



**UNODC**

United Nations Office on Drugs and Crime



Inter-American Drug Abuse  
Control Commission

# Amphetamine-Type Stimulants in Latin America

Global SMART Programme

2014

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Suggested citation: UNODC/OAS, *Amphetamine-type Stimulants in Latin America 2014*

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This publication has not been formally edited.

# Amphetamine-Type Stimulants in Latin America 2014

A Report from the Global SMART Programme

February 2014

**United Nations Office on Drugs and Crime**

**Organisation of American States**

## Acknowledgments

The report *Amphetamine-type Stimulants in Latin America 2014* was prepared by UNODCs Laboratory and Scientific Section under the supervision of its Chief, Justice Tettey, within the framework of the Global Synthetics Monitoring: Analyses, Reporting and Trends (SMART) Programme in cooperation with the Organisation of American States' (OAS) Inter-American Drug Abuse Control Commission (CICAD) under the supervision of the Head of the Inter-American Observatory on Drugs, Francisco Cumsille.

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The Laboratory and Scientific Section would like to thank the following organizations and institutions who made the development of this report possible:

The national drug control agencies participating in the Drug Abuse Information Network for Latin America and the Caribbean (DAINLAC)

UNODC would like to acknowledge the Government of Canada for providing funding for this report as well as the Governments of Australia, Japan, New Zealand, Republic of Korea, Russian Federation, Thailand, United Kingdom and the United States of America for their financial support to the Global SMART Programme.

The report also benefited from the work and expertise of many other UNODC and OAS staff members in Vienna, Washington DC and around the world.

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# The Global SMART Programme

UNODC launched the Global Synthetics Monitoring: Analyses, Reporting and Trends (SMART) Programme in September 2008. The Programme enhances the capacity of Member States in priority regions, to generate, manage, analyse and report synthetic drug information, to design effective policy and programme interventions. Responding to the emerging threat of new psychoactive substances (NPS), the Global SMART Programme currently leads the development of the UNODC Early Warning Advisory (EWA) on NPS. The EWA is the first international monitoring system on NPS that provides timely reporting on the emergence of NPS and serves as a global reference point on these substances. Additionally, the Advisory contributes to an improved understanding of the patterns of distribution and use of NPS, as a basis for evidence-based policies.

The Global SMART Programme has been implemented in a gradual phased manner, with East Asia being the first priority region. Since 2011, the Global SMART Programme is implemented in the Americas, in cooperation with the Inter-American Drug Abuse Control Commission (CICAD) of the Organization of American States.

This regional report is the first situation assessment for Latin America put forward under the Global SMART Programme. It forms one of the key steps in providing consolidated up-to-date analysis, based on the information shared by Member

States. It is hoped that the information on drug trends presented in this report will make a practical contribution to addressing the significant threat posed by the illicit manufacture of, trafficking in and use of ATS, and to a lesser extent of NPS, in the Latin American region. The report aims to place policymakers in a better position to evaluate the drug situation and make informed decisions on intervention and prevention strategies.

An overview of the ATS situation in the region, outlining several key issues and emerging threats in the region is provided in the report, including the emergence of NPS. While the data presented point towards the increased efforts by the countries in the region to tackle the ATS problem, it also highlights the need for continued and joint efforts, both at the national and regional levels. It is hoped that this report and the forthcoming Global SMART updates, will help in the better understanding of the synthetic drug problem in the region and in designing effective strategies to combat it.

The Global SMART Programme in the Americas builds on the experience of the ATS Data and Information System implemented by UNODC in East Asia and the Pacific (DAINAP). Data collection focuses on national trends, treatment and health-related information, and law enforcement data and is submitted frequently by Member States through a written questionnaire sent to the Drug Abuse Information Network for Latin America and the Caribbean (DAINLAC).

# Abbreviations

ARQ	Annual Reports Questionnaire (UNODC)
ATS	Amphetamine-type stimulants
BZP	Benzylpiperazine
CBP	Cocaine base paste
CAN	Andean Community
CICAD	Inter-American Drug Abuse Control Commission
CND	Commission on Narcotic Drugs (UN)
COPOLAD	Cooperation Programme on Drugs Policies between Latin America and the European Union
DAINLAC	Drug Abuse Information Network for Latin America and the Caribbean
DELTA	UNODC Database on Estimates and Long-term Analysis
DEVIDA	National Commission for Development and Life without Drugs
DOM	2,5-Dimethoxy-4-methylamphetamine
DPDAR	Direction of Drug Policy and Related Activities (Colombia, Ministry of Justice)
DROSICAN	Support to the Andean Community in the Area of Synthetic Drugs
GHB	Gamma-Hydroxybutyrate
ICD	Costa Rican Drug Institute
ICMP	UNODC Illicit Crop Monitoring Programme
INCB	International Narcotics Control Board
INCSR	International Narcotics Control Strategy Report
LAC	Latin American countries
LSD	(+)-Lysergide
<i>m</i> CPP	1-(3-Chlorophenyl) piperazine
MDA	3,4-Methylenedioxyamphetamine
MDEA	3,4-Methylenedioxy-N-ethylamphetamine
MDMA	3,4-Methylenedioxymethamphetamine
MDPV	Methylenedioxypyrovalerone
MEM	Multilateral Evaluation Mechanism
NGO	Non-governmental organization
NIDA	National Institute on Drug Abuse (United States)
NPS	New Psychoactive Substances
NSA	Non-Specified ATS
OAS	Organization of American States
OID	Inter-American Observatory on Drugs
ONDCP	Office of National Drug Control Policy
P-2-P	1-Phenyl-2-propanone
PEN	Pre-Export Notification Online System
PRADICAN	Andean Community Programme against Illicit Drugs
PRECAN	Program to Prevent the Diversion of Chemical Precursors for Drug Manufacturing in the Andean Countries
PRELAC	Prevention of the Diversion of Drug Precursors in the Latin American and Caribbean Region
SECCATID	Executive Secretariat of the Commission against Drug Addictions and Illicit Drug Trafficking
SEDRONAR	Secretariat of Programming for the Prevention of Drug Addiction and the Fight against Drug Trafficking
SENAD	National Anti-Drug Secretariat (Paraguay)
SENAD	National Drug Policies Secretariat (Brazil)
SENDA	National Drugs and Alcohol Service (Chile, formerly CONACE)



SG-CAN	General Secretariat of the Andean Community
SMART	Global Synthetics Monitoring: Analyses, Reporting and Trends
THC	<i>delta</i> -9-Tetrahydrocannabinol
UNODC	United Nations Office on Drugs and Crime
WDR	UNODC World Drug Report
WHO	World Health Organization

## Weights and Measurements

g	grams
kg	kilogrammes
lt.	litres
mg	milligrams
mt	metric tons

# Notes to the Reader

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Countries and areas are referred to by the names that were in official use at the time the relevant data were collected.

The following notes describe certain terms, regional designations, data sources and timeframes used throughout this document.

**ATS** – Amphetamine-type stimulants (ATS) are a group of substances comprised of synthetic stimulants, including amphetamine, methamphetamine, methcathinone, and ecstasy-group substances (e.g. MDMA and its analogues).

In various sections of the present report, amphetamine and methamphetamine are also referred to as amphetamines. In cases where countries reported to UNODC without indicating the specific ATS they are referring to, the term non-specified ATS was used. Many of the surveys conducted, both in the general population and among high-school students, provided information on the use of “stimulating” substances without specifying the type of amphetamine-type stimulant to which they refer to. In these cases, where no chemical analyses were carried out to determine the type of substance being consumed, the generic name of non-specified ATS was used. Use of ecstasy-type substances was usually reported separately and is therefore not included in the non-specified ATS group.

Pills which are marketed to contain an ecstasy-group substance, but may actually contain a variety of other substances, are referred to as ‘ecstasy’.

Data corresponding to the use of inhalants, sedatives and tranquilizers in the region are not included in this report.

**Cocaine** – Although produced from a somewhat variable natural product, by a batch process capable of wide variation, cocaine varies comparatively little when compared for example to heroin. For the most part it is a white or off-white crystalline powder which is often fine, and rarely damp. Adulteration is comparatively rare (but not unknown) for material being internationally trafficked with a purity of about 80-90% (as cocaine hydrochloride). Subsequent adulteration and transformation for trafficking purposes usually involves the addition of uncontrolled substances such as levamisole (and/or tetramisole), phenacetin, lidocaine, caffeine, diltiazem, hydroxyzine, procaine, benzocaine or sugars (e.g. mannitol, lactose or glucose). Cocaine is usually sniffed/snorted and although it can also be injected, this form of administration is unusual in the region.

**Cocaine base paste (CBP)** – “paco” in Argentina and Uruguay; “basuco” in Colombia; “pitillo” in Bolivia; “pasta base” in Chile and “pasta” in Peru. This is an off-white, creamy or beige-coloured powder; it is rarely fine, often contains aggregates and is generally damp. Unless the aggregates are crystalline (which is rare) they usually break down under slight pressure. It has a characteristic odour. Its use is common in the Andean countries, from where it has spread to Argentina, Chile, Paraguay, Uruguay and Venezuela.

**“Crack” cocaine** – A flaky, hard material obtained by adding ammonia or sodium bicarbonate (baking soda) and water to cocaine hydrochloride and heating the resulting precipitated powder. The term “crack” which is the street name given to freebase cocaine, refers to the crackling sound produced when the mixture is heated. Crack cocaine is usually smoked.

**Country names and geographic terms** – The terms “region” and “Latin America,” unless otherwise specified, generally refer to the geographical area that includes the countries and territories in:

Central America: Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and Panama

North America: Mexico

South America: Argentina, Bolivia (Plurinational State of), Brazil, Chile, Colombia, Ecuador, Paraguay, Peru, Uruguay, and Venezuela (Bolivarian Republic of)

**Data sources** – The information and data presented in this publication were obtained primarily through the Drug Abuse Information Network for Latin America and the Caribbean (DAINLAC), using a Global SMART questionnaire sent to all Member States in Central America, South America and Mexico, in March 2012. Additional information was obtained from UNODC Annual Reports Questionnaires (ARQ), Government reports, scientific literature, data extracted from other UNODC and INCB reports, and from the CICAD/OAS databases. Regarding ecstasy, information in Latin America on the use of this substance is primarily based on surveys among high-school students. Nevertheless, some countries provided additional data on the general population and on undergraduate students.

**Data time frame** – Drug trend data contained in this report cover the 2007-2012 period, except in instances where a longer historical timeframe is necessary to provide a clear explanation of particular drug trends.

**Drug use** – As there is some scientific and legal ambiguity about the distinction between “drug use”, “drug misuse” and “drug abuse”, the neutral terms “drug use” and “drug consumption” are used indistinctly in this report.

