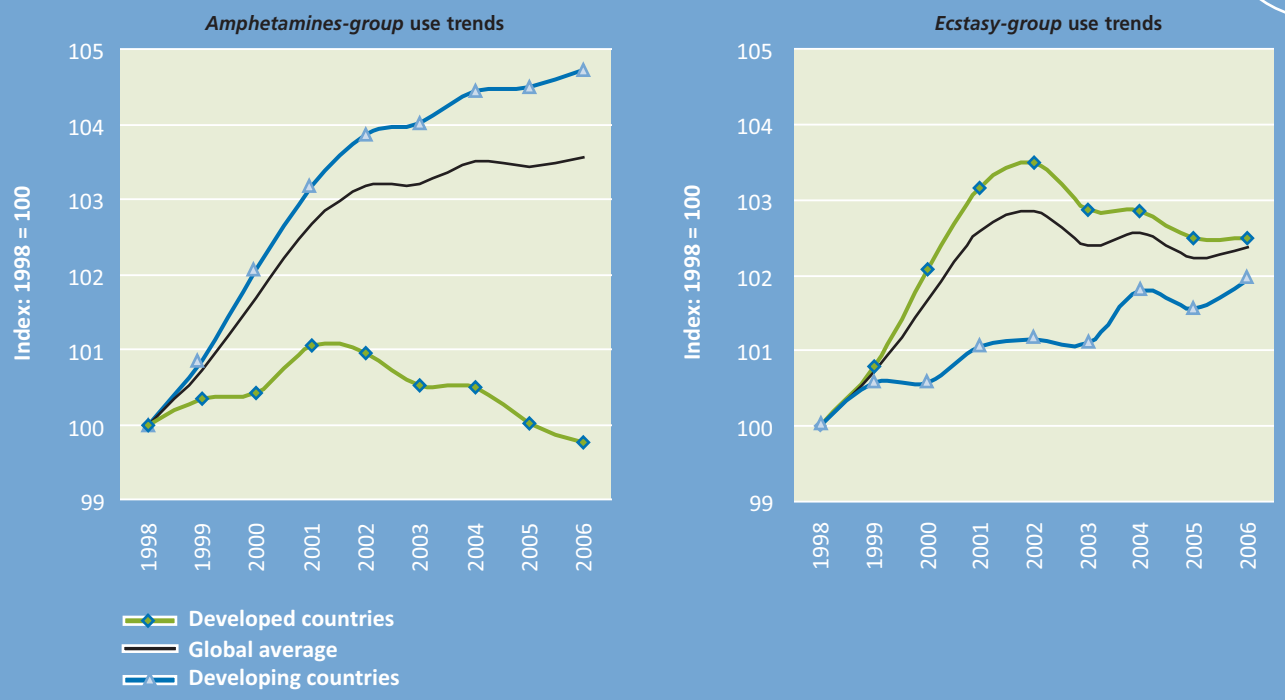
Annual prevalence estimates, by ATS and region 2002 and 2006

Region and selected subregions	*Amphetamines-group*			*Ecstasy-group*		
	In percent of population 15-64 years (2002)	In percent of population 15-64 years (2006)	Change between 2002 and 2006	In percent of population 15-64 years (2002)	In percent of population 15-64 years (2006)	Change between 2002 and 2006
Europe	0.44	0.45	↔	0.56	0.54	↔
Americas	0.89	0.96	↔	0.75	0.53	↓
North America	1.25	1.27	↔	1.28	0.81	↓
South America*	0.54	0.66	↑	0.17	0.25	↑
Asia	0.76	0.53	↓	0.02	0.08	↑
East and South-East Asia	1.28	0.90	↓	0.04	0.13	↑
Near and Middle East	0.07	0.15	↑	0.02	0.02	↔
Oceania	2.78	2.14	↓	2.23	3.21	↑
Africa	0.44	0.43	↔	0.02	0.04	↑
Global	**0.73**	**0.58**	**↔**	**0.21**	**0.21**	**↔**

*Includes South and Central America, and the Caribbean.

