New and emerging psychoactive substances – The global perspective

Beate Hammond
Laboratory and Scientific Section
United Nations Office on Drugs and Crime

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UNODC Global SMART Programme

Synthetics Monitoring: Analyses, Reporting and Trends

**Objective:** assist Member States in selected key regions to generate, analyse and report data on synthetic drugs; and ultimately, to facilitate States making effective evidence based decisions to counter the problem of synthetic drugs.

Features of UNODC Global SMART:

- **Situation reports**
- **Regional assessments**
- **EMERGING DEVELOPMENTS AND NEW TRENDS**
UNODC Global SMART

Donors:
- Australia
- Canada
- Japan
- Rep. of Korea
- New Zealand
- Thailand
- Brunei
- Darussalam
- Cambodia
- China
- Indonesia
- Lao PDR
- Malaysia
- Myanmar
- Philippines
- Singapore
- Thailand
- Viet Nam

Global SMART Programme
'New psychoactive substances'

- Pharmacological properties and effects similar to a known illicit substance
- Not controlled by the United Nations drug control Conventions (vs. national control)
- Image
  - Legal ("legal high", "legal cocaine" etc.)
  - Consumer good ("plant food", "bath salt", "incense scented sachet")
  - Aura of science ("research chemicals")
## A century of ‘new psychoactive substances’

<table>
<thead>
<tr>
<th>Year</th>
<th>Chemical group</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>1925</td>
<td>morphine</td>
<td>3-benzoyl-morphine, 6-acetyl-3-propionyl-morphine</td>
</tr>
<tr>
<td>1960</td>
<td>fentanyl, phenethylamines</td>
<td>α-methylfentanyl, 3-methylfentanyl, DOM, MDMA (PiHKAL compounds)</td>
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<tr>
<td>1980</td>
<td>tryptamines</td>
<td>DiPT, Foxy (TiHKAL compounds)</td>
</tr>
<tr>
<td>2000</td>
<td>piperazines, synth. cannabinoids, cathinones</td>
<td>BZP, mCPP, TFMPP, 2C-B-BZP, JWH-018,-073,-200, etc. mephedrone, MDPV, naphyrone</td>
</tr>
</tbody>
</table>
‘New psychoactive substances - an overview’

- **Ketamine**

- **Piperazines**: BZP, mcPP, TFMPP

- **Synthetic cathinones**: Mephedrone, MDPV, flephedrone, naphyrone
‘New psychoactive substances- an overview’

• **Synthetic cannabinoids:**
  JWH-122, ‘spice’, ‘yucatan fire’

• **Plant-based substances:**
  *Kratom (mitragyna speciosa), Salvia divinorum*
Global NPS monitoring - the great challenge

Monitoring NPS is crucial:

- National systems e.g. Australia - Ecstasy and related Drugs Reporting System
- Regional system (EMCDDA)

Global system? - Monitoring tools at the global level
- Annual reports questionnaire
- SMART Regional workshops (Asia and the Pacific, Latin America)
- UNODC LSS laboratory networks
International Collaborative Exercises (ICE)

- International Quality Assurance Program
  - Proficiency test for National Drug testing laboratories
  - Drug testing in seized materials/biological specimens
- Global participation
  - Two rounds per year (six-month intervals)
  - Global reach 2011= 133 laboratories, 50 countries
  - E-portal (direct contact between UNODC and laboratories)
- Annex: Laboratories are requested to provide information on new substances
Global reach of UNODC-ICE

- Biological specimens and Seized materials
- Seized materials
- Biological specimens
71% of all participants from Europe reported new substances.

Globally, 35% of participants (excluding Europe) reported new substances.
NPS reported via ICE
NPS reported via ICE
Ketamine

• “OPS”
• Use reported in Asia, Americas, Europe, Oceania
• Multi-ton seizures (China, Canada, India)
  • 2006- 4.4 tons
  • 2007- 12.1 tons
  • 2008- 8.2 tons
  • 2009-10.8 tons
  • 2010-11.6 tons
Piperazines

- **BZP, TFMPP, mCPP**
- **First emergence Europe, Oceania (New Zealand)**
- **Now Asia (China, Indonesia, Malaysia, Philippines, Viet Nam) and Latin America (Chile)**
- Philippines “substances of concern”
Piperazines reported through ICE, 2010 and 2011