**Seizure of illicit drugs** – Data related to seizures of ATS, their precursors and clandestine manufacture are subject to change for a variety of reasons, such as new or late data being added

or revisions in data already provided by Member States. Thus, some figures may differ from previously published figures. All data reported herein reflect the most up-to-date and accurate information available at the time of writing.



# Executive summary

This regional report on “Amphetamine-type Stimulants in Latin America” presents a comprehensive overview of the latest developments in the illicit synthetic drug market of this region. It covers illicit manufacture, trafficking, use and treatment in selected countries. The first part of the report highlights terminology and challenges related to data collection in the region. The second part addresses the key emerging trends and challenges related to amphetamine-type stimulants (ATS) use, their precursors and other emerging drugs in the region, namely new psychoactive substances (NPS).

## *Data gaps*

Information on ATS in the region remains very limited, especially with regard to use of specific substances. In most countries in the region, the categories used in drug use surveys are too broad and need to be refined to be able to differentiate between non-medical use of prescription drugs, ATS and NPS. The limited data on ATS trafficking and manufacture does not allow an accurate estimation of the size of this market in Latin America. ATS sources and trafficking routes in the region remain to a large extent unknown, in spite of these substances increasingly being used by youth in the region.

## *ATS use among youth in the region*

The analysis of drug use behaviour and seizure patterns reflected in this report points to a growing ATS problem in the region, especially among youth, a development which is not readily evident in the surveys covering ATS use among the general population.

In Latin America, cannabis and cocaine have traditionally been the most important drug problem, both in terms of use and trafficking, among the general population. However, the use of ATS

seems to have expanded among young people, overtaking in some cases the use of traditional drugs used in the region such as cannabis and cocaine. Non-specified ATS (a term used if detailed information at the substance level is not available) use was reported to be higher than cannabis and cocaine use among high-school students in Ecuador, Honduras and Venezuela. Meanwhile, in Brazil, El Salvador, Mexico, Paraguay and Peru, non-specified ATS use was reported to be higher or comparable to cocaine use among high-school students.

These above-mentioned studies indicate that ATS use is comparable to cannabis and cocaine use among younger population groups. However, it remains unclear in these studies if the general term of “non-specified amphetamines” refers to amphetamine and/or methamphetamine, diverted/counterfeit prescription drugs containing ATS or a combination of these. The lack of disaggregated data within the category of non-specified amphetamines limits the scope of analysis presented in this report and the understanding of the ATS problem in the region.

Information on prevalence of methamphetamine use is only available for four Andean countries (among undergraduate students, in the Plurinational State of Bolivia, Colombia, Ecuador and Peru), Brazil (among high-school students) and Mexico (restricted to the State of Mexico). However, treatment data indicate that methamphetamine use has also expanded to other countries. In addition to Brazil and Mexico, Argentina, Chile, Colombia, Guatemala, Panama, Peru and Venezuela have reported treatment admissions related to methamphetamine use.

There has been some progress in the collection of data on ecstasy prevalence in the region. Ecstasy use among the general population in Latin America is low and generally below 0.2 per cent (annual prevalence), but youth surveys in the region have reported a higher prevalence of ecstasy

Several new psychoactive substances (NPS) were identified in the region either by chance or through targeted efforts. Nine countries in the region have already reported NPS to UNODC, including synthetic cannabinoids, synthetic cathinones, synthetic phenethylamines, ketamine and plant-based substances.

### ATS seizures

### ATS manufacture and trafficking

There are indications that methamphetamine manufacture has moved southwards from Mexico, especially to Central American countries where methamphetamine/amphetamine manufacture has been reported by Guatemala and Nicaragua. Between 2007 and 2012, thirteen<sup>4</sup>

<sup>4</sup> Argentina, Brazil, Chile, Colombia, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay and Venezuela.

<sup>5</sup> Argentina, Chile, El Salvador, Guatemala, Honduras, Mexico, Panama and Venezuela.

# Resumen Ejecutivo

Este informe regional sobre los “Estimulantes de Tipo Anfetamínico en América Latina” presenta una visión global de las últimas novedades en el mercado de drogas sintéticas ilícitas de esta región. El mismo cubre aspectos relacionados con la fabricación ilícita, el tráfico, el uso y tratamiento, en los países seleccionados. En la primera parte del informe se destacan los desafíos relacionados con la terminología y con la recolección de los datos en la región. La segunda parte aborda las principales tendencias emergentes y desafíos relacionados con el uso de los estimulantes de tipo anfetamínico (ETA), sus precursores y otras drogas emergentes en la región, a saber, las nuevas sustancias psicoactivas (NSP).

## *Falta de datos*

La información sobre ETA en la región continua siendo muy limitada, especialmente con respecto al uso de determinadas sustancias. En la mayoría de los países de la región, las categorías utilizadas en las encuestas de consumo de drogas son demasiado amplias y necesitan ser refinadas para ser capaces de diferenciar entre el uso no médico de medicamentos de prescripción, los ETA y las NSP. La escasez de datos sobre el tráfico y producción de ETA no permite una estimación precisa sobre el tamaño de este mercado en América Latina. Las fuentes y rutas de tráfico de los ETA continúan siendo en gran medida desconocidas, a pesar de que estas sustancias son utilizadas cada vez por los jóvenes de la región.

## *El uso de ETA entre los jóvenes de la región*

El análisis de los patrones de conducta del uso y de las incautaciones presentado en este informe apunta a un creciente problema de ETA en la región, especialmente entre los jóvenes, un desarrollo que no se refleja en las encuestas sobre uso de ETA en la población general.

En América Latina, el cannabis y la cocaína han sido tradicionalmente el problema de drogas más importante, tanto en términos de consumo como de tráfico, en la población general. Sin embargo, el uso de ETA parece haber aumentado entre los jóvenes, superando en algunos casos el uso de drogas tradicionalmente utilizadas en la región, tales como el cannabis y la cocaína. Se reportó que el uso de estimulantes de tipo anfetamínico no especificados –un término que se utiliza si la información detallada al nivel de sustancias no está disponible– fue más alto que el uso de cannabis y cocaína entre los estudiantes secundarios de Ecuador, Honduras y Venezuela. Mientras tanto, en Brasil, El Salvador, México, Paraguay y Perú el uso de estimulantes de tipo anfetamínico no especificados fue superior o comparable al uso de cocaína entre estudiantes secundarios.

Los anteriores estudios indican que el uso de estimulantes de tipo anfetamínico es comparable al uso de cannabis y cocaína entre los grupos de población más jóvenes. Sin embargo, no queda claro en esos estudios si el término general de “anfetaminas no especificadas” se refiere a la anfetamina y/o a la metanfetamina, medicamentos de venta con receta desviados/falsificados que contienen estimulantes de tipo anfetamínico o todos ellos juntos. La falta de datos desagregados en la categoría de las anfetaminas no especificadas limita el alcance del análisis que se presenta en este informe.

La información sobre la prevalencia del consumo de metanfetamina sólo está disponible para los cuatro países andinos (entre los estudiantes universitarios del Estado Plurinacional de Bolivia, Colombia, Ecuador y Perú), Brasil (entre estudiantes secundarios) y México (limitada al Estado de México). Sin embargo, los datos sobre tratamiento relacionado con el uso de ETA indican que el uso de la metanfetamina se ha expandido a otros países. Además de Brasil y México, Argentina, Chile, Colombia, Guatemala, Panamá, Perú y Venezuela han registrado admisiones a tratamiento relacionadas con el uso de metanfetamina.

Varias nuevas sustancias psicoactivas (NSP) fueron identificadas en la región, ya sea por casualidad o a través de esfuerzos focalizados. Nueve países de la región informaron NSP a UNODC, incluyendo cannabinoides sintéticos, catinonas sintéticas, fenetilaminas sintéticas, ketamina y sustancias de origen vegetal.

Una gran parte de las incautaciones de metanfetamina en la región fueron reportadas por México (se comunicaron incautaciones de varias toneladas desde 2009). Los demás países no informaron de incautaciones de metanfetamina o comunicaron incautaciones anuales inferiores a 1 kg, a excepción de Argentina (20 kg in el 2008, 9 kg en el 2011 y 17 kg en el 2012) y Brasil (12 kg en 2011). Las incautaciones de sustancias de tipo éxtasis son generalmente bajas en la región. Trece países<sup>7</sup> comunicaron incautaciones de éxtasis desde 2007 a 2012, pero en seis de ellos las incautaciones anuales de éxtasis no excedieron, en general, 1 kg.<sup>8</sup>

Existen indicios de que la fabricación de metanfetamina se ha movido hacia el sur, desde México, especialmente hacia los países centroamericanos donde la fabricación de metanfetamina/anfetamina ha sido informada por Guatemala y Nicaragua. Entre el 2007 y el 2012, trece países<sup>9</sup> de la región informaron incautaciones de precursores de anfetamina/metanfetamina, entre los cuales ocho comunicaron incautaciones de varias toneladas.<sup>10</sup> Las mayores incautaciones de precursores fueron reportadas por México, los países centroamericanos (Guatemala, El Salvador y Honduras) y por Argentina. No hay información sobre la fabricación de éxtasis en la región, con excepción de Brasil, que informó del desmantelamiento de un laboratorio para la fabricación de esta sustancia en el 2011.

<sup>8</sup> Ecuador, El Salvador, México, Panamá, Paraguay y Venezuela.

<sup>10</sup> Argentina, Chile, El Salvador, Guatemala, Honduras, México, Panamá y Venezuela.





## 1. Amphetamine-type stimulants in the Americas: terminology and challenges related to data collection

Terminology issues related to the definition and categorization of amphetamine-type stimulants (ATS) in the region are one of the main challenges that have been identified when collecting, collating and analysing data on ATS. The paucity of knowledge on ATS among the general population and authorities, and the lack of capacity to identify specific substances remain an obstacle for an accurate estimation of the extent of the ATS problem in Latin America.

Inappropriate use of pharmaceutical preparations with stimulant properties is a significant problem in the region and their use is reported to be higher in the Americas than in Europe and Asia. Survey results in the region indicate that the term “synthetic drugs” is often associated with the use of medicines that contain amphetamine, but which are used for non-medical purposes. Amphetamine-containing medicines are often cited as examples of ‘stimulants’ and data provided on the use of “stimulants” substances is not disaggregated, making it very difficult to identify the specific type of ATS that is reported. Coupled with this problem is the lack of inclusion of ATS in the drug surveys of some countries.

Progress in overcoming the problem of terminology related to ATS is observed in Argentina, Chile and Uruguay, countries that have started to incorporate specific questions about amphetamine, methamphetamine and ecstasy in their drug surveys since 2011. In addition, Colombia is the only country in the region that has undertaken a study on the chemical characterization of ATS used in the capital Bogota.<sup>11</sup>

For purposes of clarification, and in order to contribute to improved data collection in the region, a brief description of the terminology pertaining to ATS is provided below. ATS are a group of substances comprised of synthetic stimulants including amphetamine, methamphetamine, ecstasy-type substances (e.g. MDMA, MDA, MDE/MDEA and its analogues), diverted/counterfeit prescription drugs containing the aforementioned substances, and other stimulants such as methcathinone and 2C-B.

