

SIXTY-THIRD REGULAR SESSION
April 25-27, 2018
México D.F., México

OEA/Ser.L/XIV.2.63
CICAD/doc.2372/18
20 April 2018
Original: Español

NEW CHALLENGES: SYNTHETIC DRUGS AND NEW PSYCHOACTIVE SUBSTANCES

NEW CHALLENGES: SYNTHETIC DRUGS AND NEW PSYCHOACTIVE SUBSTANCES

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SIXTY-THIRD REGULAR SESSION OF THE INTER-AMERICAN DRUG ABUSE CONTROL COMMISSION (CICAD)

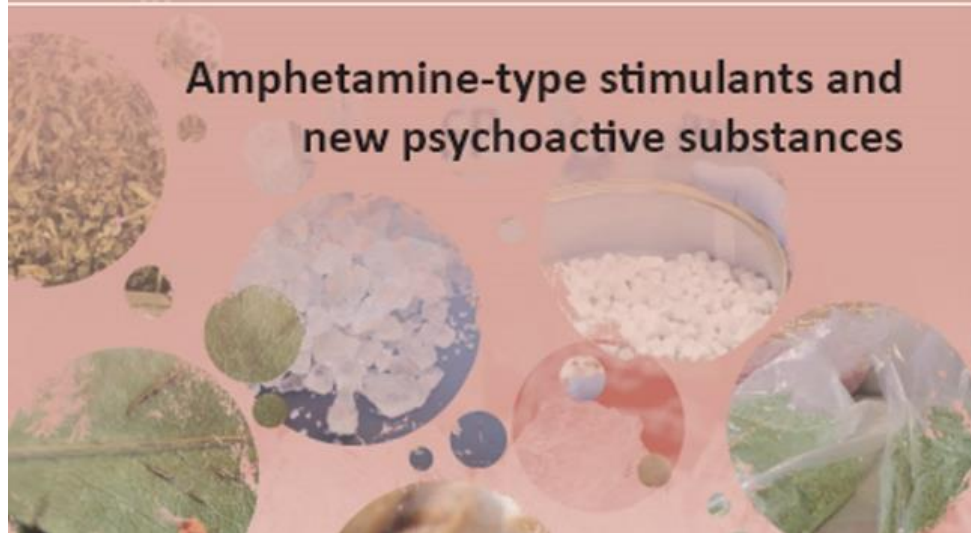
April 25-27, 2018

Mexico City, Mexico



Global Synthetic Drugs Assessment

Amphetamine-type stimulants and
new psychoactive substances



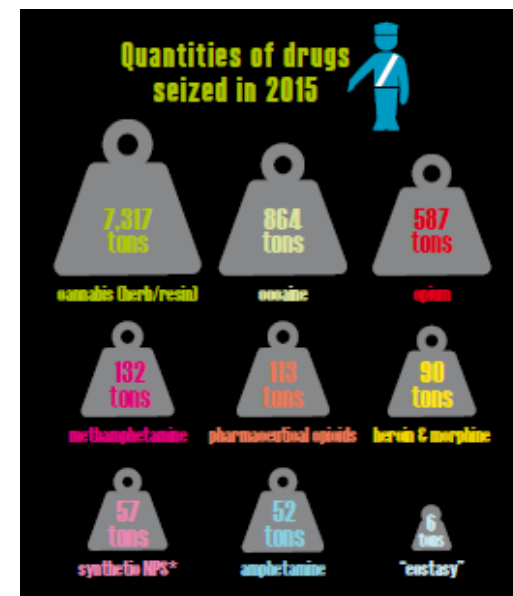
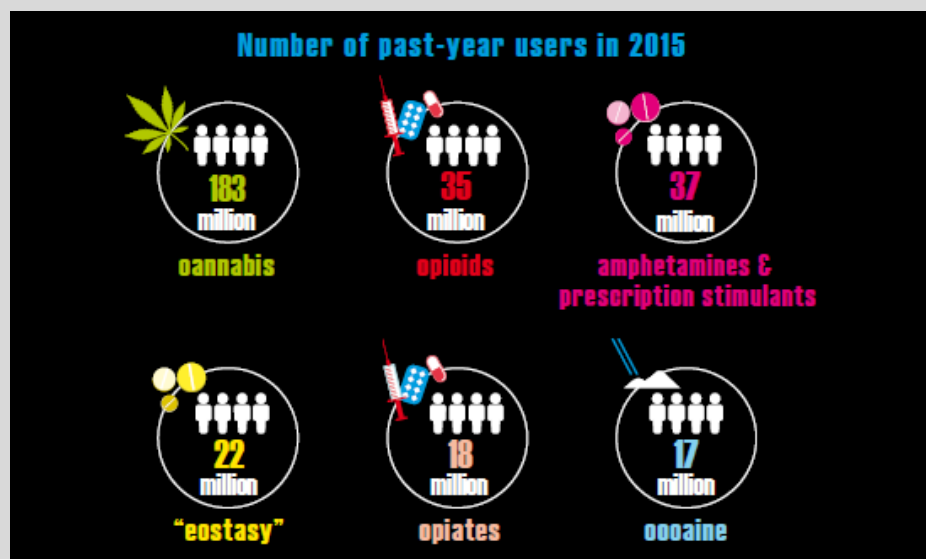
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- *Drugs and synthetic drugs, problem contextualization*
- *Controlled prescription drugs (CPD)*
- *Purchase / sale of drugs through the darknet*
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- *Legislation on NPS*
- *Precursors for production of synthetic drugs / NPS*
- *Synthetic drugs, NPS and CPD – Future challenges*

WORLD DRUG REPORT 2017

Source: UNODC

- Between 2009 and 2017, 111 countries and territories reported an accrued amount of 803 NPS globally – Source: UNODC EWA on NPS



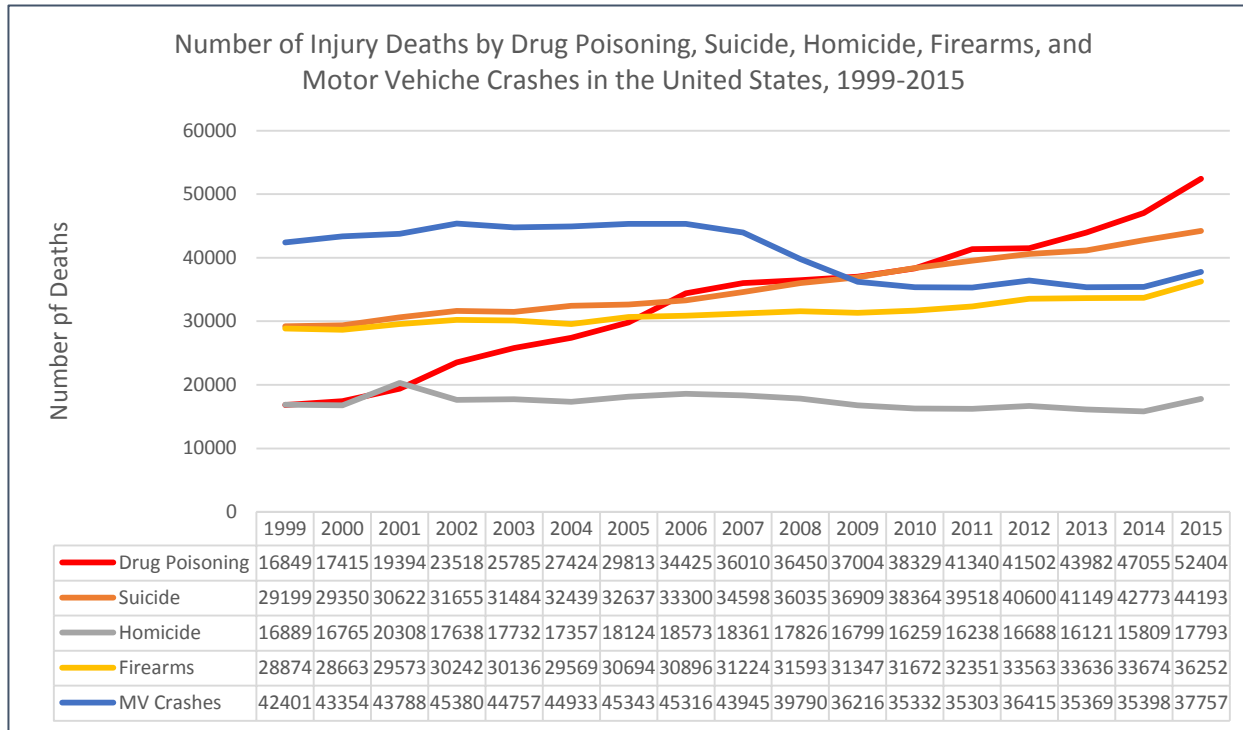


Blurred
boundaries:
Synthetic Drugs,
New
psychoactive
substances (NPS)
and
Controlled
prescription
drugs (CPD)

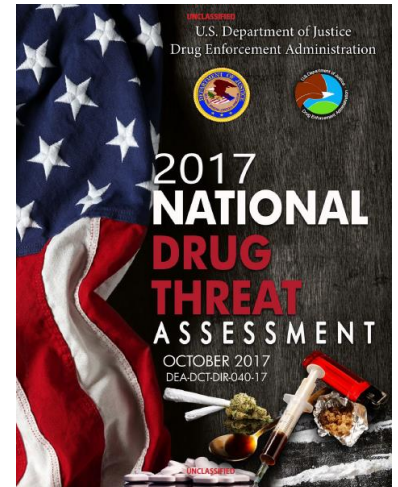
Sometimes classifications turn confusing: CPD and NPS

The emergence of products from prescription drugs, categorized as new psychoactive substances (NPS), especially fentanyl analogues, has been associated to the rise of overdoses, even fatal ones, among opioid users.

In the last years some new synthetic opioids have been related to the increase of serious adverse events and deaths.



Source: Centers for Disease Control Prevention



In the United States, since 2009 people every year have died in larger numbers from drug poisoning use than those from car accidents or violence:

- tripling from 16,849 deaths in 1999 to 52,404 in 2015.

FENTANYL and its analogues

- **Fentanyl** was first synthesized in 1959 and was placed under international control as a Schedule 1 substance in 1964 under the Single Convention on Narcotic Drugs of 1961.
- It is the most powerful opioid available to medical use in humans with a power 100 times greater than that of morphine.
- **Carfentanyl** is considered 10,000 times more powerful than morphine. It is for veterinary use in large animals only. Medical use in humans is not approved. It was first synthesized in 1974 and remains the most powerful opioid commercially available worldwide.
- The non medical use of fentanyl and its analogues may lead to serious health consequences. **Tolerance and dependence develop very quickly** and can reach extreme levels.
- Every event of non medical use entails **high risk of overdose and death from respiratory depression**, a common secondary effect of opioids.