Source: UNODC, *World Drug Report 2004* and *World Drug Report 2008*

ATS use trends as perceived by experts, by substance, developed* and developing countries 1998-2006**



* OECD countries
** Non-OECD countries

Sources: UNODC ARQ; UNODC Field Offices; Drug Abuse Information Network for Asia and the Pacific (DAINAP); UNODC, Global Assessment Programme on Drug Abuse (GAP); Govt. reports; EMCDDA; CICAD; HONLEA reports and local studies

ATS consumption patterns changing

Shifts in ATS trafficking patterns have been mirrored by shifts in use. Between 2002 and 2006, the largest increase in *amphetamines-group* use was reported from the Near and Middle East, where annual prevalence estimates more than doubled, i.e. from the region that also showed the most substantial growth in ATS seizures. However, despite the strong increases, annual prevalence estimates in that region remain below the global average, a fact likely related to limited reporting. In absolute numbers, the majority of ATS users continue to live in East and South-East Asia, the most populous subregion in the world. While some declines were reported in that subregion, annual prevalence estimates (2006) remain above the global average. Mature *amphetamines-group* markets show stable (Europe, North America) or even decreasing (Oceania) use trends. This is in contrast to the situation a few years ago when ATS markets expanded across developed regions, including the USA.

'Ecstasy' use has expanded in most parts of the world since 2002, although the average global prevalence estimate remained unchanged. This is due to off-setting declines in major markets in North America and to a lesser degree in Europe, the two regions where, in absolute numbers, the majority of 'ecstasy' users live. Annual prevalence estimates for 2006 are significantly above the global average for Oceania, but also for Europe and the Americas. While remaining small in relative terms, prevalence estimates for *ecstasy-group substances* in East and South-East Asia more than tripled between 2002 and 2006.

Experts' perceptions support the overall picture at global level. About half of the experts that reported on *amphetamines-group* and *ecstasy-group* use trends indicated a stabilizing trend. For *amphetamines-group substances* and *ecstasy-group substances* 41% and 30%, respectively, of experts saw a worsening of the ATS problem. However, ATS use trends as perceived by experts are strongly subregionally specific, as detailed in the regional chapters of this report.

Trends in ATS use[7] can also be correlated with the development levels of countries. While developed nations[8] have managed to stabilize or even reduce the size of their *amphetamines-group* problem over the last five years, growth continues in developing countries, although at slower pace than before 2001.

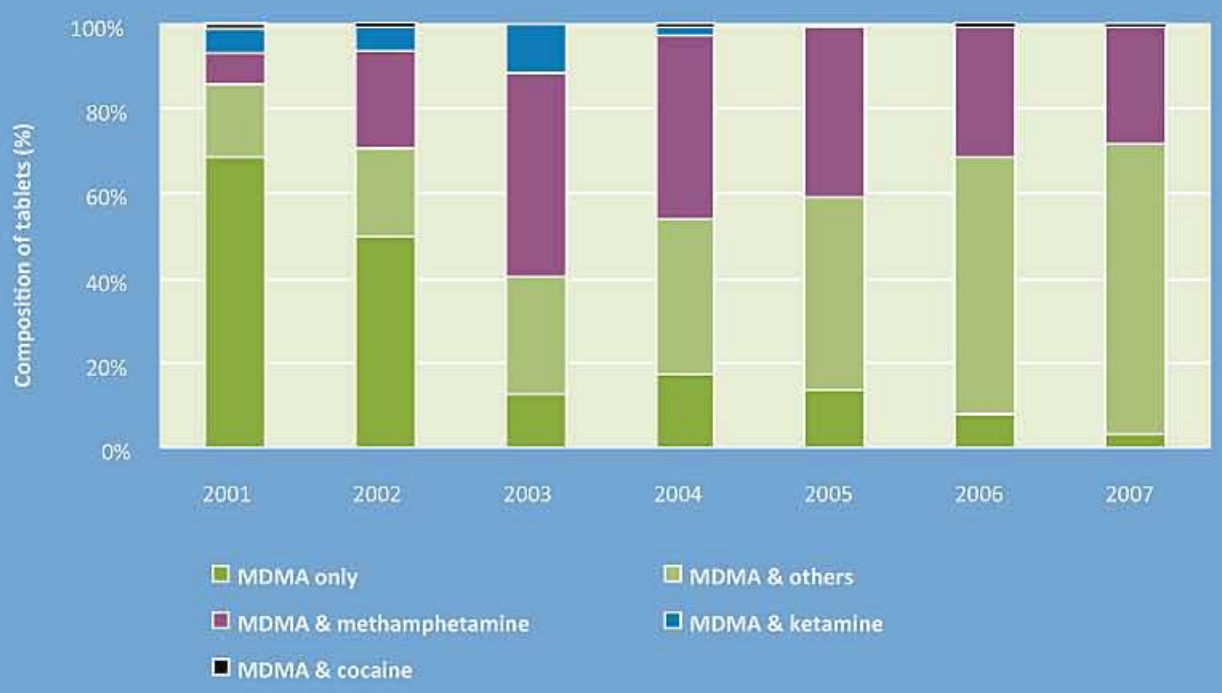
In contrast, *ecstasy-group* use has long been confined to developed countries with substantial growth rates over the 1998-2001 period. Since 2001, however, use in developed countries has been perceived as declining, while increases, albeit moderate, are occurring in developing nations.