### 1.1. Amphetamines-group

The amphetamines-group includes both amphetamine and methamphetamine. Although some amphetamines are manufactured for medical purposes, most of the amphetamines that are illegally distributed are manufactured illicitly in clandestine laboratories.

Methamphetamine is the most widely used and manufactured ATS. It is a central nervous system stimulant commonly known as *anfeta*, *meta* and *tiza* in Spanish or as “speed,” “meth” and “chalk” in English. These terms generally refer to the crystalline form of the drug, which can be smoked as “ice” (*hielo*), “crystal” (*cristal*), “crank” (*arranque*), or “glass” (*vidrio*). The substance occurs as a white odourless powder or crystal, with a bitter taste and readily soluble in water and alcohol. Amphetamine -group substances were originally synthesized in the late 19th century and marketed as over-the-counter nasal decongestants beginning

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<sup>11</sup> Bernal, H., ‘Chemical characterization of synthetic drugs used in Bogotá’, Journal of the Integration, General Secretariat of the Andean Community, 2010, 6 (8) 105-133.



in 1932. When used in similar doses, methamphetamine reaches the brain in higher quantities than amphetamine, making this substance a more powerful and longer-lasting central nervous system stimulant.

Both amphetamine and methamphetamine are under international control and included in Schedule II of the 1971 Convention on Psychotropic Substances.

### *1.2. Ecstasy-type substances*

Ecstasy-type substances refer to synthetic substances chemically related to amphetamine-group stimulants, but which differ to some extent in their effects. The most common substance within this group is 3,4-methylenedioxymethamphetamine (MDMA), but analogues such as 3,4-methylenedioxyamphetamine (MDA) or 3,4-methylenedioxy-N-ethylamphetamine (MDEA) are also often found in ecstasy pills.

Ecstasy use is reported to have emerged in the European market in the mid-1980s, after becoming popular in rave parties. Its use within these recreational settings expanded first to the United States and then to the rest of the world. Ecstasy manufacture was first confined to Europe but is reported to have recently expanded to other young and more lucrative consumer markets across the world. Purities of ecstasy in Europe declined in 2008 and 2009, alongside a rise in popularity of NPS, such as 1-benzylpiperazine (BZP), methylenedioxypropylvalerone (MDPV) and, particularly, mephedrone. However, since 2012 the 'ecstasy' market has shown signs of recovery in Europe, probably because of the resurgence of a high MDMA content in ecstasy pills.

At the global level, several pills which are marketed to contain an ecstasy-group substance, do actually contain a variety of substances other than MDMA or drug blends, which may potentially be toxic. According to a study conducted in the Latin American countries, adulterants detected in MDMA tablets on sale in the street included

methamphetamine, caffeine, dextromethorphan (an over the counter cough suppressant), ephedrine (a primary precursor used in methamphetamine manufacture) and cocaine. Like other addictive drugs, MDMA is rarely used alone, and is often used in conjunction with substances such as alcohol and cannabis.

### *1.3. ATS precursors*

ATS can be synthesized from a range of easily accessible precursor chemicals using a variety of methods. Information on 'starting materials' or precursors for illicit ATS manufacture provide an invaluable source for law enforcement authorities in Member States. The changing trends in the use of precursor chemicals as well as the trends in their licit trade and diversion, seizures and trafficking allow an insight into the global nature of the illicit manufacture and, ultimately, the use of ATS.

The main precursors of amphetamines-group substances are ephedrine, norephedrine, pseudoephedrine, 1-phenyl-2-propanone (P-2-P), and phenylacetic acid (a precursor of P-2-P). With regard to precursors of ecstasy-group substances, trends and developments focus on safrole (including safrole-rich oils), isosafrole, piperonal and 3,4-methylenedioxyphenyl-2-propanone (3,4-MDP-2-P), all of which are under international control.

The impact of chemical controls in an increasing number of traditional transit countries is forcing the establishment of new trafficking routes in regions that are less well prepared, as evidenced by increasing reports of diversion and smuggling in countries of those regions.

### *1.4. New psychoactive substances*

In recent years, the market for ATS has been characterized by the appearance of several new substances, which often have chemical and/or pharmacological properties similar to those of substances under international control. Their variety has never been as wide as it is now.

New psychoactive substances are defined as “substances of abuse, either in a pure form or a preparation, that are not controlled by the 1961 Single Convention on Narcotic Drugs or the 1971 Convention on Psychotropic Substances, but which may pose a public health threat”. The term ‘new’

does not necessarily refer to new inventions, several NPS were first synthesized 40 years ago, but to substances that have recently emerged on the market and which have not been scheduled under the above Conventions.

### *Categories of NPS sold in the market*

**Synthetic cannabinoids** – These are cannabinoid receptor agonists which produce effects similar to those of delta-9-tetrahydrocannabinol (THC), the principal psychoactive component in cannabis. Synthetic cannabinoids are often laced onto herbal products and sold as *spice*, *K2*, *Kronic*, etc.

**Synthetic cathinones** – These are analogues/derivatives of the internationally controlled substance cathinone, one of the active components of the khat plant. They generally have stimulant effects and include frequently reported NPS such as mephedrone and MDPV.

**Ketamine and phencyclidine-type substances** – Ketamine is a human and veterinary anaesthetic which acts as a stimulant at low doses and a hallucinogen at high doses. It is one of the most widespread NPS in Asia. Phencyclidine-type substances are another group of NPS that has recently appeared in the market. Phencyclidine (PCP) and ketamine show structural similarity and are classified as arylcycloalkylamines. One of the most frequently reported substances in this group is 4-methoxyphencyclidine (4-MeO-PCP).

**Phenethylamines** – This group contains substances related to amphetamine and methamphetamine, and generally produces stimulant effects. However, modification of these compounds can lead to potent hallucinogens such as *Bromo-Dragonfly*.

**Piperazines** – These substances are frequently sold as ‘ecstasy’ due to their central nervous system stimulant properties. The most commonly reported members of this group are benzylpiperazine (BZP) and mCPP (1-(3-chlorophenyl) piperazine)

**Plant-based substances** – This group includes plants with psychoactive properties. The most frequently reported are:

Kratom (*mitragyna speciosa* Korth), a plant indigenous to South-East Asia that contains the alkaloid mitragynine; a stimulant at low doses and sedative at high doses.

*Salvia divinorum*, a plant indigenous to forest areas in Oaxaca, Mexico, which contains the active ingredient *salvinorin A*, a hallucinogenic substance.

Khat (*Catha edulis*), a plant native to the horn of Africa and the Arabian peninsula. The leaves of the plant are chewed, resulting in the release of the stimulants cathinone and cathine.

**Aminoindanes** – These substances, of which 5,6-methylenedioxy-2-aminoindane (MDAI) is an example, have been sold as NPS for their ability to produce empathogenic and entactogenic effects of serotonin releasing drugs, such as MDMA.

**Tryptamines** – These substances are natural and synthetic alkaloid derivatives of tryptamine and have hallucinogenic properties. 5-Methoxy-N,N-dipropyltryptamine (5-Meo-DPT) is a representative example.

**Other substances** – NPS substances in this category are structurally diverse and do not fit into the categories mentioned above for example, 1,3-dimethylamylamine (DMAA)





## 2. Regional Trends

### *Emerging trends and concerns*

- Data constraints: scarcity of data and low awareness of ATS in several countries remain an obstacle for an accurate assessment of the ATS problem in Latin America
- Non-specified ATS use is reported to be higher than cannabis and cocaine use among high-school students in Ecuador, Honduras and Venezuela. In Brazil, El Salvador, Mexico, Paraguay and Peru the use of non-specified ATS was reported to be higher or comparable to cocaine use among high-school students. Ecstasy-type substances are also widely used among students in the region
- Data received from ten countries<sup>12</sup> point to methamphetamine as the most problematic ATS in demand for treatment in Latin America
- The large majority of ATS seizures in the region corresponded to methamphetamine. Seizures of amphetamine and ecstasy-type substances remain low, an observation that is inconsistent with widespread use of non-specified ATS and ecstasy-type substances among students in the region
- ATS manufacture and precursors trafficking has spread to Central American countries, particularly to Guatemala, Nicaragua and possibly to Honduras
- ATS are trafficked from Mexico to the United States, to Central American countries and to Europe. Information on ATS trafficking from other countries is rather limited
- A range of new psychoactive substances has emerged in the region in recent years

### *Overview of the situation*

ATS are the second most widely used class of drugs worldwide, after cannabis. Affordable and easy to manufacture, ATS are attractive drugs of choice for millions of users in all regions of the world and offer drug trafficking organizations an entry to new markets for illicit drugs. Their manufacture also leads to major global trafficking of chemical precursors used for this purpose. The ATS phenomenon is not new to Latin America. Still, compared to the prevalence of plant-based drugs

such as cocaine or cannabis, ATS prevalence seems to be fairly low among the general population and generally below 1.0 percent (annual prevalence). Within the region, ATS prevalence among the general population is highest in Central American countries particularly in Costa Rica, El Salvador and Panama where ATS annual prevalence is equal or over 1.0 per cent. However, in many cases the latest available data is based on studies undertaken about 10 years ago.<sup>13</sup>



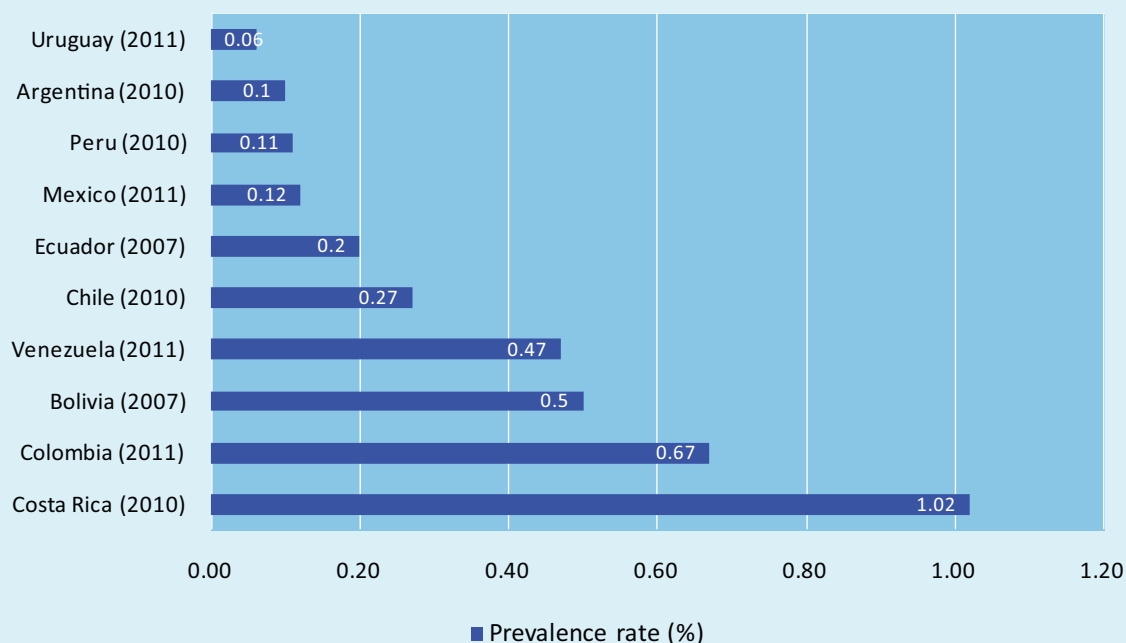
<sup>12</sup> Argentina, Chile, Colombia, Costa Rica, Ecuador, Guatemala, Mexico, Panama, Peru and Venezuela.