GLOBAL SMART UPDATE

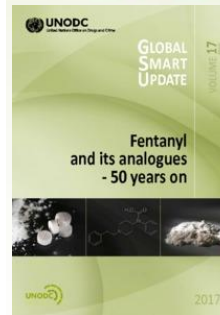
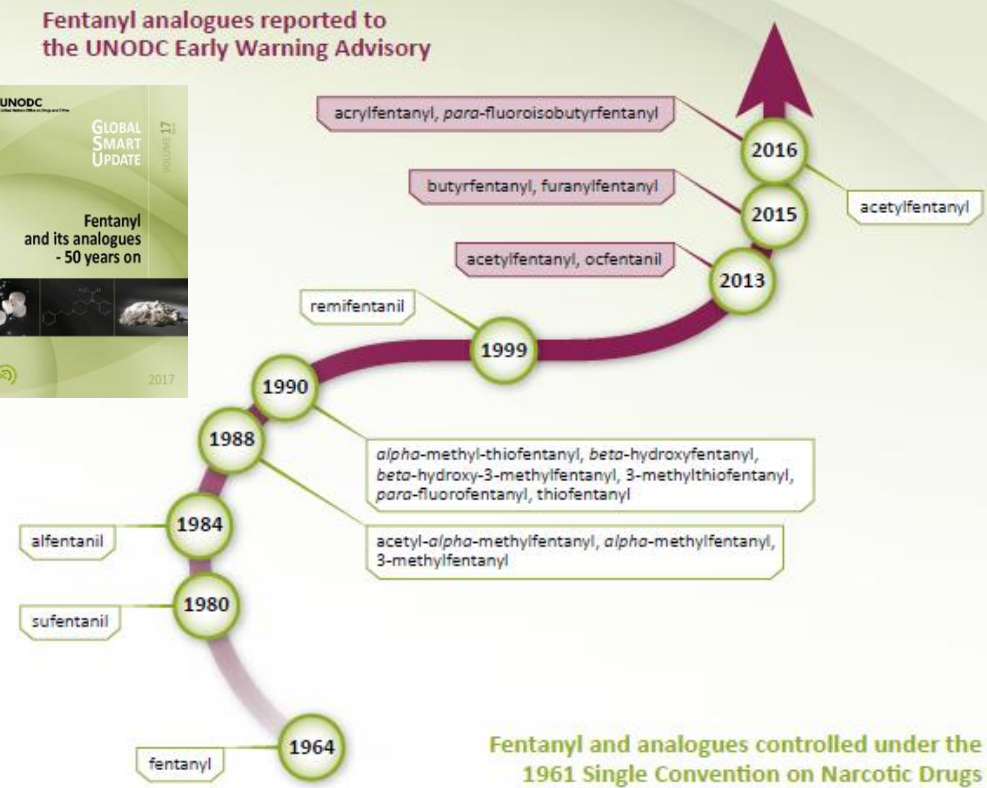


Figure 1: International control of fentanyl and its analogues, 1964-2016



- In the **United States** the CDC reported an increase of 79% in **deaths from synthetic opioids**, from 5,343 in 2014 to **9,580 in 2015**. While the category of synthetic opioids includes other substances such as Tramadol, fentanyl prevails widely.
- In **Canada**, during the 2009-2014 period at least **655 deaths** were attributed to fentanyl as the leading cause of death or as a contributing cause.

KETAMINE



- With regard to the European Union, the increasing concern on the use of ketamine as NPS led to a risk assessment in 2000 within the framework of joint action on new synthetic drugs.
- The European Commission concluded that it was not appropriate to introduce control measures and recommended an increased monitoring of ketamine use.
- Ketamine is a dissociative anaesthetic agent, mainly used in veterinary practice.
- Aside its pharmaceutical use, ketamine is frequently sold as “ecstasy” in the illicit ATS’s markets.
- Streets names include “K”, Special K, cat Valium, among others.
- In high doses, ketamine may cause states similar to dreaming and hallucinations; in even higher doses, ketamine may lead to delirium and amnesia.

LSD

- Lysergide is a semi-synthetic hallucinogen and one of the most powerful drugs ever known.
 - Its recreational use became popular between 1960 and 1980; it is currently less common than in the past.
- LSD is under international control, although some phenethylamines -most of them under no control- are being sold as LSD in different Latin American countries.
- The international common denomination is (+) – lysergide. The acronym LSD derives from the German name Lysergsäurediethylamid (Lysergic acid diethylamide).
 - Lysergide belongs to the family of the indolealkylamines, which includes numerous substituted tryptamines like psilocin (found in “magic” mushrooms) and N,N-dimethyltryptamine



Sort by: Default 1 2 3 4 5 6

<p>Cannabis (300+)</p> <p>Concentrate (20+)</p> <p>Hash (50+)</p> <p>Seed (1)</p> <p>Weed (200+)</p> <p>Dissociatives (20+)</p> <p>Ecstasy (100+)</p> <p>MDMA (100+)</p> <p>Methylone (14)</p> <p>Opioids (20+)</p> <p>Prescription (20+)</p> <p>Enzanas (20+)</p> <p>Opiates (20+)</p> <p>Stimulants (2)</p> <p>Psychedelic (100+)</p> <p>2C (13)</p> <p>DMT (7)</p> <p>LSD (20+)</p> <p>Mushrooms (2)</p> <p>Others (20+)</p> <p>Stimulants (100+)</p> <p>Amphetamine (50+)</p> <p>Cocaine (50+)</p> <p>Meth (8)</p> <p>Steroids (14)</p> <p>Injectable (6)</p> <p>Oral (4)</p> <p>Other (1)</p> <p>Tabs (1)</p> <p>Tobacco (20+)</p> <p>Other (100+)</p> <p>Counterfeits (11)</p> <p>Digital (100+)</p> <p>Goods (17)</p> <p>Currency (7)</p>	<p>100g MDMA 87% Purity - Cuck</p> <p>£148.51 for 10g (€15/g) MDMA</p> <p>By haizenberg (77) ★</p>	<p>Stimorpon-speed Paste 100</p> <p>£329.1 for 100g (€3 29/g) Amphetam</p> <p>By huntersthorpion (42) ★</p>	<p>100g Pure Crystal A-cyn</p> <p>£742.55 for 100g (€7/g) Amphetam</p> <p>By drzheng (9) ★</p>	<p>Australian Dollars +high</p> <p>£445.53 for 1 (€446/each) Currency</p> <p>By nfermet (0) ★</p>	<p>50g MDMA 87% Purity - Cuck</p> <p>£77.23 for 5g (€15/g) MDMA</p> <p>By haizenberg (77) ★</p>	<p>The Firearm Drugstore - Chem</p> <p>£1.19 for 1 (€1.19/each) Digital</p> <p>By The Black Hand (28) ★</p>	<p>600x Combo Bitters! 24h</p> <p>£178.21 for 900 (€0 2/each) Others</p> <p>By footstool blue (0) ★</p>
	<p>Feeling The Black Hand</p> <p>£1.19 for 1 (€1.19/each) Digital</p> <p>By The Black Hand (28) ★</p>	<p>500 Pills Xanax 1 Mg</p> <p>£193.06 for 500 (€0 39/each) Prescrip</p> <p>By Meds 2 Buy (1) ★</p>	<p>Organic Pineapple (1.1 Oz)</p> <p>£54.18 for 113.4g (€4 89/g) Weed</p> <p>By Turtle Time (75) ★</p>	<p>250 X Gold Bars - 100g 9+</p> <p>£522.75 for 250 (€2 09/each) MDMA</p> <p>By DutchMasters (100+ ★)</p>	<p>2x 25c Niborne 1 200ug B</p> <p>£68.31 for 225 (€0 3/each) Psychade</p> <p>By Tnppy Bear (0) ★</p>	<p>High Potency Crumble Wax</p> <p>£20.79 for 0.5g (€42/g) Hash</p> <p>By Turtle Time (75) ★</p>	<p>Psychedelic Drugs Reconsidered</p> <p>£1.19 for 1 (€1.19/each) Digital</p> <p>By The Black Hand (28) ★</p>
	<p>Ketamine - Dreams And Real</p> <p>£1.19 for 1 (€1.19/each) Digital</p> <p>By The Black Hand (28) ★</p>	<p>1 Sample Subutex 8mg No</p> <p>£10.1 for 1 (€10/each) Prescrip</p> <p>By redpoison1 (3) ★</p>	<p>150 Pills Xanax 1 Mg</p> <p>£86.14 for 150 (€0 57/each) Prescrip</p> <p>By Meds 2 Buy (1) ★</p>	<p>3 Grams White Widow</p> <p>£29.11 for 3g (€10/g) Weed</p> <p>By YOUR O.C. QUEEN (5) ★</p>	<p>100 Pills Bupropion 2 Mg</p> <p>£68.31 for 100 (€0 68/each) Prescrip</p> <p>By Meds 2 Buy (1) ★</p>	<p>10g Pure Speed Paste 72%+</p> <p>£29.7 for 10g (€2 97/g) Amphetam</p> <p>By snapback shop (100+ ★)</p>	<p>Kent Cheap Cigarettes To</p> <p>£23.17 for 1 (€23/each) Tobacco</p> <p>By ShopAgent (0) ★</p>
	<p>Bulk Listing 150g Swazi G</p> <p>£207.91 for 150g (€1 39/g) Weed</p> <p>By theblossom's T... (4) ★</p>	<p>The Road To Eleusis - Unve</p> <p>£1.19 for 1 (€1.19/each) Digital</p> <p>By The Black Hand (28) ★</p>	<p>100 Subutex 8mg No Fuckin</p> <p>£712.85 for 100 (€7/each) Prescrip</p> <p>By redpoison1 (3) ★</p>	<p>50 Pills Restoril 30 Mg</p> <p>£50.49 for 50 (€1 01/each) Prescrip</p> <p>By Meds 2 Buy (1) ★</p>	<p>Organic Pineapple (5.1lb)</p> <p>£7758.5 for 2267.96g (€3 42/g) Weed</p> <p>By Turtle Time (75) ★</p>	<p>Cocaine Handbook: An Essen</p> <p>£1.19 for 1 (€1.19/each) Digital</p> <p>By The Black Hand (28) ★</p>	<p>7x Oxycontin 10 Mg - The</p> <p>£38.61 for 7 (€6/each) Opiates</p> <p>By theOCGuy - Oxy... (56) ★</p>