This development is of concern as it relates to the potential for future growth, given that many of these countries are emerging economies with growing middle-classes that may represent lucrative new markets for 'ecstasy'. An added concern is that many of these countries are characterized by large proportions of youth, an age group potentially vulnerable to ATS use, particularly 'ecstasy'.

7 Trends are based on expert perceptions reported in response to UNODC's ARQ. Points allocated for trend data: 'strong increase': 2; 'some increase': 1; stable: 0; 'some decline': -1; 'strong decline': -2. Reported drug use trends were weighted by the proportion of *amphetamines-group* users in a country expressed as a percentage of global *amphetamines-group* use. If all countries had reported 'some increase', the global trend line would have increased by one point each year and would have reached 114 by 2006.

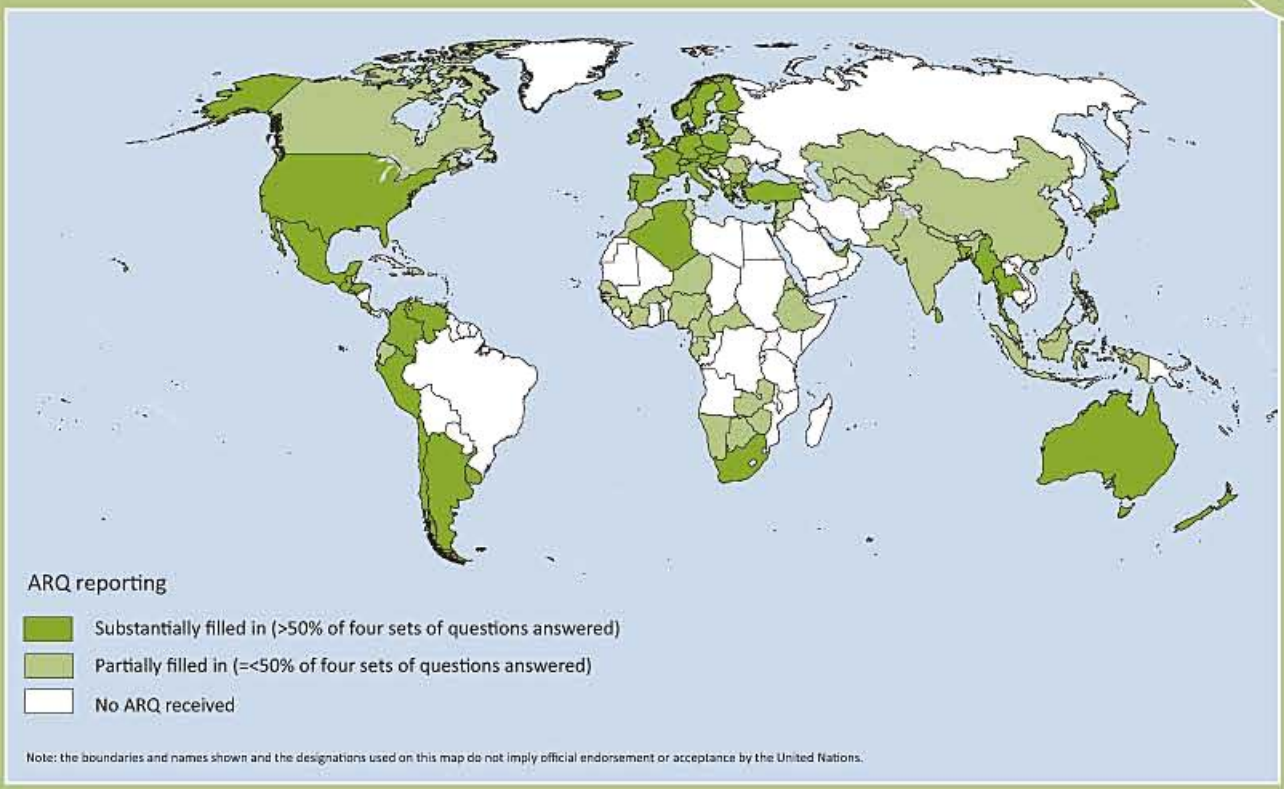
8 There is no established convention for the designation of "developed" countries or areas in the United Nations system. See United Nations Standard country or Area Codes for Statistical Use. Series M, No. 49, Rev. 4 (United Nations publication, Sales No. M.98.XVII.9). Therefore, for the purposes of this analysis, "developed countries" are the member countries of the Organisation for Economic Co-operation and Development (OECD)