<sup>13</sup> Annual prevalence of ATS has been reported to be high in Costa Rica (1.02 per cent in 2010; El Salvador (3.28 per cent in 2005); Guatemala (0.9 per cent in 2005); Honduras (0.84 per cent in 2005); Nicaragua (0.76 per cent in 2003) and Panama (1.2 per cent in 2003) (World Drug Report, 2013).



Figure 1. Latin America: annual prevalence of ATS use among the adult population in selected countries, latest year available



Note: Please note that some surveys have a different age range than 15-64.

Sources: World Drug Report 2013; National survey on drug use, Argentina, 2011; Annual Reports Questionnaire, Peru, 2011.

ATS use among the general population in the region exhibits mostly a stable or declining trend. Some exceptions include Mexico, where annual prevalence increased from 0.02 per cent in 2008 to 0.12 per cent in 2011 and Colombia, where annual prevalence increased slightly from 0.45 per cent in 2008 to 0.67 per cent in 2011.

The use of ATS, although still low among the general population, especially when compared to other regions of the world like Asia, shows unsteady trends among youths in the different countries. Compared to the general population, prevalence rates among young people are considerably high. Recent surveys have shown increasing trends of ATS use among students in Bolivia and Ecuador. In contrast, Argentina has reported a downward trend in lifetime use of non-specified ATS. In a number of countries, the use of non-specified amphetamines and ecstasy-type substances is comparable or even higher than the use of traditional drugs such as cannabis and cocaine.

Data on ATS use in the region remains very limited, mainly in Central American countries where available ATS data dates back to almost ten years ago. In most countries in the region there are no disaggregated data on amphetamine and methamphetamine use, but several countries have provided separated figures for ecstasy use.

This chapter highlights the key emerging trends and challenges related to ATS, their precursors and other emerging drugs in the region, and provides information on the manufacture, trafficking and use of ATS in Latin America.

- ***Data constraints: scarcity of data and low awareness of ATS in several countries remain an obstacle for an accurate assessment of the ATS problem in Latin America***

Analysing ATS markets and developing an evidence base for action against ATS requires



accurate, comparable and timely data. Changes in ATS drug markets - the specific substance and form, their manufacture, trafficking and use-occur very rapidly, and there are clear indications that ATS use is expanding in developing regions of the world, the same regions where data and understanding of the problem are most limited. The less data are available, the greater the reliance upon assumptions and generalization which can lead to inaccurate estimates.

Recently some countries started to differentiate between the use of amphetamines (amphetamine and methamphetamine) and non-medical use of prescription ATS in their surveys. This information will help to understand e.g. how users source their drug of choice, what could be the expected health risks and whether interventions should target illicit trafficking of amphetamines, the diversion of prescription drugs or both. While some progress has been made in the availability of ATS-related data in Latin America, lack of robust information on the illicit manufacture, trafficking and use of ATS remains a significant challenge to Member States and the international community in designing effective policy and programme interventions.

- ***Non-specified ATS use is reported to be higher than cannabis and cocaine use among high-school students in Ecuador, Honduras and Venezuela. In Brazil, El Salvador, Mexico, Paraguay and Peru the use of non-specified ATS was reported to be higher or comparable to cocaine use among high-school students. Ecstasy-type substances are also widely used among students in the region***

Non-specified ATS use was reported to be higher than cannabis and cocaine use among high-school students in Ecuador, Honduras and Venezuela. A survey conducted in 2008 among high-school students in Ecuador showed that lifetime prevalence of non-specified amphetamines use

(7.2 per cent) exceeded those of cannabis (6.4 per cent) and cocaine (2.2 per cent) use. Estimates for Honduras correspond to 2005, when annual prevalence of non-specified ATS use was at 3.0 per cent, a higher percentage than cannabis (1.6 per cent) and cocaine (0.88 per cent) use.<sup>14</sup> In the case of Venezuela, lifetime prevalence of non-specified ATS use was estimated at 2.6 per cent, in a 2009 survey, surpassing cannabis (1.7 per cent), cocaine (0.8 per cent) and ecstasy use (0.5 per cent).<sup>15</sup>

In at least five countries the annual prevalence of non-specified ATS use among high-school students was reported to be higher or comparable to cocaine use. These include Brazil, El Salvador, Mexico, Paraguay and Peru.

In Brazil, the annual prevalence of non-specified amphetamines use among high-school students (1.7 per cent) was significantly lower than among undergraduate students (10.5 per cent), but it was nevertheless comparable to that of cocaine use (1.8 per cent). The annual prevalence of cannabis use was also significantly lower among high-school students (3.7 per cent) than among undergraduate students (13.8 per cent). Among undergraduate students the annual prevalence of non-specified amphetamines use (10.5 per cent) was much higher than that of cocaine use (3 per cent).<sup>16</sup>

In El Salvador, cannabis was the preferred drug of choice among high-school students, with an annual prevalence of 3.5 per cent in 2008. Meanwhile, the use of non-specified amphetamines and cocaine use was reported to be equal with an annual prevalence of 1.1 per cent in 2008.<sup>17</sup> In Mexico, cannabis use among high school students (6.0 per cent, annual prevalence) was higher than non-specified amphetamines use (2.2 per cent, annual prevalence) in 2009, however, the use of non-specified amphetamines was comparable to



<sup>14</sup> DAINLAC.

<sup>15</sup> UNODC, data from annual reports questionnaire and other official sources.

<sup>16</sup> 1st National survey on the use of alcohol, tobacco and other drugs among university students in the 27 Brazilian State capitals, SENAD, Brasilia, 2010.

<sup>17</sup> UNODC, data from Annual Reports Questionnaire and other official sources.



annual prevalence of cocaine use (2.1 per cent). Methamphetamine use was much lower (1.3 per cent, annual prevalence) but it was nevertheless higher than heroin use (0.7 per cent).<sup>18</sup> In 2011, a much lower prevalence of amphetamine use among high-school students was reported by the Mexican Government (0.01 per cent).

In Paraguay, the use of non-specified amphetamines (2.6 per cent, annual prevalence) among high-school students in 2005 was much higher than annual prevalence of cocaine use (0.7 per cent) and slightly lower than cannabis use (3.1 per cent, annual prevalence) for the same year.

In Peru, the annual use of non-specified amphetamines among high-school students fell from 4.8 per cent in 2009 to 1.5 per cent in 2012. However, in 2012 the use of non-specified amphetamines remained higher than annual prevalence of cocaine use (0.9 per cent). For purposes of comparison, annual prevalence of cannabis use among high-school students was 2.2 per cent in 2012.<sup>19</sup>

### *Ecstasy-type substances are also widely used among students in the region*

In general, there has been some progress in the collection of data on ecstasy prevalence in the region. Nevertheless, some countries still provide figures that pertain to ten years earlier and their returns are not uniform. In the Andean countries, ATS, particularly ecstasy-type substances, range among the most commonly used drugs among undergraduate students.

Based on available data provided by some countries in the region, annual prevalence of ecstasy among the general population was fairly low and generally below 0.2 per cent. Some exceptions include

Panama where annual prevalence of the population aged 12-65 years was estimated to be 0.4 per cent in 2003, Colombia (0.28 per cent in 2008) and Uruguay (0.2 per cent in 2011). In Venezuela, ecstasy use among the general population increased from 0.04 per cent in 2005 to 0.12 per cent in 2011. Argentina and Uruguay reported a slight increase of ecstasy use among the general population. In Argentina, it rose from 0.05 per cent in 2010 to 0.1 per cent in 2011 and in Uruguay from 0.1 per cent in 2006 to 0.2 per cent in 2011. Conversely, Chile reported a decline from 0.1 per cent in 2008 to 0.01 per cent in 2010, and in Brazil, ecstasy use fell slightly from 0.2 per cent in 2005 to 0.16 per cent in 2010.

### *Ecstasy use among undergraduate students<sup>20</sup>*

Annual prevalence of ecstasy varied considerably between the five countries reporting on ecstasy use among undergraduate students. While in Brazil, annual prevalence of ecstasy use was at 3.1 per cent<sup>21</sup>, Colombia reported only 0.75 per cent and Peru (0.28 per cent), Ecuador (0.27 per cent) and Bolivia (0.01 per cent) even lower percentages.<sup>22</sup>

Ecstasy use was reported to be generally higher among undergraduate students than among high-school students in countries where data were available. In Brazil, lifetime prevalence of ecstasy use among undergraduates (7.5 per cent)<sup>23</sup> in 2010 was almost six times greater than the prevalence rate for high-school students (1.3 per cent) in 2010.<sup>24</sup> The



<sup>18</sup> Government of the State of Mexico, Health Secretariat, Mexican Institute against Addictions 'Survey of the State of Mexico on Drinking, Smoking and Drugs among Students, 2009', 2010.

<sup>19</sup> 'Executive Report, IV National Study on Prevention and Drug Use in High School Students', Presidency of the Council of Ministers, National Commission for Development and Life without Drugs, Lima, 2012.



<sup>20</sup> There are slight differences in the age groups of the Brazilian and the Andean countries surveys among undergraduate students. Whereas in the Brazilian survey, the majority of the sample (58 per cent) corresponded to students aged 18 to 24 years, in the Andean countries, the majority of the students surveyed (around 50 per cent) corresponded to students aged 19 to 22 years.

<sup>21</sup> 1<sup>st</sup> National survey on the use of alcohol, tobacco and other drugs among university students in the 27 Brazilian State capitals, SENAD, Brasília, 2010.