BTC Rate

USD	\$596.53
EUR	€444.17
GBP	£354.36

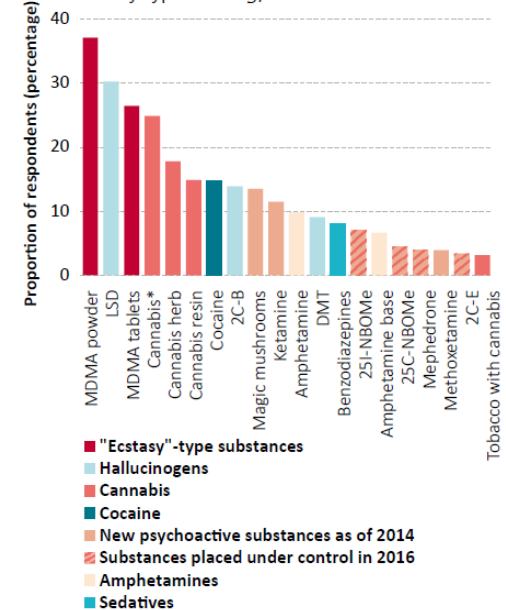
NPS: Easy to produce, transport, send (Courier), camouflage and sell

Purchase / sale of drugs through the darknet

Buying DRUGS over the “dark web”

- The dark web includes content that is circulating over encrypted nets or darknets; it makes use of the World Wide Web, but requires special programs or access authorization.
- The purchase of drugs over the Internet, in particular over the “dark web”, may have increased during the last years.
 - This trend poses concerns about the potential of the “dark web” to attract new populations of users, easing the access to drugs in an environment
 - -although illegal- that prevents users from the direct contact with criminals and police authorities.
- As the “dark web” cannot be accessed through the typical search on the web, buyers and sellers get access through The Onion Router (TOR), for securely hidden identities.
- Products are usually paid with bitcoins or other crypto-currency, and often delivered via postal services.

FIG. 26 Drugs purchased on the “dark net”, by type of drug, 2014



* Hydroponically grown cannabis.

Source: Global Drug Survey 2015 (www.globaldrugsurvey.com).

Note: Proportion of survey respondents who bought each drug on the “dark net” among participants in the Global Drug Survey between November and December 2014.



Buying DRUGS over the “dark web”

- Different operations leading by EUROPOL have achieved the complete or partial closure of some important nets. Nevertheless, when one market closes, the most trusted next one tends to absorb the most part of the displaced business.
 - According to a 2015 online survey, purchasing via dark net presents certain “advantages” to the buyers, so that it is used even by people who never bought or used drugs before.
 - The survey showed that about 4% of dark web users had never used any drugs before their access via the “dark net”.
- In the same way, 30% of people who acquired drugs via the “dark web” reported the use of a wider range of drugs than before starting to purchase over this net.

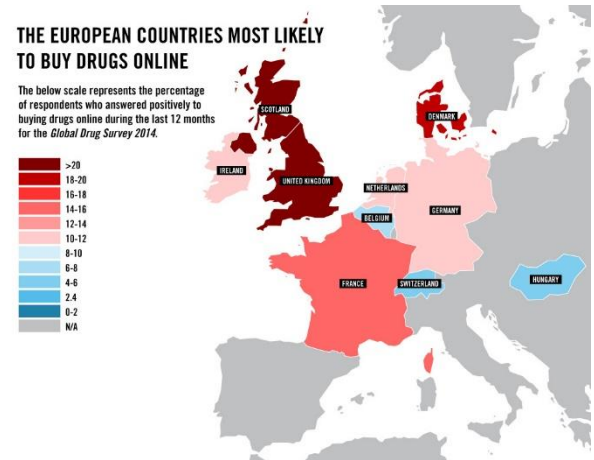
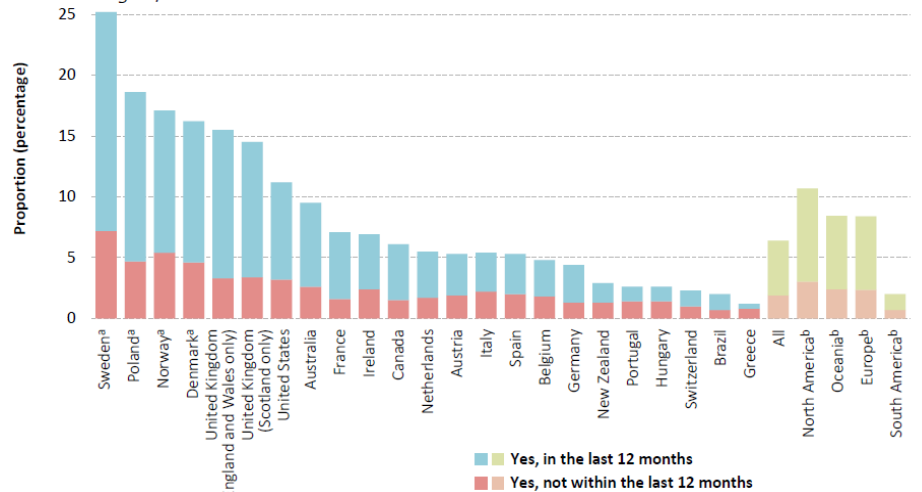


FIG. 25 Proportion of survey respondents who had purchased drugs on the “dark net”, by country and region, 2014




Source: Global Drug Survey 2015 (www.globaldrugsurvey.com)

Note: The figure shows the proportion of people participating in the Global Drug Survey who bought drugs via the "dark net" between November and December 2014. ^a Based on the replies of fewer than 600 respondents. ^b Regional results show the national (and subnational) results weighted by population.

NEW PSYCHOACTIVE SUBSTANCES-NPS


- *General aspects and the scope of the problem*



PUBLIC HEARING
Proposal for a regulation of the European Parliament and of the Council

New Psychoactive Substances

27 November 2013 | JDE 51 | 9.30 a.m. - 1 p.m.
EESC | Jacques Delors Building | 99, rue Belliard | 1040 Brussels



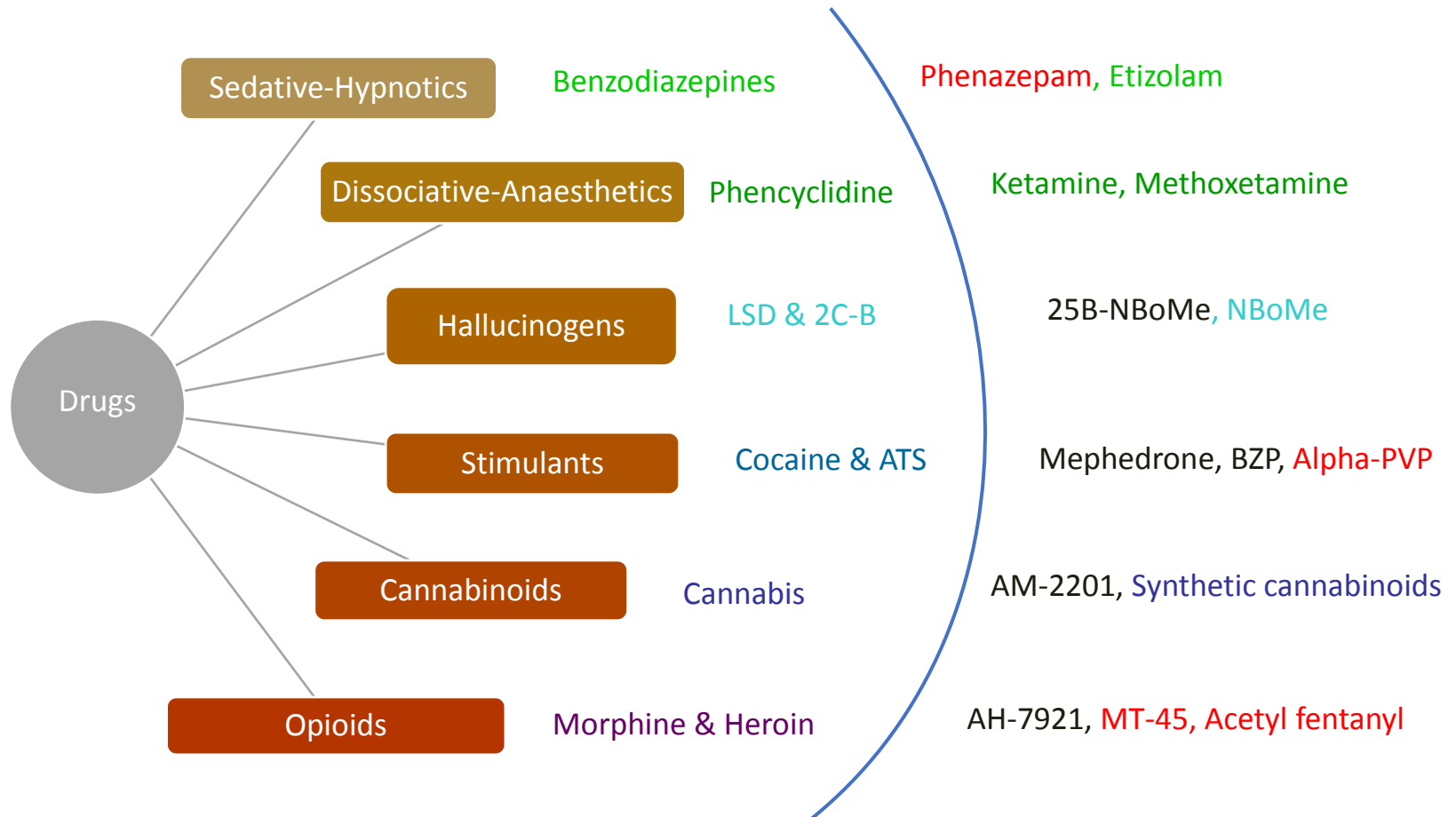
European Economic and Social Committee

What are New Psychoactive Substances?