Changes in the composition of 'ecstasy' tablets: Canada, 2001-2007



Note: results of forensic tests of substances submitted by law enforcement initially "believed" to be 'ecstasy'.
Source: Health Canada Drug Analysis Service, *Illicit Drug Surveillance, (2008)*; *Illicit Synthetic Drugs Surveillance in Canada*, presentation at the Expert Meeting for Global Illicit Synthetic Drug Monitoring Programme, Tokyo, Japan (Feb 2008)

Member State completeness of response to the 2006 Annual Reports Questionnaire (Part II: Demand)



Source: UNODC ARQ (2006)

Diversification of ATS

Although limited in scope, available forensic information suggests that what users believe to be 'ecstasy' (i.e. containing MDMA) is in many countries often a variety of other substances, including substances not currently under international control, such as ketamine.[9] For instance, in Canada,[10] the share of 'ecstasy' tablets with only MDMA as the active ingredient decreased from 69% in 2001 to just 3% in 2007.

Similar declines in the share of ATS tablets containing the specific ATS for which they were marketed have also been reported, for example, in the Netherlands ('ecstasy'), UK ('ecstasy') and Viet Nam ('ecstasy' and methamphetamine).

This mismatch between marketed and actual content has implications for prevalence estimates of 'ecstasy' use, which may therefore reflect very different markets in different regions. Of more concern than annual prevalence estimates is the fact that those substances and combinations thereof have very different, often unexpected and sometimes fatal health consequences.[11]

Another development has been the emergence of new forms of ATS, such as high purity crystalline methamphetamine in several countries in South-East Asia that previously only had methamphetamine tablets. Limited awareness of crystalline methamphetamine among law enforcement personnel may mask the real extent of this new development, which also has serious health implications as crystalline methamphetamine is also used intravenously.

Methodological constraints

Analysing ATS markets and developing an evidence base upon which actions to counter the ATS problem can be built relies on accurate, comparable and timely data. UNODC analyses are based on data reported by Member States. However, there is irregular and/or incomplete reporting[12] from several key regions, including East and South-East Asia (e.g. Viet Nam), South Asia, the Near and Middle East (e.g. Saudi Arabia), subregions within the Americas (e.g. Brazil), much of Africa and most Pacific islands states and territories. As this report shows, these are the very regions for which there are already indications of future spread of the ATS problem.

Irregular or incomplete reporting from Member States is compounded by the varying quality of data provided. Specifically, and similar to other drugs, information about the extent of ATS consumption (prevalence rate) is the weakest indicator, as household and other surveys are lacking or are outdated in some countries in several of the most affected regions (according to supply side indicators and/or expert opinion). Unfortunately, this happens to be the case in several populous countries (i.e. China and India), thus affecting regional and global prevalence estimates. Another major limitation, as this report shows, is the lack of systematic forensic information - on the specific ATS substances, the actual precursors used and the size and capacity of clandestine laboratory operations. Without these data, which provide critical evidence for both demand and supply side trends, specific regional shifts and emerging trends in ATS markets fail to be detected in a timely manner. Lack of these data, together with lack of price data, also affects estimates of wholesale and retail market values, mark-ups, and the profitability of the ATS market.