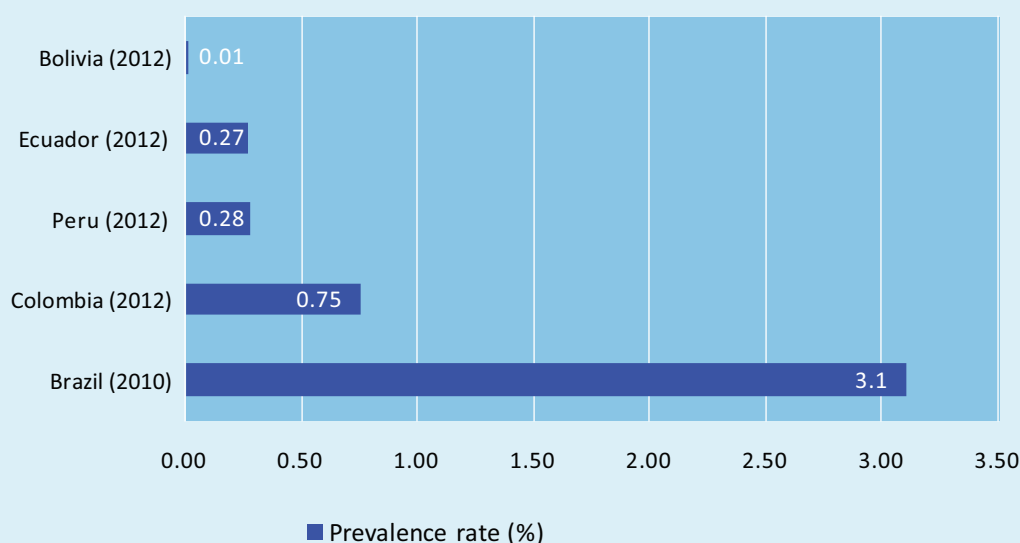
<sup>22</sup> II Andean Epidemiological Study on Drug Consumption in the University Population, Colombia, 2012; II Andean Epidemiological Study on Drug Consumption in the University Population, Peru, 2012.

<sup>23</sup> 1<sup>st</sup> National survey on the use of alcohol, tobacco and other drugs among university students in the 27 Brazilian State capitals, SENAD, Brasília, 2010.

<sup>24</sup> UNODC, data from Annual Reports Questionnaire and other official sources.



Figure 2. Annual prevalence of ecstasy use among undergraduate students in selected countries, latest year available



Sources: First national survey on the use of alcohol, tobacco and other drugs among undergraduate students in the 27 Brazilian capitals, SENAD, 2010; GS-CAN, II Andean epidemiological study on drug use in the undergraduate population, regional report, 2012 (PRADICAN)

use of ecstasy among undergraduate students (3.1 per cent, annual prevalence) in Brazil was also comparable to the use of cocaine (3.0 per cent, annual prevalence) in 2010. Similarly, in Colombia and Ecuador lifetime prevalence of ecstasy use among undergraduate students (3.2 and 1.4 per cent, respectively, in 2012) exceeded lifetime prevalence of ecstasy use among high-school students (1.2 per cent in 2011 and 1.3 per cent in 2008, respectively).<sup>25</sup>

In the Andean countries, annual prevalence of ecstasy use among undergraduate students remained relatively stable between 2009 (0.25 per cent) and 2012 (0.34 per cent).<sup>26</sup> Apart from Brazil, there is no information on ecstasy prevalence from the remaining Latin American countries.

### *Ecstasy use among high-school students*

In recent years, more and more information on ecstasy use among youths has been emerging in Latin America. Unlike surveys on the general population where ecstasy use is often not included, fifteen countries<sup>27</sup> in the region have started to compile data on lifetime prevalence of ecstasy use among high-school students and twelve countries, to a large extent overlapping with the aforementioned 15,<sup>28</sup> reported data on annual prevalence of ecstasy use. In ten of these twelve countries, annual prevalence of ecstasy use remained relatively low and did not exceed 1.0 per cent.

In Peru, ecstasy use among high-school students was reported to be higher than cocaine use. In 2007, the prevalence of ecstasy use (0.6 per cent, annual prevalence) was still lower than cannabis and non-specified amphetamines (1.9 per cent), cocaine (0.9 per cent) and cocaine base paste (0.7 per cent) use. In 2009, ecstasy use rose sharply to 1.4 per cent overtaking both cocaine and cocaine base paste (1

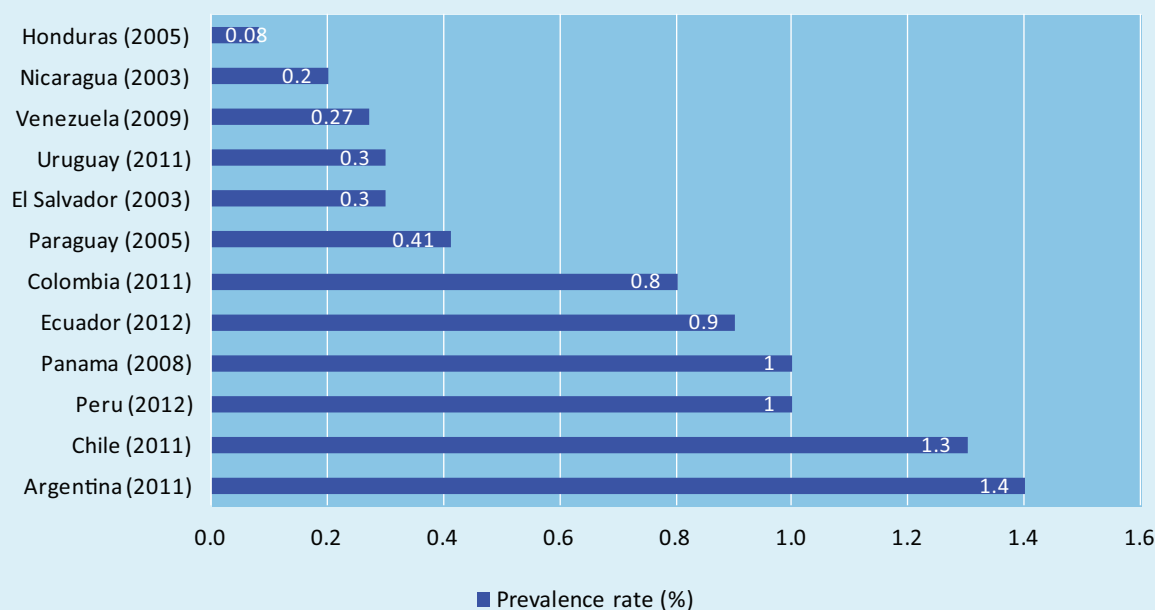
<sup>25</sup> II Andean Epidemiological Study on Drug Consumption in the University Population, Colombia, 2012; II Andean Epidemiological Study on Drug Consumption in the University Population, Ecuador, 2012.

<sup>26</sup> II Andean Epidemiological Study on Drug Consumption in the University Population, Regional report, 2012.

<sup>27</sup> Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, Honduras, Nicaragua, Panama, Paraguay, Peru, El Salvador, Uruguay, Venezuela. Data provided by these countries are limited to specific years and therefore comparisons are drawn on available data for specific countries.

<sup>28</sup> Argentina, Chile, Colombia, Ecuador, El Salvador, Honduras, Nicaragua, Panama, Paraguay, Peru, Uruguay, and Venezuela.

Figure 3. Annual prevalence of ecstasy use among high-school students in selected countries, latest year available



Source: DAINLAC; CICAD; World Drug Report 2013; 'Executive Report, IV National Study on Prevention and Drug Use in High School Students', Presidency of the Council of Ministers, National Commission for Development and Life without Drugs, Lima, 2012; 'Ninth National Study on Drugs in the School Population of Chile, 2011, from 8th year of basic education to 4th year of high-school', Chile 2012.

per cent), although its use remained lower than non-specified amphetamines (4.8 per cent) and cannabis (2.4 per cent). In 2012, ecstasy use among high-school students declined (1.0 per cent, annual prevalence) but remained higher than cocaine use (0.9 per cent, annual prevalence).<sup>29</sup>

A considerable number of countries in the region collected data on lifetime prevalence of ecstasy use among high-school students as opposed to annual prevalence data. Accordingly, there are important differences between the countries with the highest lifetime prevalence of ecstasy use and those with the highest annual prevalence, as shown in Figure 4. Ecuador and Argentina reported the highest lifetime prevalence of ecstasy use among high-school students (2.3 per cent in 2012 and 2.3 per cent in 2011, respectively), followed by Chile (2.2 per cent in 2012), Costa Rica (2.1 per cent in 2009) and

Bolivia (1.6 per cent in 2008). Throughout 2008 and 2011, the lowest lifetime prevalence of ecstasy use was reported by Venezuela (0.5 per cent in 2009), Uruguay (0.5 per cent in 2011) and El Salvador (0.8 per cent in 2008).

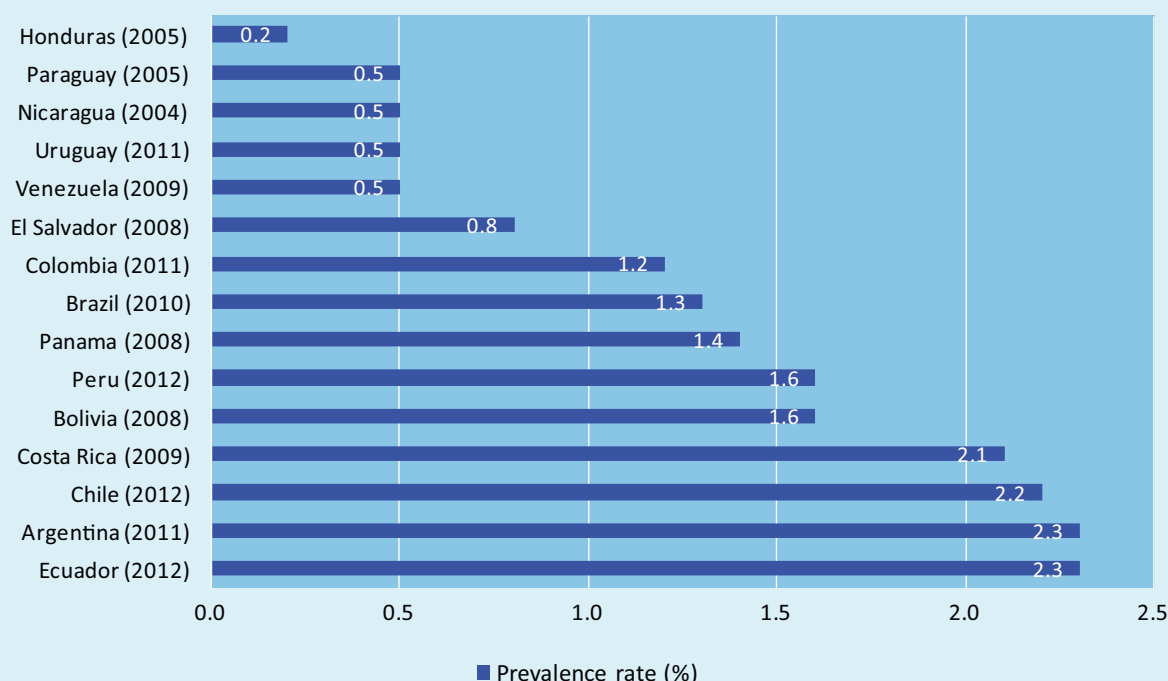
Significant increases in lifetime prevalence of ecstasy use among high-school students were reported by Costa Rica (from 1.1 per cent in 2006 to 2.1 per cent in 2009) and Ecuador (from 1.3 per cent in 2008 to 2.3 per cent in 2012). On the other hand, declines in lifetime use of ecstasy were reported by Argentina (from 2.6 per cent in 2009 to 2.3 per cent in 2011), Chile (from 3.7 per cent in 2009 to 2.2 per cent in 2011), Peru (from 1.9 per cent in 2009 to 1.6 per cent in 2012) and Uruguay (from 1.2 per cent in 2009 to 0.5 per cent in 2011).<sup>30</sup>

<sup>29</sup> 'Executive Report, IV National Study on Prevention and Drug Use in High School Students', Presidency of the Council of Ministers, National Commission for Development and Life without Drugs, Lima, 2012.