- They are not controlled under any international Conventions on drugs
- Available just recently
- Linked to serious health risks
- Mirror the effects of traditional drugs



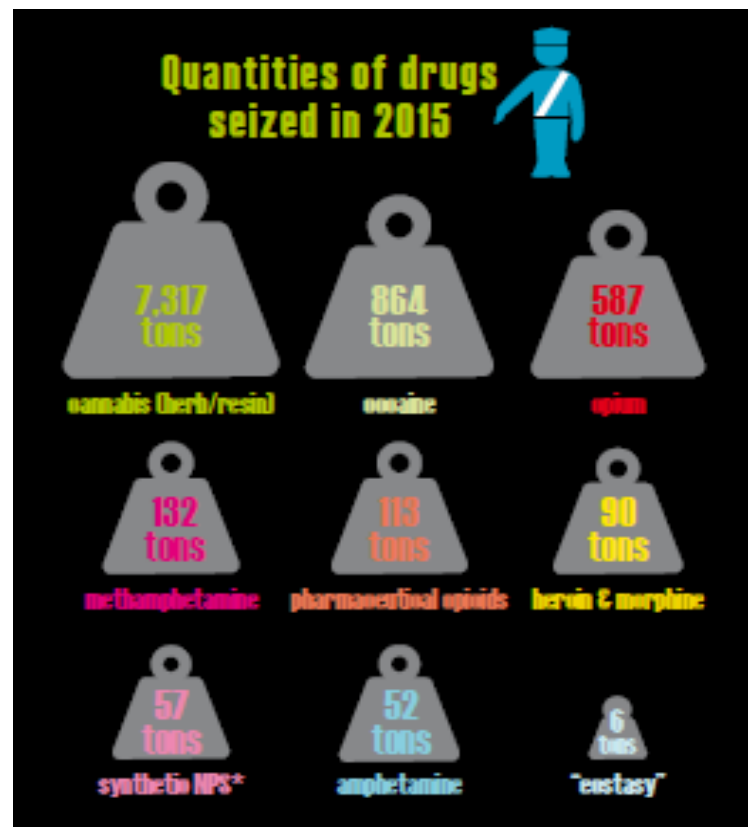
What are New Psychoactive Substances?

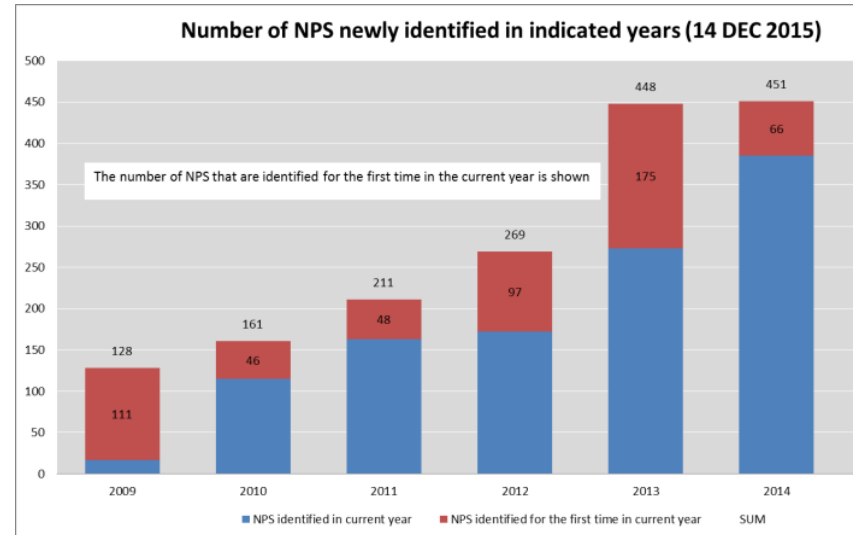
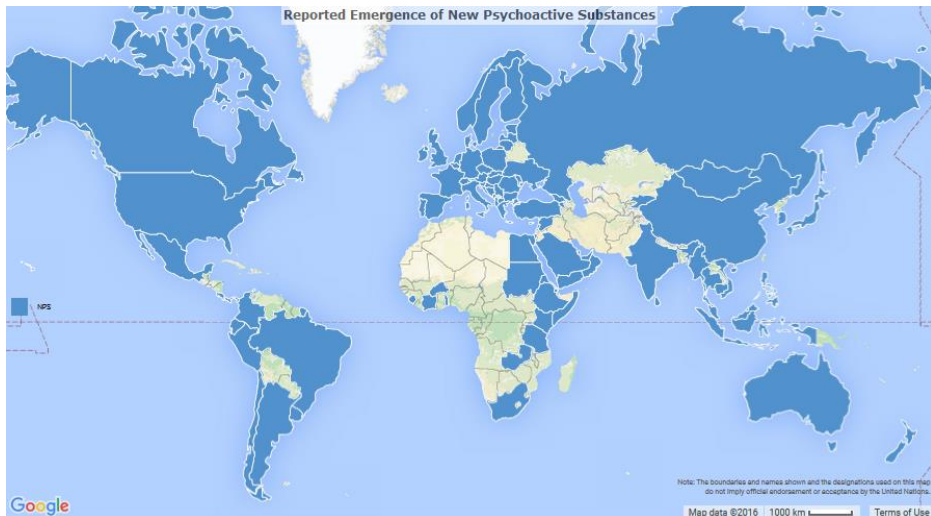


*Substances in **black** are already under control, and substances in **red** have been recommended to international control by the WHO Expert Committee on Drug Dependence

New psychoactive substances may be even more lethal than other drugs; market still relatively small

- In spite of the large number of NPS circulating the drug markets, the global market volume of these substances is still rather small compared to other drugs.
- One aspect of concern on NPS is that users of these drugs are not aware of the quantity or dosage of the psychoactive substances contained in some of them, which may expose people to serious health risks.
- There is little or no scientific information to determine possible effects of these substances and the best way to counteract them.
- Between 2009 and 2016, 106 countries and territories informed UNODC of the emergence of 739 different NPS.





Priorities on NPS: monitoring, prevalence and persistence

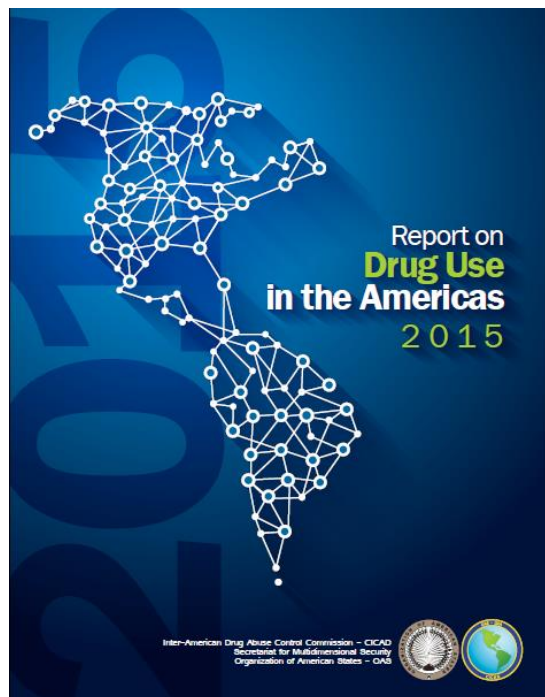
By the end of 2017 more than 800 NPS had been reported globally

Monitoring the new psychoactive substances in the Americas

- In the Americas, there is no specific legal instrument from agencies such as the Organization of American States that enables organizations and Member States to take action on potentially dangerous NPS.
- Nevertheless, official recommendations do exist, adopted within the framework of the Group of Experts on Chemical Substances and Pharmaceutical Products of CICAD/OAS.
- Additionally, the countries meet the decisions of the United Nations Commission on Narcotic Drugs regarding NPS.
- Overall, Latin American and Caribbean countries are in a different stage regarding NPS, if compared with the advances of the United States and Canada in that matter.
- Nonetheless, certain countries from Latin America and the Caribbean have moved forward with enhanced monitoring systems that include NPS, the implementation of early warning systems and changes to legislation on drugs in order to add NPS.



N ✓



CHAPTER 6: AMPHETAMINE-TYPE STIMULANTS

Introduction

Amphetamine-type stimulants (ATS) are a group of substances that include synthetic stimulants such as amphetamine, methamphetamine, ecstasy-type substances⁴⁰⁰ (such as MDMA, MDA, MDE/MDA and their analogues), illicitly obtained or falsified prescription medications that contain these substances, and other stimulants such as methcathinone and 2C-B.⁴⁰¹

According to the World Drug Report (UNODC, 2014), ATS are the psychoactive substances most used worldwide after marijuana. It was estimated in 2012 that the number of ATS users was 34.4 million for the amphetamine class alone, and 18.7 million users of ecstasy-type substances, while there were 177.6 million users of marijuana, 33 million users of opioids, 16 million users of opiates, and 17 million users of cocaine.

Amphetamines group

The amphetamines group includes both amphetamine and methamphetamine. Although some amphetamine are produced for medical purposes, most are distributed illegally and produced illicitly in clandestine laboratories.

Methamphetamine are the ATS most widely produced and used. They are a central nervous system stimulant commonly known as "speed", "meth" and "chalk". These terms generally refer to the crystalline form of the drug, which can be smoked as "ice", "crystal", "crank" or "glass". It is a white, bitter-tasting, odorless powder or crystal that is easily soluble in water and alcohol.

The substances in the amphetamines group were originally compounded at the end of the nineteenth century, and sold without medical prescription as nasal decongestants beginning in 1932. When used in similar doses to amphetamine, methamphetamine reach the brain in larger amounts than amphetamine, which makes them a more powerful central nervous system stimulant, whose effect is of longer duration.

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

North America has had a large and growing market for ATS for a number of years. Manufacture of methamphetamine in particular in Mexico and the United States appears to have grown significantly and, according to the United States, large volumes of the drug are brought into the country as contraband from Mexico. However, the use of methamphetamine has remained at relatively low and stable levels thus far throughout the subregion.

⁴⁰⁰ Given the wide variety of drugs sold on the market as "ecstasy" but after chemical analysis are shown to contain little or no MDMA, this report will use the word "ecstasy" or "ecstasy-type substances" interchangeably to refer to these drugs.

CHAPTER 7: NEW PSYCHOACTIVE SUBSTANCES AND OTHER EMERGING DRUGS IN THE REGION

NEW PSYCHOACTIVE SUBSTANCES

In recent years, the illicit drug market has seen the appearance of a number of new substances that often have chemical and/or pharmacological properties similar to internationally controlled substances. Their variety has never been greater than it is now.

These new psychoactive substances (NPS) have been termed "designer drugs", "legal highs", "herbal highs", "bath salts", "research chemicals" and "laboratory reagents". In an effort to clarify the language, UNODC uses only the term new psychoactive substances, which 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 Convention on Psychotropic Substances of 1971, but which may pose a threat to public health". The word "new" does not necessarily refer to new inventions, a number of NPS were first synthesized forty years ago, but rather means that they are substances that have appeared recently on the market and that have not been scheduled in the UN Convention.

NPS mimic the effects of controlled substances⁴⁰²

Many new psychoactive substances on the market contain chemical products that have structural and/or pharmacological properties similar to the substances under international control and are designed to mimic them.

For example, synthetic cannabinoids, which include the JWH series (such as JWH-018), are compounds that mimic THC (delta-9-tetrahydrocannabinol), which is the principal psychoactive compound in marijuana.