Trifluoromethylphenylpiperazine (TFMPP), metha-Chlorophenylpiperazine (mCPP), Benzylpiperazine (BZP), para-Fluorophenylpiperazine (pFPP)

No reports of piperazines round 2
Synthetic cathinones

- Frequently used substances: mephedrone, methcathinone, methedrone, 4-fluoromethcathinone, 3-fluoromethcathinone, methylone, and methylenedioxypyrovalerone (MDPV)

- “Bath salts”, “plant food”

- Origins: unknown

- Linked to fatalities in the European Union, emergency room episodes in United States, crimes ("cannibal case")

- Controlled but often still available on the illicit market
Synthetic cathinones reported through ICE, 2010 and 2011

3FMC, 4FMC, Methylone, buthylone, pentylone, naphyrone, 1-naphyrone, 2-naphyrone, pentedrone, MDPV, naphtylpyrovalerone, MDPB, PVP, Pyrovalerone, 4-MEC, 3-MEC, 4,3-DMMC, methedrone, cyclohexanamide, BMDB, benzodrone, MDPBP, MPPP, PPP, MDPPP, PMMA, 3-MeO-MPBP
Synthetic cannabinoids

- Typically found in powder form
- THC-related effects—health dimension similar psychological disorders
- Some of the compounds e.g. JWH-122, could cause severe [muscular spasms, loss of consciousness requiring artificial ventilation] or even life-threatening intoxications when overdosed
- Even slight changes in the molecular structure might lead to a dramatic increase in toxicity
Synthetic cannabinoids

- Comprehensive overview of the synthetic cannabinoids
- Reflects the situation as of January 2011
- Information on pharmacological activity, potential toxicity and recommendations regarding the legal handling of this new phenomenon
- Online only at www.unodc.org
Synthetic cannabinoids reported through ICE, 2010 and 2011

JWH-251, AM-2233, RSC-4 methoxy isomer, RSC-3 methoxy isomer, UR-144, JWH-210, AM-1220, AM-2201, RSC-4, RSC-4-C4, WIN48.098, JWH-019, JWH-122, JWH-203, Marinol, JWH-018, JWH-073, JWH-081, JWH-250, JWH-398, AM-694, CP-47.487
Plant-based substances

- **Khat – Eastern Africa**
  - Cathinone
  - 2006-105 tons, 2007-114 tons, 2008-1785 tons, 2009-196 tons, 2010-533 tons

- **Kratom – South-East Asia** (krathom, ithang, biak biak, ketum)
  - 24 tons seizures reported for 2010

- **Salvia divinorum – Latin America**
  - Seizures in other parts of the world (Russian Federation)
The story so far

- NPS global phenomenon
  - Ketamine- global use, multi-ton seizures
  - Synthetic cannabinoids- reports from all regions
  - Piperazines- “ecstasy” substitute, decline in established ATS markets but new markets in Asia
  - Synthetic cathinones- Europe, Americas, Latin America
  - Plant-based substances- khat most widespread, kratom and salvia spreading
Global cooperation on new psychoactive substances- CND resolution 55/1

- Commission on Narcotic Drugs, main policy-making body in the United Nations
- Resolution on synthetic cannabinoids
- First resolution on this issue 55/1: “Promoting international cooperation in responding to the challenges posed by new psychoactive substances”
Global cooperation on new psychoactive substances - CND resolution 55/1

- Member States are encouraged to:
  - monitor emerging trends in the composition, production and distribution of new psychoactive substances, patterns of use and share that information

- UNODC requested to:
  - enhance collection of NPS-related information,
  - share information
  - work towards creating compilation of NPS encountered by Member States
New psychoactive substances

- Current situation on NPS
- Pharmacological activity, potential toxicity, use, geographical spread,
- First global list of NPS on the market

Will be updated by 2013 based on Member States information
New psychoactive substances-

- Which substances have emerged in markets?
  - Synthetic cannabinoids
  - Synthetic cathinones
  - Piperazines (‘fake ecstasy’)

- Sources of NPS (Manufacture, packaging, tableting, distribution)

- Extent of use (use surveys, treatment centers)
Thank you!

globalsmart@unodc.org
www.unodc.org