<sup>30</sup> UNODC, data from Annual Reports Questionnaire and other official sources; 'Ninth National Study on Drugs in the School Population of Chile, 2011, from 8th year of basic education to 4th year of high-school', Chile 2012; 'Executive Report, IV National Study on Prevention and Drug Use in High School Students', Presidency of the Council of Ministers, National Commission for Development and Life without Drugs, Lima, 2012.



Figure 4. Lifetime prevalence of ecstasy use among high-school students in selected countries, latest year available



Sources: DAINLAC, CICAD, World Drug Report 2013; 'Executive Report, IV National Study on Prevention and Drug Use in High School Students', Presidency of the Council of Ministers, National Commission for Development and Life without Drugs, Lima, 2012; 'Ninth National Study on Drugs in the School Population of Chile, 2011, from 8th year of basic education to 4th year of high-school', Chile 2012; VI Levantamento Nacional sobre o Consumo de Drogas Psicotrópicas entre Estudantes do Ensino Fundamental e Médio das Redes Pública e Privada de Ensino nas 27 Capitais Brasileiras, SENAD, Brasília, 2010.

○ **Data received from ten countries<sup>31</sup> point to methamphetamine as the most problematic ATS in demand for treatment in Latin America**

Data on drug treatment related to ATS in the region is scarce. Only ten countries, namely, Argentina, Chile, Colombia, Costa Rica, Ecuador, Guatemala, Mexico, Panama, Peru and Venezuela, reported data related to ATS use.

While information on prevalence of methamphetamine use is only available for the Andean countries (among undergraduate students in the Plurinational State of Bolivia, Colombia, Ecuador and Peru), Brazil (among high-school students) and Mexico (among high-school

students, restricted to the State of Mexico),<sup>32</sup> treatment data related to methamphetamine use provided by 8 countries<sup>33</sup> indicate that the use of this substance is wider in the region.

Between 2007 and 2012, treatment admissions related to methamphetamine use were reported by eight countries. Methamphetamine accounted for at least 93 per cent of the total ATS admissions reported throughout the period (50,506), followed by amphetamine (2,725) and ecstasy-

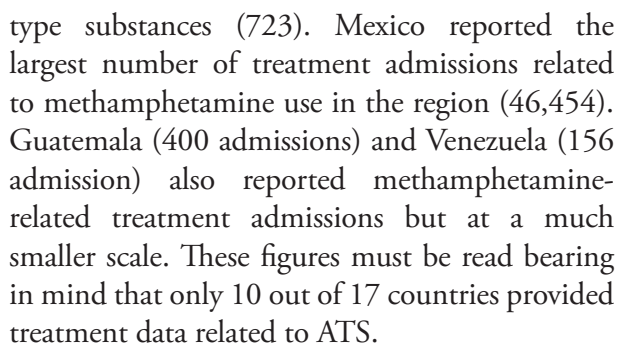


<sup>31</sup> Argentina, Chile, Colombia, Costa Rica, Ecuador, Guatemala, Mexico, Panama, Peru and Venezuela.



<sup>32</sup> Lifetime prevalence of methamphetamine among undergraduate students in the Andean countries was 0.2 per cent in 2009 and 0.4 in 2012 (II Andean Epidemiological Study on Drug Consumption in the University Population, Regional report, 2012); In Brazil, same prevalence among high-school students was 0.3 per cent in 2010 (VI Levantamento Nacional sobre o Consumo de Drogas Psicotrópicas entre Estudantes do Ensino Fundamental e Médio da Rede Pública e Privada de Ensino nas 27 Capitais Brasileiras, SENAD, 2010); and in Mexico, 2.9 per cent among high-school students in 2009 (Encuesta del Estado de México sobre el Consumo de Alcohol, Tabaco y Drogas en Estudiantes, 2009).

<sup>33</sup> Argentina, Chile, Colombia, Guatemala, Mexico, Panama, Peru and Venezuela.



The highest number of treatment admissions related to methamphetamine use in the region was reported in 2010 (11,634), mainly by Mexico (11,604) and Venezuela (29).<sup>34</sup> In 2011, Chile (2), Mexico (7,668)<sup>35</sup> and Venezuela (37) continued to report treatment admissions related to methamphetamine use, but new admissions were also reported by Panama (2)<sup>36</sup> and Peru (1). In 2012, Mexico reported a significant decrease in the number of admissions related to methamphetamine use (from 7,668 in 2011 to 781 in 2012)<sup>37</sup> but in Venezuela they almost doubled (from 37 in 2011 to 64 in 2012) and Colombia reported new admissions for the first time (38 admissions).<sup>38</sup>

Treatment admissions related to methamphetamine use in Mexico have fluctuated considerably during the period 2007-2011, with an average of 7,000 admissions per year. The figures peaked in 2007 and 2011, when the number of admissions exceeded 10,000 but in 2012 less than 1,000 were reported (781). Compared with treatment admissions related to other drugs used in the country, in 2010 cannabis was still by far the most frequent drug of use among patients admitted for drug treatment (33,279) but admissions related to methamphetamine use (11,604) accounted for nearly half of those related to cocaine use (26,425). In 2011, admissions related to methamphetamine use (7,668) doubled the number of admissions related to cocaine use (3,543), becoming the second highest drug in demand for treatment in the corresponding year, after cannabis (9,788). In 2012, cocaine related admissions (854) again overtook methamphetamine admissions (781) but only by a comparatively small margin.<sup>39</sup>

In addition to Mexico, Guatemala reported an important number of admissions related to methamphetamine use in 2007 (400) but no figures have been recorded since then. Venezuela is the third

Table 1. Number of admissions related to ATS use in selected countries, 2010

Drug type	Amphetamine	Ecstasy-type substances	Methamphetamine	Total
Argentina	43	74		117
Chile	12		1	13
Mexico*	1,137		11,604	12,741
Panama		7		7
Peru		1		1
Venezuela	5	20	29	54
ATS (total)*	1,197	102	11,634	12,933

Sources: DAINLAC, OAD/SEDRONAR; SENDA, Chilean Drug Observatory; National Centre for the Prevention and Control of Addiction, CENADIC; CONAPRED/MINSA; 2009: Survey of 49 Treatment Centres, Venezuela; 2010: Survey of 20 Treatment Centres, Venezuela; \*UNODC and other official sources. Data corresponding to the reporting year.

<sup>34</sup> Survey of 49 Treatment Centres, Venezuela; 2010: Survey of 20 Treatment Centres, Venezuela.

<sup>35</sup> UNODC, Annual Reports Questionnaire. Data corresponds to the reporting year.

<sup>36</sup> DAINLAC, CONAPRED/MINSA.

<sup>37</sup> UNODC, Annual Reports Questionnaire. Data corresponds to the reporting year.

<sup>38</sup> UNODC, Annual Reports Questionnaire. Data corresponds to the reporting year.

<sup>39</sup> UNODC, Annual Reports Questionnaire. Data corresponds to the reporting year.

country in the region that reported the highest number of admissions related to methamphetamine use (156) from 2008 to 2012. While there were some fluctuations throughout the period, the number of treatment admissions related to methamphetamine use has increased continuously since 2009 (3), with the highest number reported in 2012 (64).

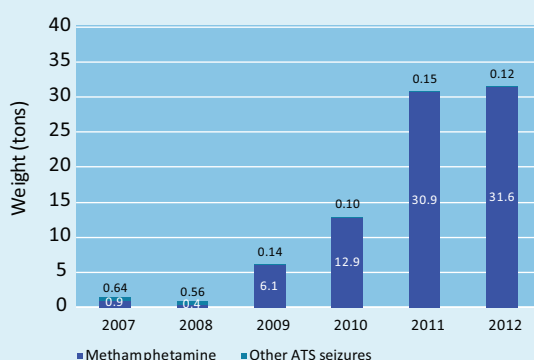
Available data shows that amphetamine was the second most frequent ATS in demand for drug treatment in the region, after methamphetamine. From 2007 and 2012, Mexico reported the highest number of admissions related to amphetamine use (1,829), followed by Guatemala (405), Costa Rica (204), Chile (105) and Argentina (99).

- *The large majority of ATS seizures in the region corresponded to methamphetamine. Seizures of amphetamine and ecstasy-type substances remain low, an observation that is inconsistent with widespread use of non-specified ATS and ecstasy-type substances among students in the region*

In Latin America, ATS are present on the market of traditional drugs of use in the region such as cannabis and cocaine. Trafficking in ATS remains to a large extent intra-regional, as manufacture can and does occur close to consumer markets. The popularity of ATS is also a result of a market potential with continuously high profits and low risks with little initial investment. Additionally, large profits are not only made from the sale of the drug itself, but increasingly from illicit sourcing of the key precursor chemicals used in the illicit manufacture of ATS. Most countries in the region, except for Mexico, reported low ATS seizures between 2007 and 2012, in spite of large seizures of ATS precursors in a number of countries, and significant use of some ATS substances among some subgroups of the population in selected countries. Therefore, total ATS seizure data presented here, might not reflect the real extent of ATS manufacturing and trafficking in the Latin American region.

Seizures of ATS in Latin America increased chiefly between 2008 and 2011 and then stabilised in 2012 at a very high level. The overall increase in ATS seizures is mainly due to significant increases of methamphetamine seizures, which increased fivefold between 2009 and 2012 whereas other ATS seizures remained at about the same level.

Figure 5. Methamphetamine and other ATS seizures in Latin America, 2007-2012

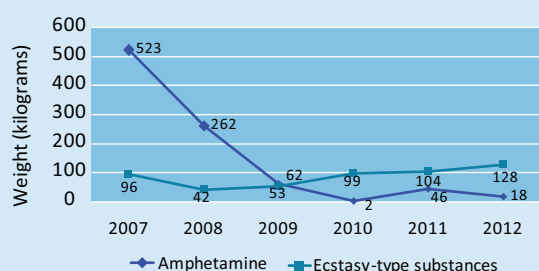


Source: UNODC, data from Annual Reports Questionnaire and other official sources.  
\* Including seized amphetamine, "ecstasy"-type substances, non-specified ATS and other stimulants.