Synthetic cathinones, which include substances like mephedrone, methylene and MDPV, may produce stimulant and empathogenic effects similar to amphetamine, including MDMA.

Phenethylamines include substances such as the 2C series (such as 2C-I) and NBOMe compounds (such as 25i-NBOMe), which produce effects that range from stimulant to hallucinogenic. Some substances in this group are already under international control through the Convention on Psychotropic Substances of 1971, but many of them are still not scheduled.

Tryptamines and their derivatives that have been reported as NPS are indolealkylamine molecules. While some tryptamines of natural origin are neurotransmitters (for example, serotonin, melatonin and bufotenin), most are found as psychoactive hallucinogens in plants, mushrooms and animals (for example, N,N-dimethyltryptamin (DMT) psilocybin, and 3-methoxy-N,N-dimethyltryptamine (3-MeO-DMT) [1-3]).

Monitoring new psychoactive substances and controlled prescription drugs in the Americas

Drug poisoning deaths involving selected illicit drugs, 2008-2015

Source: National Center for Health Statistics/Centers for Disease Control and Prevention, United States.

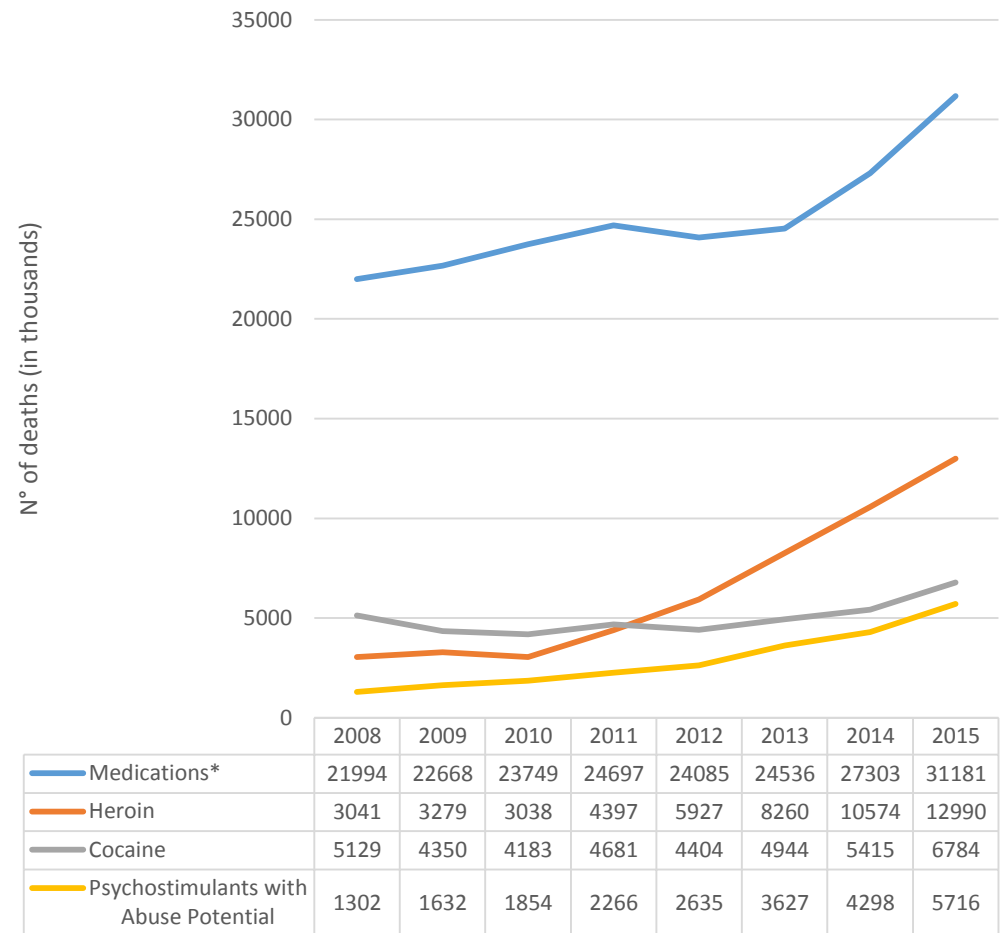
*"Medications" within the CDC's category of death by drug poisoning were previously "prescription drugs," but that was changed for two reasons:

(1) the category includes Over-The-Counter medications and (2) in December 2015, the National Center for Health Statistics changed the definition to include, "...other unspecified narcotics," which slightly increased the numbers.

Controlled prescription drugs (CPDs) include - but it is not limited to- narcotics (e.g. Vicodin, OxyContin), depressants (e.g. Valium, Xanax), stimulants (e.g. Adderall, Ritalin), and anabolic steroids (e.g. Anadrol, Oxandrin).

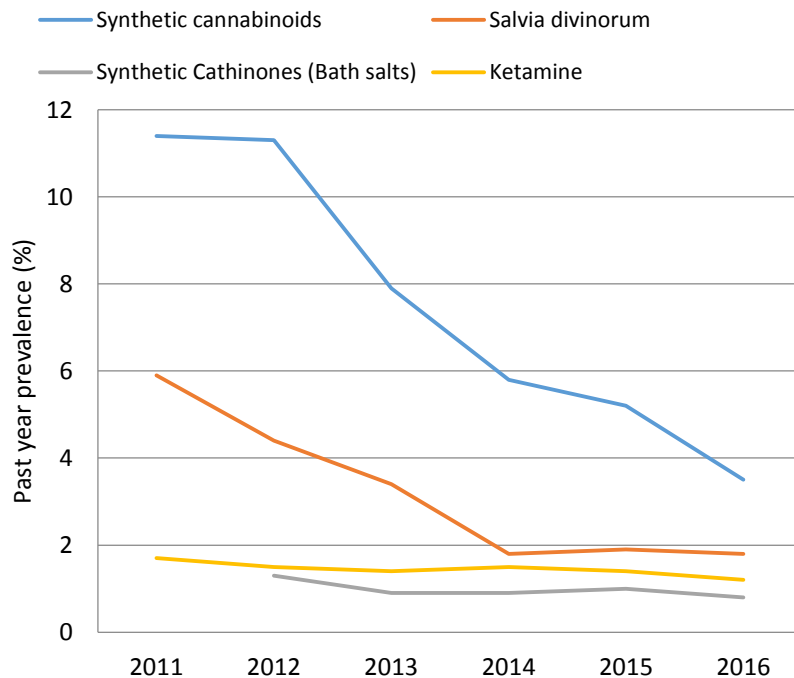
Opioid analgesic overdose deaths include deaths from natural and semi-synthetic substances: codeine, morphine, oxycodone, hydrocodone, and methadone.

Psychostimulants with abuse potential include such drugs as methamphetamine, amphetamine, methylphenidate (Ritalin), and 3, 4-methylenedioxy-methamphetamine (MDMA, Ecstasy).

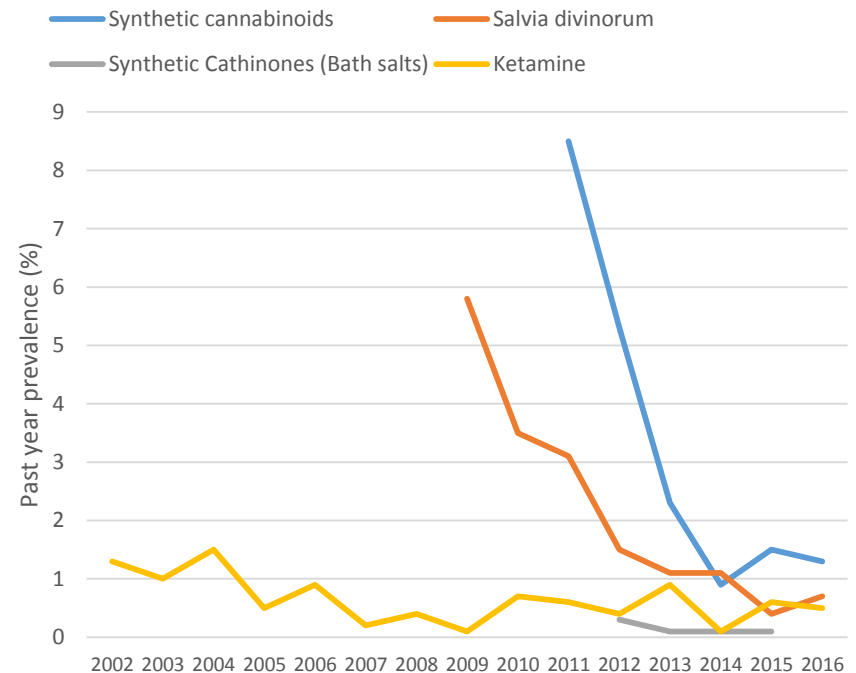


New Psychoactive Substances United States

Past year prevalence of NPS use in US 12th grade students, 2011-2016



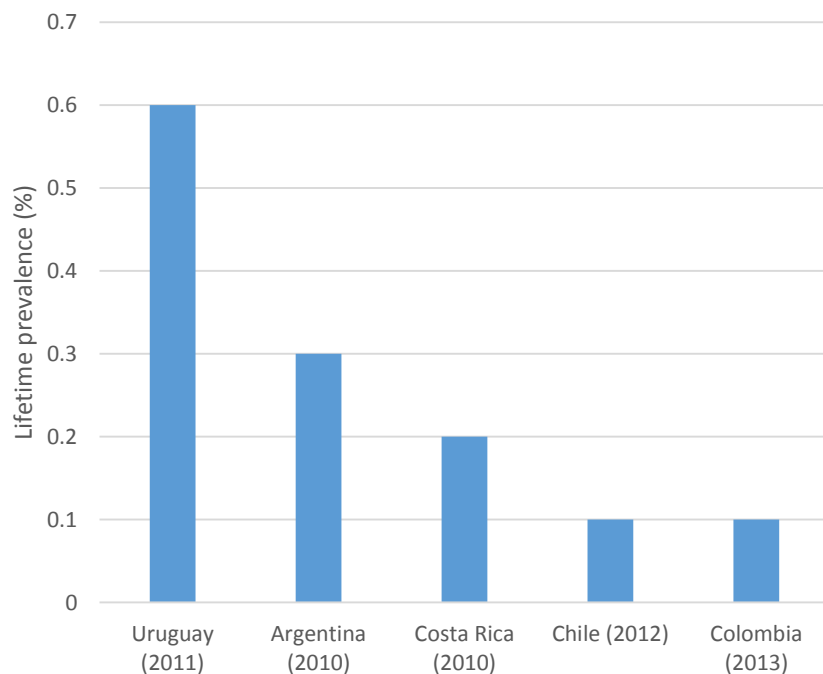
Past year prevalence of NPS use in undergraduate students of the United States, 2002-2016