Finally, and specific to ATS (and synthetic drugs generally) there is the need to estimate manufacture indirectly since there are no geographical limitations to ATS manufacture. The current methodology to estimate ATS manufacture is based on triangulation of the estimates of three sub-components (seizures of ATS end-products, seizures of ATS precursors, and ATS prevalence rates). Each of the sub-components relies on data reported by Member States and, where incomplete or absent, on a variety of assumptions and extrapolations. Nevertheless, the triangulation model represents the best practice thus far for estimating global manufacture.

Conclusion

Information provided in this report indicates that there have been significant changes over the past few years, including increases in size and sophistication of clandestine laboratories, changes in precursors and manufacturing methods, and changes in the forms and content of ATS end-products. At the same time, there are mixed developments on the demand side, with successes in some parts of the world (stabilization of ATS use in developed countries) but continued increases

9 Ketamine, which has been used for decades as a recreational hallucinogen, emerged - initially largely unnoticed - as an ingredient in 'ecstasy' tablets on the East and South-East Asian ATS market over the last few years.

10 Canada is one of the few countries from which consistent time series forensic information is available.

11 PMA (*para*-methoxyamphetamine) reappeared in 'ecstasy' tablets in Australia in 2007, and has been associated with a number of deaths in that country.

12 Reporting is generally better for the ARQ on supply issues, and Member States' reporting can be uneven between the two ARQ types. An example is Russia that did not submit data on drug demand (ARQ Part II) but substantially filled in the ARQ on Supply (Part III).

in developing countries. Much of the latter increase is the result of a rapid supply-driven spread to new markets, such as amphetamine in the Near and Middle East. At the same time, there are indications of a shift of 'ecstasy' manufacture from Europe closer to consumer markets in North America. The divergent developments for amphetamine and 'ecstasy' reflect different stages of the supply-push and demand-pull interplay of illicit drug markets and appear to confirm that supply-driven market opportunities that characterize a developing market are gradually replaced by a demand-driven expansion once a market has matured.

Apart from new markets in the Near and Middle East, developments in East and South-East Asia and the Pacific are also cause for considerable concern. Some of the biggest clandestine laboratories that have ever been detected were dismantled in this subregion. As a result, East and South-East Asia have now emerged as another source of ATS for international markets, although available seizure and consumption data fail to explain the whereabouts of the enormous amounts of ATS that could potentially be manufactured in the region.

A central theme that emerges from the report is that the spread of ATS in recent years is strongly correlated with inadequate infrastructure, inadequate implementation of existing regulatory frameworks and/or the lack of resources to respond to the ATS phenomenon in a timely and strategic manner. Developed countries with adequate resources at their disposal show a stabilization or even decrease of ATS manufacture, trafficking and/or use, while more vulnerable[13] countries that are often nearby appear to be increasingly targeted by criminal organizations for illicit manufacture and/or trafficking operations.

Action to counter the ATS problem requires an evidence base of information. Unfortunately, but not surprisingly, data limitations are biggest in countries and regions where available indicators point to the strongest increases in the ATS problem, reflecting the lack both of infrastructure and experience, and of the resources and ability to respond adequately.

The rapid changes which occur in ATS markets, driven largely by transnational organized crime groups that control the entire chain from the provision of precursors, to manufacture and trafficking of the end-product, create a series of challenges related to assessing the ATS situation and, ultimately, to Member States' law enforcement, judicial, prison and health care systems, which need information to respond adequately to the current challenges and those ahead.

The evidence presented in this report shows that analyses without subregional market detail result in estimates with a high level of generalization. While this may be acceptable for analyses of overall, global trends, it cannot be acceptable, and may in fact be misleading, at subregional or national level, considering that inflated estimates divert resources from where more urgent intervention is required while deflated estimates lead to inactivity, which allows the problem to proliferate.[14]

13 Vulnerability, in this regard, is a result of both limited awareness and lack of preparedness to address the ATS phenomenon adequately, and real limitations in human, financial and technological resources, i.e. the overburdening of national infrastructures and law enforcement, judicial, prison and health care resources.

14 Bacha M., *The dangers of inaccurate trafficking estimates*, UNCRI Journal, Vol. 1(2) (2002).