Mexico accounted for the largest amount of methamphetamine seized in the region, reporting more than a twofold increase from about 13 tons in 2010 to almost 32 tons in 2012. Other countries reporting increases in methamphetamine seizures included Brazil, where seizures rose from 1.5 kg in 2010 to 12 kg in 2011 and Argentina where seizures rose from 0.02 kg in 2010 to 17 kg in 2012.

Large amounts of methamphetamine precursors seized in other countries in the region, notably in Central American countries, are in stark contrast with the low amount of methamphetamine seizures reported so far. For instance, Guatemala and Honduras did not report any ATS seizures during the period 2007 and 2012, but multi-ton seizures of pseudoephedrine, a methamphetamine precursor, were seized in both countries. Similarly, El Salvador and Panama have reported multi-ton seizures of amphetamine/methamphetamine precursors but seizures of amphetamine and

Figure 6. Amphetamine and ecstasy-type stimulants seizures in Latin America, 2007-2012



Source: UNODC, data from Annual Reports Questionnaire and other official sources.

methamphetamine did not exceed 1 kg in the same time period.

Between 2007 and 2012, amphetamine seizures in Latin America decreased considerably and have remained at a comparatively low level since 2009. While ecstasy seizures reported in the region were low compared to methamphetamine, they overtook amphetamine seizures in 2010 and remained at a higher level since. Between 2010 and 2012, seizures of ecstasy-type substances in the region increased slightly from 99 kg seized in 2010 to 128 kg in 2012. The most significant increase took place in Brazil where seizures rose from 0.7 kg in 2010 to 92 kg in 2012. Between 2010 and 2011, ecstasy seizures also increased in Uruguay from 0.01 kg in 2010 to 16 kg in 2011, and in Colombia, they almost doubled, from 6 kg in 2009 to 11 kg in 2012. In Argentina, seizures of ecstasy-type substances were also high, in comparison with other Latin American countries and have fluctuated throughout the period. They declined from 37 kg in 2009 to 26 kg in 2010 and to 5 kg in 2011, but in 2012 they increased again to 25 kg. Peru also reported an increase in ecstasy seizures from 0.03 kg. in 2009 to 68 kg in 2010, an increase that is reportedly linked to the dismantling of an international organized crime group operating from Lima and Panama, with connections in Canada, Ecuador and Spain.

Conversely, seizures of ecstasy-type stimulants

in other countries in the region were reported to be generally low throughout 2008-2012. Chile, Costa Rica, Ecuador, Panama and Venezuela reported seizures below 1 kg since 2008, with the exception of 2011, when Costa Rica reported a seizure of more than 5 kg. Unlike seizures of methamphetamine and amphetamine, Mexico reported very low seizures of ecstasy-type substances throughout the period, although a large quantity (2,371 litres) of safrole -one of the main precursors of MDMA- was seized in the country, in 2011.

From 2007 to 2012, seizures of non-specified ATS were reported by Brazil, Chile, Colombia, Guatemala, Nicaragua and Venezuela. The most significant quantities were reported by Nicaragua (262 kg) in 2008, Colombia (26 kg) in 2009 and Chile (17 kg) in 2007. In Chile, the highest number of ATS seizures corresponded to the category of non-specified amphetamines. However, since 2007, the country has not reported additional seizures of non-specified ATS, possibly due to the classification of these substances within the more general category of “pharmaceuticals”. In 2008, 84,619 units of “pharmaceuticals” were seized in Chile, increasing to 393,064 units in 2010.<sup>40</sup> However, it is not known which portion of the amount seized corresponded to non-specified ATS.

### ○ *ATS manufacture and precursors trafficking has spread to Central American countries, particularly to Guatemala, Nicaragua and possibly to Honduras*

Pseudoephedrine and ephedrine – both of which are used in illicit manufacture methamphetamine - are some of the most frequently traded substances and significant diversion of those substances from the licit market, often in the form of pharmaceutical preparations, is frequently reported. Shortages in the availability of these

<sup>40</sup> DAINLAC; SENDA, Chilean Drug Observatory.





precursor chemicals in the illicit market have not hindered the manufacture of methamphetamine. Replacements are easily found, often facilitated by readily available information on the internet.

In Latin America, the reliance upon these two 'traditional' precursors for ATS manufacture is reportedly decreasing, as other methods are increasingly being used. For instance, in Mexico and Central America, there has been a significant shift away from the use of pseudoephedrine and ephedrine towards the use of 1-phenyl-2-propanone (P-2-P) based methods, mainly involving the use of phenylacetic acid and its non-scheduled derivatives used in the illicit manufacture of methamphetamine. Accordingly, Mexico reported a significant decrease in the seizures of ephedrine and pseudoephedrine from 9 tons in 2010 to 315 kg in 2011. Similarly, Guatemala reported a decline in the seizures of those precursors in 2011. Significant amounts of ethyl phenylacetate – a non-scheduled derivative of phenylacetic acid – have been seized in Mexico (369 tons and 117,000 litres in 2011), El Salvador (157 tons), Guatemala and Nicaragua.<sup>41</sup>

Safrole and safrole-rich-oils are used for the illicit manufacture of ecstasy-type substances. After declining for several years, global seizures of those precursor chemicals rebounded in 2011, as several countries, including Mexico (2,371 litres), reported seizures.

ATS manufacture in the region has been reported from countries in Central and South America (Argentina, Bolivia, Brazil, Guatemala, Mexico and Nicaragua). Manufacture of methamphetamine has continued to take place in Mexico in recent years, where the number of dismantled laboratories rose more than 200 per cent from 50 in 2008 to 187 in 2009.<sup>42</sup> In 2011, the number decreased to 159 laboratories but a new increase was registered in 2012 to 259 laboratories. Large amounts of methamphetamine precursors (more than 5 tons

of ephedrine) were seized in 2010 but ephedrine seizures reported by Mexico fell to 2 kg in 2011, a fact that supports indications of the shift away from the use of ephedrine and pseudoephedrine towards the use of P-2-P based methods and non-scheduled derivatives used in the illicit manufacture of methamphetamine.

There are indications of a shift in ATS manufacturing operations from Mexico to Central American countries, particularly to Guatemala, Nicaragua and possibly to Honduras. Between January and September 2012, at least thirteen laboratories for the illicit manufacture of methamphetamine were dismantled in Guatemala.<sup>43</sup> In 2013, a laboratory for the manufacture of amphetamines was dismantled in a border city between Guatemala and Mexico, and more than 1,000 litres of P-2-P were seized, confirming again the change from traditional ATS precursors to P-2-P based methods.<sup>44</sup> Seizures of P-2-P (200 litres) were also reported by Ecuador in 2011.<sup>45</sup> In 2010, Nicaraguan authorities dismantled a large-scale methamphetamine laboratory and in January 2012, 195 tons of methylamine (an essential chemical that, together with phenylacetic acid, is required for the illicit manufacture of methamphetamine) were seized in Mexico, marking the first attempt to traffic precursor chemicals from Mexico to Nicaragua and a repeated attempt of trafficking to Guatemala.<sup>46</sup> El Salvador has not reported ATS manufacture and seizures reported are lower than 1 kg but it continues to be used as a transit country for the trafficking of precursors to and from Mexico and to other Central American countries. El Salvador seized more than 100 kg of pseudoephedrine in 2009 and over 19 tons of ephedrine in 2010.

Between 2007 and 2012, a total of 114 tons of combined ephedrine and pseudoephedrine seizures were reported by 13 Latin American



<sup>41</sup> INCB, Precursors and chemicals frequently used in the illicit manufacture of narcotic drugs and psychotropic substances, 2012.

<sup>42</sup> MEM/CICAD/OAS.



<sup>43</sup> INCB, Precursors and chemicals frequently used in the illicit manufacture of narcotic drugs and psychotropic substances, 2012.

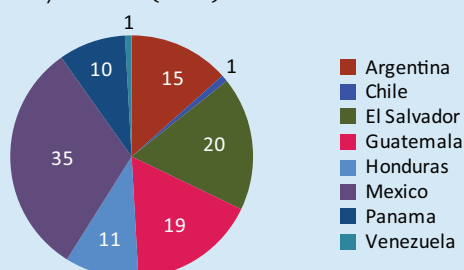
<sup>44</sup> UNODC, Global SMART Updates Vol. 9 and 10, March and September 2013.

<sup>45</sup> INCB, Precursors and chemicals frequently used in the illicit manufacture of narcotic drugs and psychotropic substances, 2012.

<sup>46</sup> UNODC, World Drug Report 2013.

countries,<sup>47</sup> with eight countries reporting seizures over 1 ton.<sup>48</sup> From a total of 53.7 tons of pseudoephedrine seized in the region between 2007 and 2012, Mexico accounted for the majority of seizures (22 tons), followed by Guatemala (18 tons) and Honduras (11 tons). In 2012, seizures of pseudoephedrine were only reported by Honduras (10 tons).

Figure 7. Combined ephedrine and pseudoephedrine seizures in Latin America, 2007-2012<sup>49</sup> (tons)



Source: INCB; UNODC Annual Reports Questionnaire and other official sources.

Ephedrine seizures amounted to 60 tons between 2007 and 2012. The highest amounts were reported by El Salvador (20 tons, in 2010), Argentina (15 tons, seized mostly between 2007 and 2009), Mexico (13 tons) and Panama (10 tons). Other countries reporting ephedrine seizures include Guatemala (121 kg), Chile (1 ton), Venezuela (752 kg) and Paraguay (137 kg).

Other Central American countries that have reported seizures of ephedrine and pseudoephedrine include Nicaragua, which reported seizures of pseudoephedrine only in 2009, with a total of 372 kg. In the Southern Cone, an increase in seizures of methamphetamine precursors was reported by Argentina, where seizures of ephedrine rose from 4 tons in 2008 to 10 tons in 2009. In 2011, Argentina reported the first seizure of pseudoephedrine (250 kg), since 2007.