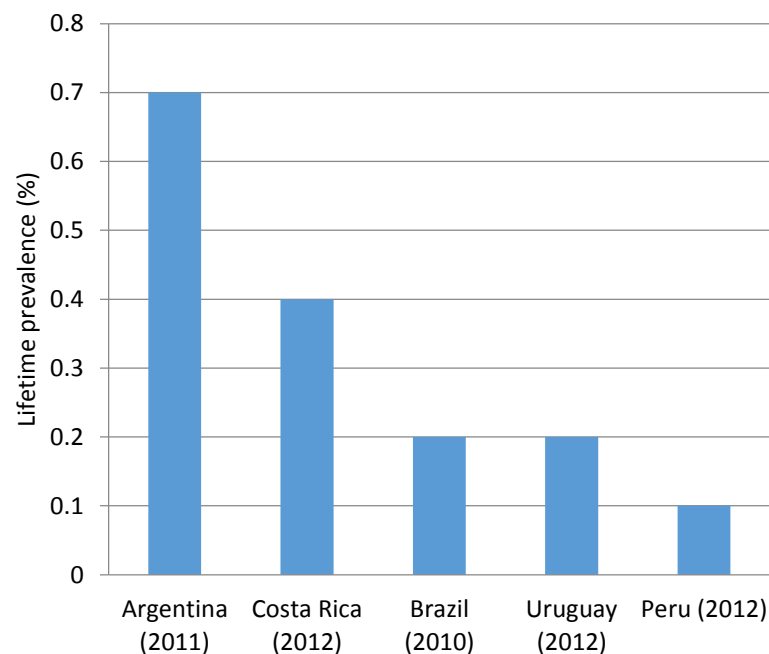
New Psychoactive Substances

Latin America

Lifetime prevalence of ketamine use in general population of five Latin American countries

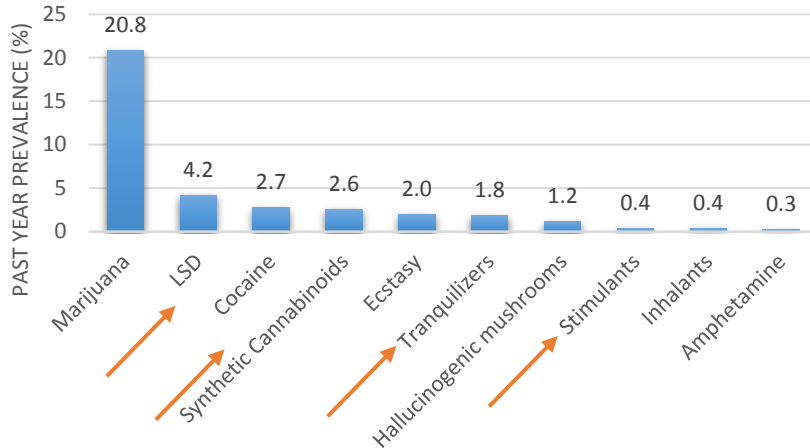


Lifetime prevalence of ketamine use in secondary school students of five Latin American countries

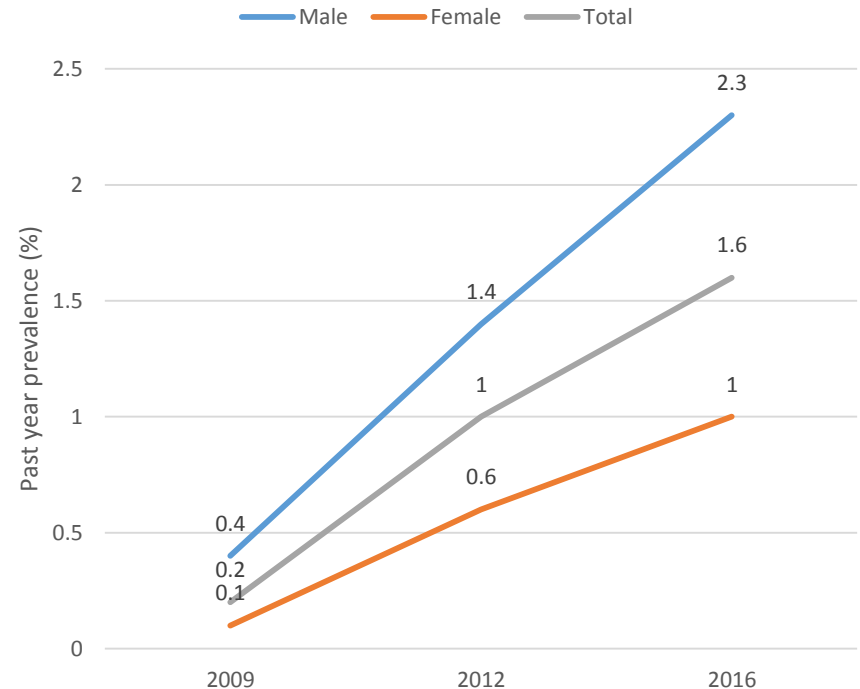


New Psychoactive Substances (NPS) and controlled prescription drugs (CPD) in Undergraduate Students

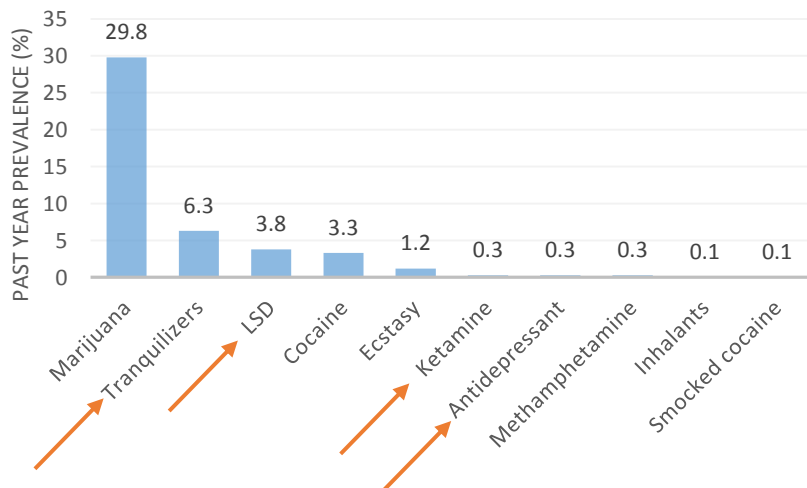
Past year prevalence of drug use in undergraduate students, Colombia, 2016



Past year prevalence of LSD use in Andean undergraduate students regionally, by sex and total, 2009, 2012 and 2016

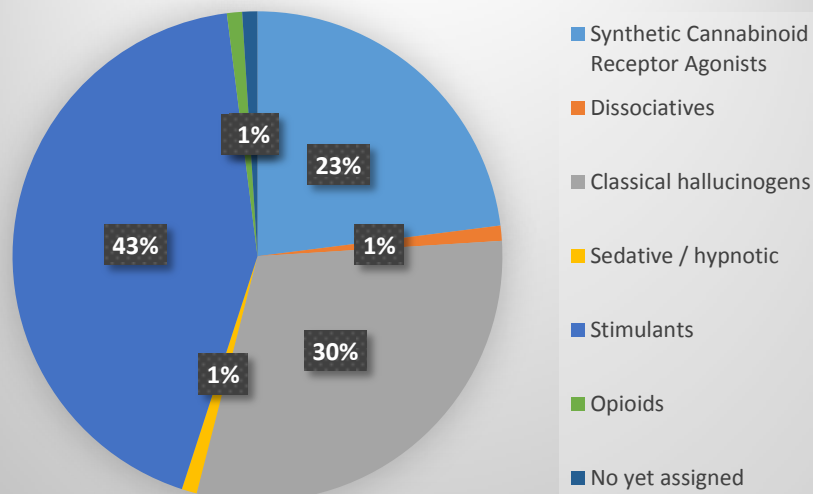


Past year prevalence of drug use in undergraduate students, Uruguay, 2015

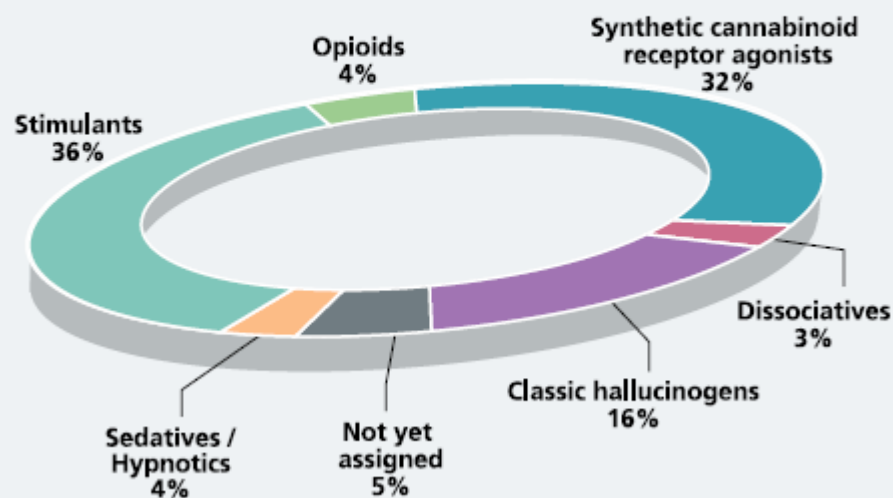


New Psychoactive Substances by effects, reported in South America and Globally

New psychoactive substances by effects reported in South America, as of July 2017



New psychoactive substances by effect group, up to December 2017



Source: UNODC, EWA on NPS. Based on analysis of 126 out of 130 NPS reported in the region as of July, 2017. Due to the great number of substances in a plant and the low understanding of their effects and interactions, plant-based NPS are excluded from this analysis.

NPS arrival to Latin America

- Seizure cases
- Death cases



Los resultados de los exámenes forenses practicados a las víctimas en Buenos Aires!



Las cinco víctimas de Time Warp murieron por "policonsumo"

Así lo determinó el informe toxicológico que se realizó en la Morgue Judicial

WWW.LANACION.COM.AR

Autopsies on the victims determined the use of ecstasy, marihuana, cocaine, gamma hydroxybutyrate (GHB), ketamine and lidocaine, among other drugs. Not every victim consumed the same drugs nor the same amounts.

Desbaratan laboratorio clandestino donde se preparaba psicotrópico 10 veces más tóxico que el LSD

Funcionaba en la población Nueva Aurora de Viña del Mar y era manejado por un hombre de 25 años.

29 de Julio de 2017 | 00:17 | Email



La droga estaba empaquetada en pequeñas estampillas.

El Mercurio

SANTIAGO.- Casi 1 500 dosis del potente psicotrópico conocido como 251-Nbome, fueron decomisadas en el alojamiento que investigadores del OS-7 realizaron en una vivienda de la población de Nueva Aurora, en Viña del Mar. La droga estaba empaquetada en pequeñas estampillas que iban a ser distribuidas en fiestas y encuentros de música electrónica de la zona.

Los detalles de la hoja de vida de



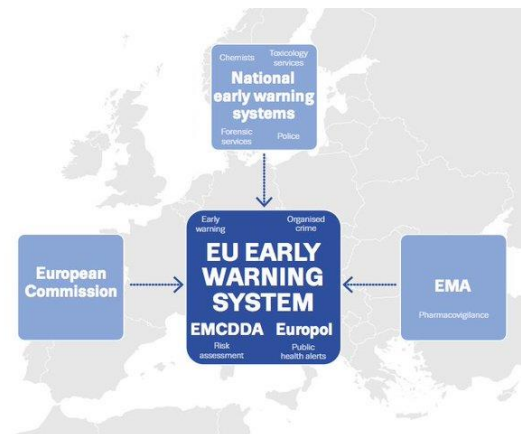


European Monitoring Centre
for Drugs and Drug Addiction

EUROPOL

Early-warning system on new psychoactive substances

Operating guidelines



European Monitoring Centre
for Drugs and Drug Addiction

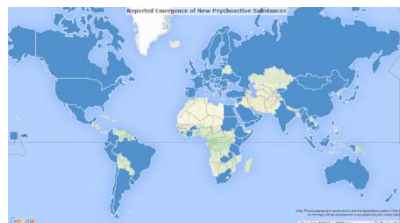
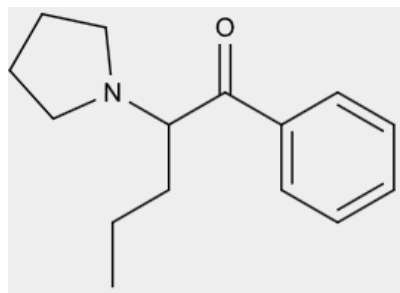
New psychoactive substances in Europe

An update from the EU Early Warning System
March 2015



NEW PSYCHOACTIVE SUBSTANCES - NPS

Early Warning Systems - EWS



Early Warning System: Users and needs

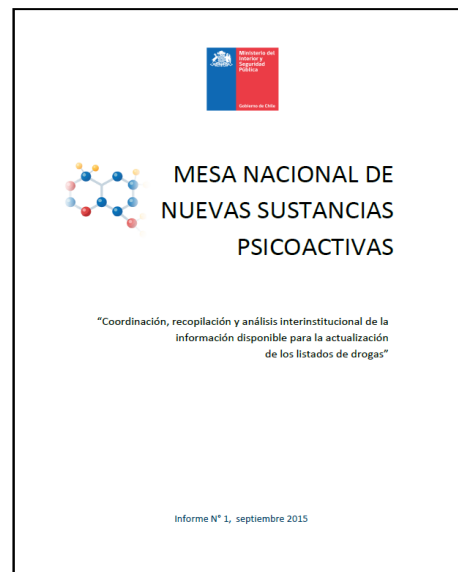
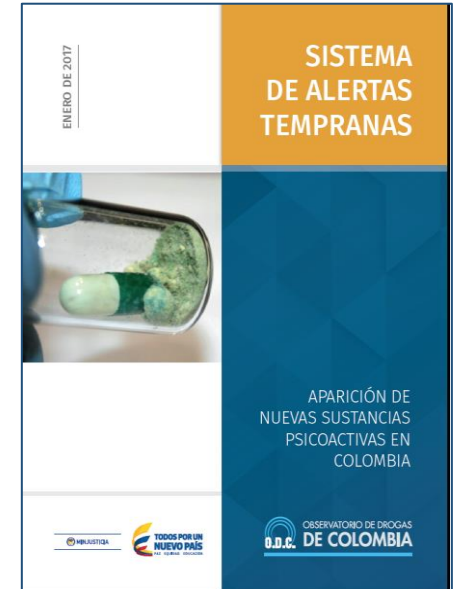
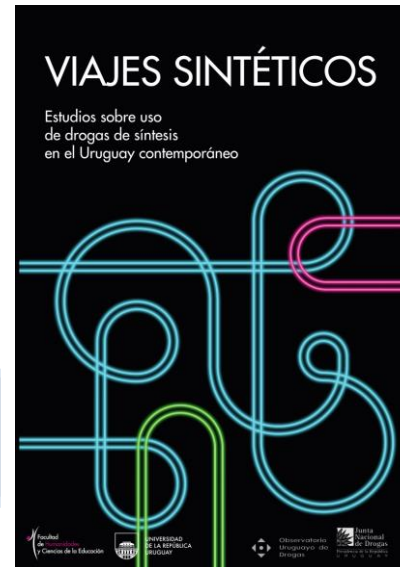
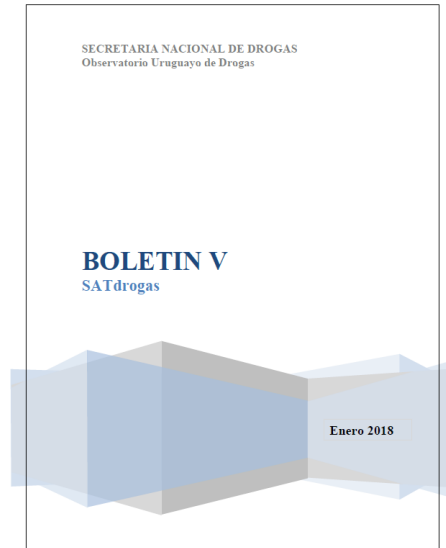
- International organizations the likes of EMCDDA, CND, the WHO Expert Committee on Drug Dependence, INCB, are all the reference and background for discussion and decision making on trends, maps, terminology, effects, dangers of NPS.
- National experts, politicians, and decision-makers: Data on trends analysis, legal aspects, etc.
- Laboratories: Identification of different types of NPS, analysis methodologies, scientific names, etc.

Review of NPS for international planning

- The UNODC's early warning system contributes to the identification of NPS towards a short listing for international review, taking into account such criteria as geographical prevalence and persistence of NPS.
- Impact: The discussion on international NPS control is centered on a manageable number of substances (higher prevalence, persistence and danger).



PROGRESS IN THE EARLY WARNING SYSTEMS OF Latin American countries



EARLY WARNING SYSTEM PARTNERS

National and International

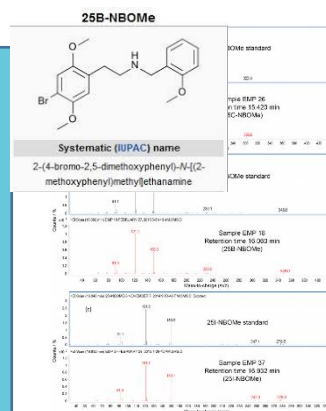


Multiple Sources of Information

Data triangulation

Reports:

- Forensic and Toxicological Analysis
- Law enforcement
- Drug inspections and Surveys
- Health information



EWS
Sources of information

- Focal investigations
- Wastewater analysis
- Computational model of data
- Profiling Drug-toxicology

Data based on events

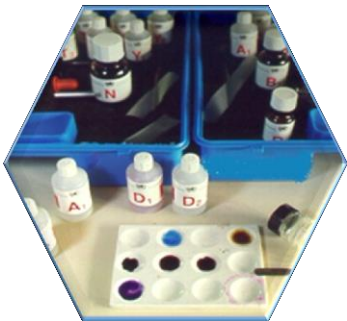
Cluster data

- Seizures
- Sample collection
- Biological samples

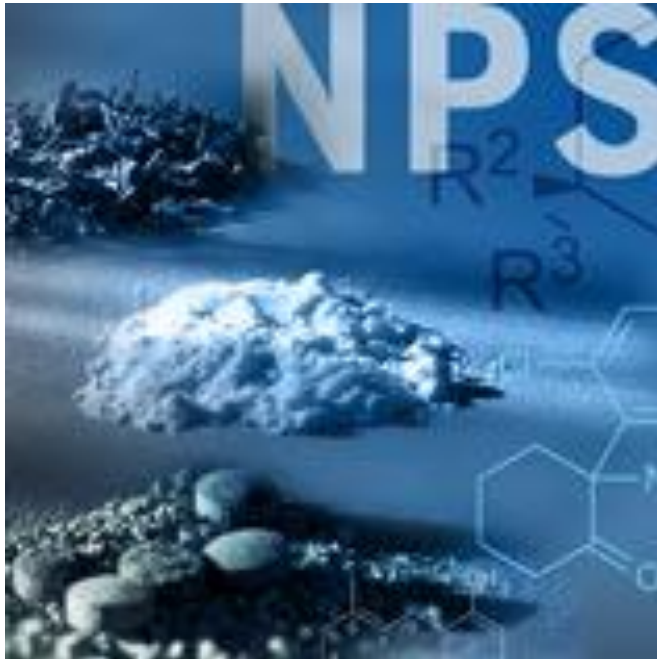
Serious adverse events

Open source information :
Internet, media, users,
Scientific literature / gutter press/
darknet

Future challenges for the *Early Warning Systems on NPS*



- Guarantee a constant flow of data on NPS from a broad range of sources (links to national and regional agencies).
- Gather information in a more systematic manner on risks and dangers (pharmacological and toxicological information).
- Support the inclusion of the scheduled NPS (under control) within the different international mechanisms of data gathering, such as ARQ.
- Satisfy demand coming from laboratories and law enforcement towards an improvement in their capacities for detection and identification of NPS.



NEW PSYCHOACTIVE SUBSTANCES - NPS

Risks and challenges

NPS: The public health dimension

Seized products containing mixed new psychoactive substances

What is in the blotters, tablets,...?

Synthetic cannabinoids

- AM-2201
- XLR-11
- Cannabis

Phenethylamines

- 25B-NBOMe
- 25C-NBOMe
- 2C-C
- 2C-B

Phenethylamines

- 4-MA
- Amphetamine

Synthetic cathinones

- Pentadrone
- Cocaine

Synthetic cannabinoids

- AKB48
- JWH-122
- JWH-210
- JWH-250
- MDPV

Synthetic cannabinoids

- AM2201
- 5-MeO-DALT

Piperazines

- TFMPP
- pFPP
- Lidocaine

Synthetic cathinones

- 3-MMC
- 3,4-DMMC
- alpha-PVP
- AMT
- MPA
- Caffeine

Under international control at time of seizure
Different chemical NPS substance group
Pharmaceutical product
Adulterants



UNODC Early Warning Advisory on New Psychoactive Substances

March 2016 - Poland: "Mocarz" intoxications now linked to synthetic cannabinoid MDMB-CHMICA

Poland - March 2016. In July 2015, Poland registered a large outbreak of intoxications (including at least 3 fatal cases) caused by the use of a NPS product branded as "Mocarz". The product, a herbal mixture containing frequently changing synthetic cannabinoids, has been sold on the Polish market since at least 2010. Samples seized after the outbreak of intoxications revealed to contain various synthetic cannabinoids including [UR-144](#), [XLR-11](#), [BB-22](#), [5F-PB-22](#), and [MDMB-CHMICA](#). However, no substance had been analytically confirmed so far as the cause of the intoxications/deaths.