- *ATS are trafficked from Mexico to the United States, to Central American countries and to Europe. Information on ATS trafficking from other countries is rather limited*

The main flow of methamphetamine trafficking occurs from Mexico to the United States. Organized criminal groups in Mexico have expanded their methamphetamine distribution networks and consolidated many of the previously independent methamphetamine traffickers. They have also developed methamphetamine trafficking routes into Europe. More recently, the continuous dismantling of ATS laboratories in Guatemala has indicated that there could be a shift of ATS manufacturing operations from Mexico to Guatemala and to other Central American countries. According to Government information, ATS seizures in Chile have pointed to Spain as an origin country of methamphetamine and of at least half of the ecstasy trafficked into the country. Argentina has also been named, although to a lesser extent, as a source country of ecstasy destined to Chile.<sup>50</sup>

ATS trafficking routes within the Latin American region go from Mexico to the USA and from Mexico to El Salvador. Guatemala has often been reported as a transit country for the trafficking of methamphetamine and ecstasy, from Mexico to El Salvador, but recent reports point to Guatemala as an increasing hub for methamphetamine manufacture<sup>51</sup> and a source country for methamphetamine trafficked into Mexico and destined to Europe. Recent information also points to Colombia as a potential source for ephedrine and pseudoephedrine trafficked onwards to Central America for methamphetamine manufacturing.<sup>52</sup>

<sup>47</sup> Argentina, Brazil, Chile, Colombia, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay and Venezuela.

<sup>48</sup> Argentina, Chile, El Salvador, Guatemala, Honduras, Mexico, Panama and Venezuela.

<sup>49</sup> Countries reporting combined seizures of ephedrine and pseudoephedrine below 1 ton are not included here.

<sup>50</sup> UNODC, Annual Reports Questionnaire, 2012.

<sup>51</sup> At least 13 laboratories illicitly manufacturing methamphetamine were reported to have been dismantled between January and September 2012. INCB, Precursors and chemicals frequently used in the illicit manufacture of narcotic drugs and psychotropic substances, 2012.

<sup>52</sup> Official communication from the Government of Colombia, Policía Nacional de Colombia/Dirección Antinarcóticos, November 2013.

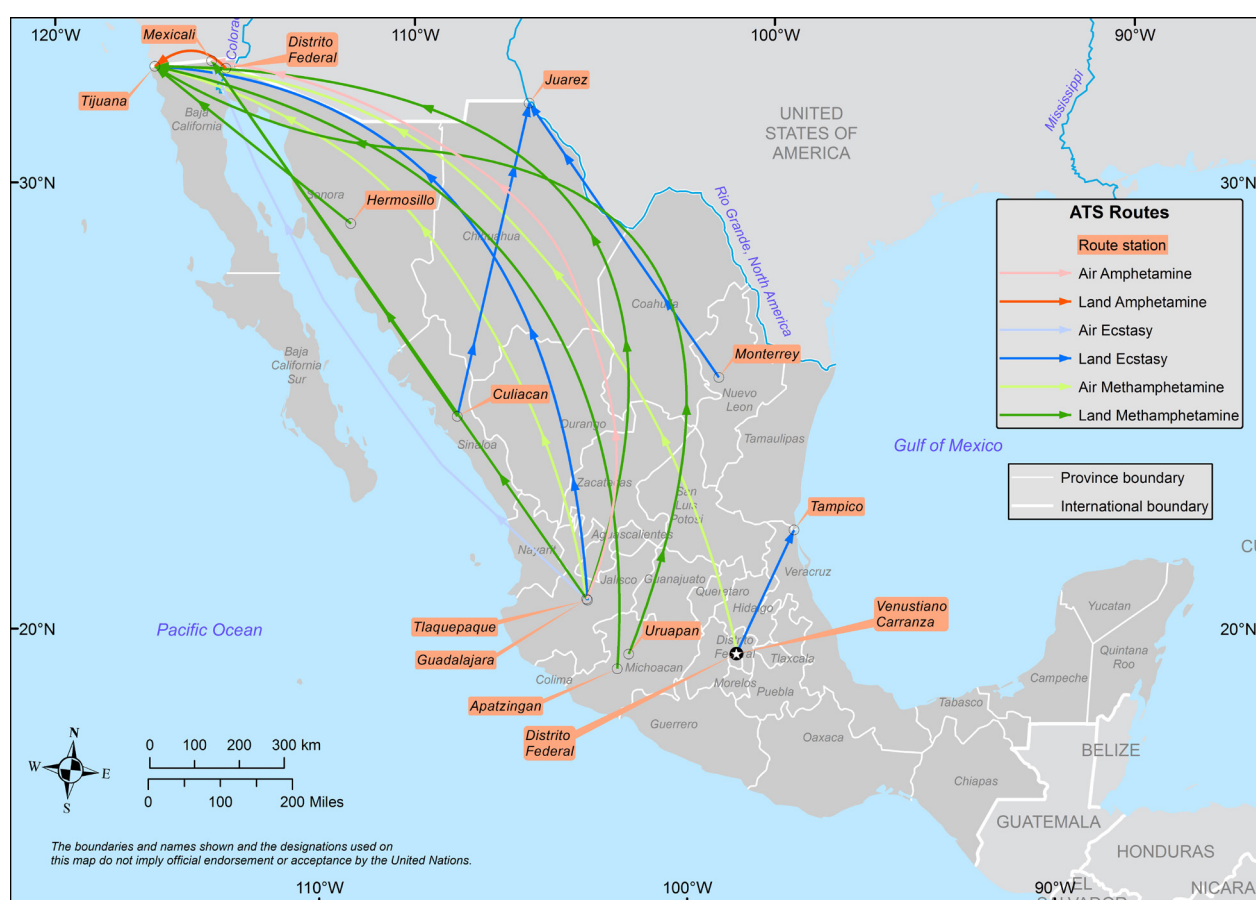


Out of the 17 countries that provided information for this report, Mexico was the only country that submitted information on ATS trafficking routes and therefore the information presented here is limited to this country. In Mexico, methamphetamine is trafficked by air from Guadalajara and Venustiano Carranza (western-pacific area of Mexico) to Baja California (northernmost and westernmost State of Mexico). Overland routes in Mexico start at various locations and Baja California is named as the most common destination. The flow of methamphetamine trafficking from Mexico into the United States across the border has also been increasing. In 2013, San Ysidro port of entry (southwest United States) accounted for 40 per cent of methamphetamine seizures made at the US-Mexico southwest border with over 2 tons seized. Between October 2012 and March 2013, more than 1 ton of methamphetamine was

seized in San Ysidro and 605 kg at Otay Mesa, both located in the county of San Diego, where 58 per cent of the total 3 tons of methamphetamine seized at the US-Mexico border crossings, was confiscated. Most of the remaining amount was seized in Laredo, Texas; Nogales; and Calexico, California.<sup>53</sup>

Air couriers are also used to traffic amphetamine out of Mexico. Guadalajara is reported to be a starting point whereas the overland route starts in Mexico City. Baja California is indicated as a common destination. In the case of ecstasy-type substances, air and overland routes for ecstasy-type substances depart from several points of origin in Mexico and are destined to Chihuahua (northern Mexico), Tamaulipas (north-eastern Mexico) and Baja California. Ecstasy-type substances are trafficked by air from Mexico, through Guatemala, into El Salvador.

Map 1. ATS trafficking routes in Mexico



Source: DAINLAC, Office of the Prosecutor General of the Republic of Mexico.

<sup>53</sup> UNODC, Global SMART Updates Vol. 10, September 2013.



Table 2. ATS trafficking routes in Mexico, by drug and means of transportation

DRUGS	ATS trafficking routes	
	Air	Overland
Amphetamine	Guadalajara, Jalisco – Mexicali, Baja California	Distrito Federal – Tijuana, Baja California
Ecstasy	Guadalajara, Jalisco – Mexicali, Baja California	Culiacán, Sinaloa – Juárez, Chihuahua
		Distrito Federal – Tampico, Tamaulipas
		Tlaquepaque, Jalisco – Tijuana, Baja California
		Monterrey, Nuevo León – Juárez, Chihuahua
Methamphetamine	Guadalajara, Jalisco – Tijuana, Baja California	Distrito Federal, México – Tijuana, Baja California
	Venustiano Carranza, Distrito Federal – Tijuana, Baja California	Guadalajara, Jalisco – Mexicali y Tijuana, Baja California
		Culiacán, Sinaloa – Mexicali, Baja California
		Hermosillo, Sonora, Tijuana, Baja California
		Apatzingán y Uruapan, Michoacán – Tijuana, Baja California.

Source: DAINLAC, Office of the Prosecutor General of the Republic of Mexico.

○ ***A range of new psychoactive substances has emerged in the region in recent years***

According to the 2013 UNODC report “The challenge of new psychoactive substances”, NPS have become a global phenomenon and all regions of the world have been affected by it. In a survey among Governments and drug analysis laboratories in 2012, 70 out of 80 countries and territories responding (88 per cent) reported the emergence of NPS, including nine Latin American countries.<sup>54</sup>

A total of 251 different NPS were reported to UNODC by 40 countries and territories up to mid-2012, more than the 234 substances scheduled under the 1961 and 1971 Conventions. By 31 August 2013, the number of substances reported to UNODC increased to 354<sup>55</sup> (data was collected through updated surveys submitted by Member States and submissions from Laborato-

ries participating in the International Collaborative Exercises (ICE) programme).

Most of the substances reported globally between 2009 and mid-2012 were synthetic cannabinoids (60 substances), followed by phenethylamines (58 substances) and synthetic cathinones (44 substances). In Latin America, synthetic cannabinoids, synthetic cathinones, ketamine and plant-based substances were reported to have emerged by mid-2012.


In Mexico, synthetic cannabinoids and synthetic cathinones were first identified before 2008. Synthetic cannabinoids appeared in Chile in 2009 and synthetic cathinones in Brazil in 2011. Ketamine first appeared in Ecuador and Panama in 2011. Colombia and Costa Rica have also reported the emergence of ketamine.

Mexico and Brazil reported the emergence of plant-based substances before 2008 and Chile and Costa Rica in 2012. Since mid-2012, Colombia has also reported the emergence of plant-based substances, including *salvia divinorum* and ayaahuasca. Seizures of more of than 1 kg of plant-



<sup>54</sup> Argentina, Brazil, Chile, Colombia, Costa Rica, Ecuador, Mexico, Panama and Uruguay.

<sup>55</sup> It should be noted that the total of 354 is provisional as a number of substances are yet to be verified.



based substances for each year were reported by Panama from 2009 to 2012. *Salvia divinorum* (of the mint family Lamiaceae) originates from the Latin America region. It is a psychoactive plant indigenous to forest areas in Oaxaca (Mexico) that was traditionally used by the Mazatec Indians for religious practices and medical purposes, although there is no approved medicinal use for the plant or its active ingredient salvinorin A.

After mid-2012, some of the new categories of NPS that have emerged in the Latin American region include phenethylamines and piperazines. In June 2013, Colombia, through its Early Warning System, reported the appearance of 25B-NBOMe and/or 25C-NBOMe, a synthetic phenethylamine reported to have hallucinogenic effects similar to LSD. Costa Rica reported the appearance of piperazines such as BZP and *m*CPP, in 2013 and Chile seized a consignment of 25I-NBOMe, originating in Spain.



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UNODC would like to specifically recognize the following funding partners for their contribution to the Global SMART Programme.

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