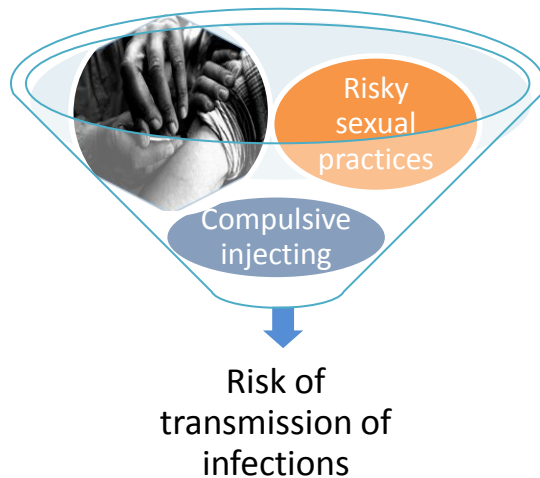
An article newly published in Forensic Science International describes the analysis of one of the fatal cases, whereby the victim died from multiple organ failure after four days of hospitalization. The provided evidence demonstrates the presence of MDMB-CHMICA in ante- and post-mortem blood and internal organs. The study clearly designates MDMB-CHMICA as the main cause of poisoning and concludes that even low doses of this substance might lead to fatal consequences.



Source: Police (Policja) Poland

Source: UNODC NPS questionnaire 2014

NPS: The public health dimension



Injecting drug use of synthetic cathinones

 UNODC Early Warning Advisory
on New Psychoactive Substances


October 2015 - Ireland: Injection of alpha-PVP associated with recently acquired HIV infections among homeless people who inject drugs

DUBLIN, Ireland – October 2015. In February 2015, the Department of Public Health (DPH), Health Service Executive (HSE) in Dublin identified an unexpected increase in cases of acute HIV infection among people who inject drugs (PWID). This increase was associated with the injection of the synthetic cathinone alpha-PVP by so called *chaotic* PWID. Chaotic PWID were defined by clinicians as heroin injectors who were homeless, and if on opioid substitution treatment, required daily attendance at their treatment programme, due to continued use of a variety of other illicit substances in an intensive or chaotic way.

The National Drug Treatment Centre (Dublin) conducted a case-control study among *chaotic* PWID, residing in Dublin and diagnosed with HIV since July 2014, that had been injecting within the previous 12 months. From 38 confirmed and probable cases of HIV infection, 29 persons were homeless and 20 of them provided information on their drug use with 18 reporting to have injected alpha-PVP. The comparison of the case group and the control group showed that the likelihood of recent HIV infection was highest among those who were injecting alpha-PVP daily. As opposed to the control group, individuals in the case group were more likely to have used various drugs including amphetamines and benzodiazepines - in the past 12 months, reused needles and syringes and had sex with PWID partners.



Source: UNAIDS

 UNODC Early Warning Advisory
on New Psychoactive Substances

November 2015 - United Kingdom: Rise of mephedrone and amphetamine injecting in the United Kingdom

LONDON, United Kingdom – November 2015. The findings of a recent update of the report *"Shooting Up Infections among people who inject drugs in the UK"* from Public Health England indicate an increase in the number of people injecting stimulants, particularly amphetamine-type stimulants, in the United Kingdom. In the report, concern is expressed about the fact that within five years of the first appearance of mephedrone, around one-in-ten people who inject drugs reported the injection of this substance. There are also concerns about the injection of mephedrone and other drugs among some sub-groups of MSM (men who have sex with men) during sex, with injecting equipment often shared and condoms not being used.


Among the population surveyed in England, Wales and Northern Ireland, the proportion of people who reported injecting amphetamine-type stimulants as their main drug tripled from 3.9 per cent (58/1,460) in 2004 to 12 per cent (159/1,354) in 2014. The number of people reporting injecting use of amphetamine during the preceding month increased from 18 per cent in 2010 to 24 per cent in 2014. Injecting use of mephedrone during the preceding month was reported by 5.9 per cent (92/1,554) in 2014. Those who had injected mephedrone were younger than those who had not. Mephedrone injecting is a more recent practice which occurs mainly among people who have previously injected other drugs, and among people who have switched from snorting mephedrone.

Increased health problems related to the injection of mephedrone were also reported. In England, Wales and Northern Ireland, those who reported that they had injected mephedrone during the preceding year were more likely to have HIV, to have antibodies to hepatitis C virus, and to report having had an injection site infection during the preceding year. These findings suggest that mephedrone injecting may have emerged among higher risk groups with already elevated levels of infection. Those who reported that they had injected amphetamine during the past year were also more likely to have antibodies to hepatitis C than those who had not. In Ireland, an unexpected increase in cases of acute HIV infection among people who inject drugs (PWID) associated with the injection of the synthetic cathinone alpha-PVP by so called *chaotic* PWID was reported earlier this year.



NPS in prisons

Inexpensive, powerful, undetectable



Public Health England

Protecting and improving the nation's health

New Psychoactive Substances (NPS) in prisons:

A toolkit for prison staff

Who uses NPS?

- Fewer than 1 in 100 adults (0.7%) had used NPS in the last year (CSEW).
- 1.1% of men had used NPS in the last year compared to 0.4% of women (CSEW).
- 113,000 (3.6%) of men aged 16-24 had used NPS in the last year, almost half of all users (CSEW).
- There are different cohorts of NPS users, such as clubbers, people who use other drugs, homeless and vulnerable people, people who engage in chem-sex – in particular men who have sex with men.
- Prisoners form another group of NPS users that also includes a range of sub-cohorts.
- SC form the only category of illicit drugs whose use by prisoners is higher in prisons than in the community (10% compared to 6%) (Changing patterns of substance misuse in adult prisons and service responses A thematic review by HM Inspectorate of Prisons December 2015).
- There are shifting patterns of use due to variable purity and cost, along with changes in their legal status and their desired or adverse effects.
- NPS use is subject to regional variations and often linked to local sub-cultures.

Public Health England exists to protect and improve the nation's health and wellbeing, and reduce health inequalities. It does this through world-class science, knowledge and intelligence, winning partnerships and the delivery of specialist public health services.





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Acknowledgments
Developed by Dr George Ryan & Nino Maddalena.

Contributions:
Kieran Lynch, Michael Wheatley, Martin Stephens



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Prisoners hospitalised because drugs 'readily available' in G4S private jail

Chief inspector of prisons says inmates at Altcourse jail in Merseyside often need medical attention after bingeing on drugs, such as 'Black Mamba'



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M News UK News Legal highs

Legal highs inside prisons could lead to convicts killing a prison guard, bosses fear

Aug 30, 2014 20:37 By Justin Penrose, Andy Gardner

Jails are being flooded with the lethal substances - some as addictive as cocaine - the prison officers' association has warned





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25 March 2014 Last updated at 14:12



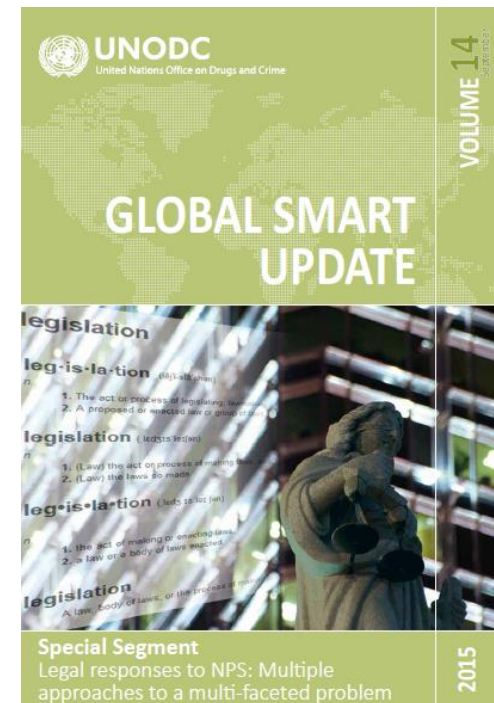
Legal highs hospitalise Dartmoor prisoners



Legislation on NPS

The national legislations' answers to changes— since 2009

- Making use of (other) regulations (sometimes controversial) not related to drugs
 - Criminalization of supply
- Modifying drug legislation
 - Criminalization of supply and/or temporary possession or risk assessment mechanisms
- Introducing new legislation on NPS
 - Criminalization of supply
 - Or combinations
- Making use of pharmaceutical legislation
- Making use of legislation on consumer protection



PRECURSORS FOR SYNTHETIC DRUGS PRODUCTION

- *Precursors control*
- *Role of forensic laboratories*
- *Need for training and exchange of information in a rapid and timely manner*



INTERNATIONAL NARCOTICS CONTROL BOARD



Precursors

and chemicals frequently used in the illicit manufacture
of narcotic drugs and psychotropic substances

2017



UNITED NATIONS

EMBARGO

Observe release date:
Not to be published or broadcast before
Thursday, 1 March 2018, at 11:00 hours (CET)

CAUTION

FUTURE CHALLENGES

- *Need of building or improving the monitoring and exchange of information systems: Surveys, EWS, etc.*
- *Challenges for control agencies: Police and customs.*
- *Need of building new skills: Education and training.*
- *Challenges for health teams: Detection, reaction, and education.*
- *Challenges for forensic laboratories: Detection, experience share, coordination.*
- *Potential alternatives for the existing legislation.*

SIXTY-THIRD REGULAR SESSION OF THE INTER-AMERICAN DRUG ABUSE CONTROL COMMISSION (CICAD)

April 25-27, 2018 - Mexico City, Mexico

More information about NPS:

http://www.cicad.oas.org/Main/Template.asp?File=/oid/smart/default_spa.asp

<https://www.dea.gov/druginfo/fentanyl.shtml>

<http://www.unodc.org/unodc/en/scientists/science-and-policy.html>

<https://www.incb.org/incb/es/precursors/index.html>



www.CICAD.OAS.org/Hemispheric