



OAS | CICAD



INTER-AMERICAN DRUG ABUSE
CONTROL COMMISSION

CICAD

Secretariat for Multidimensional Security

SEVENTY-FOURTH REGULAR SESSION

December 11-14, 2023

Washington, D.C.

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UNODC

Scientific and Forensic Services

Tools and Services for Forensic laboratories



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United Nations Office on Drugs and Crime

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Scientific and Forensic Services

Tools and Services for Forensic laboratories



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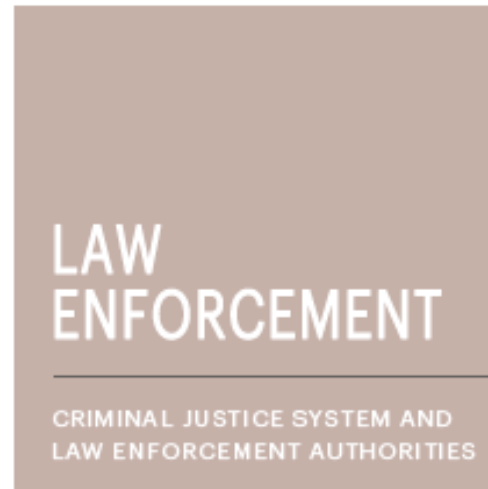
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UNODC LABORATORY
AND SCIENTIFIC SERVICE

Making Forensics Effective, Efficient & Relevant



Quality Assurance, Reference
standards, ICE programme



Drug kits, Crime scene, E-learning,
Training



Global SMART Programme, Research,
Early Warning Advisory

The role of UNODC Laboratory and Scientific Services is to:

- Improve the national forensic capacity and capabilities of Member States to meet internationally accepted standards and ensure they are available and accessible worldwide
- Increase the use of forensic science services, data and information for evidence-based operational purposes, strategic interventions and policy and decision-making.



Training in the United Nations Narcotics Laboratory





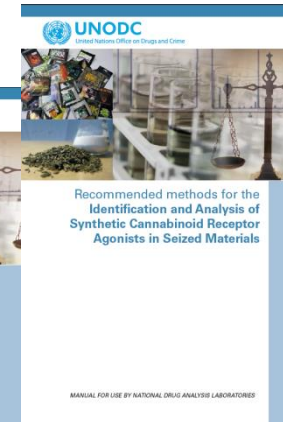
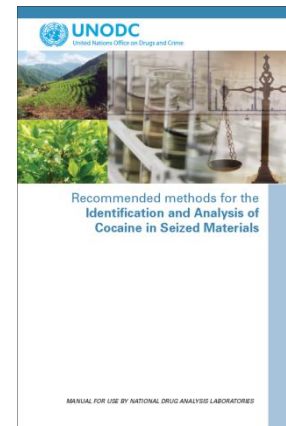
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UNODC support to forensic laboratories

- International Collaborative Exercises (ICE)
- Reference materials
- Manuals and guidelines on quality assurance and recommended methods for the analysis of drugs including selected new psychoactive substances (NPS)
- Expert advice, training and mentoring support





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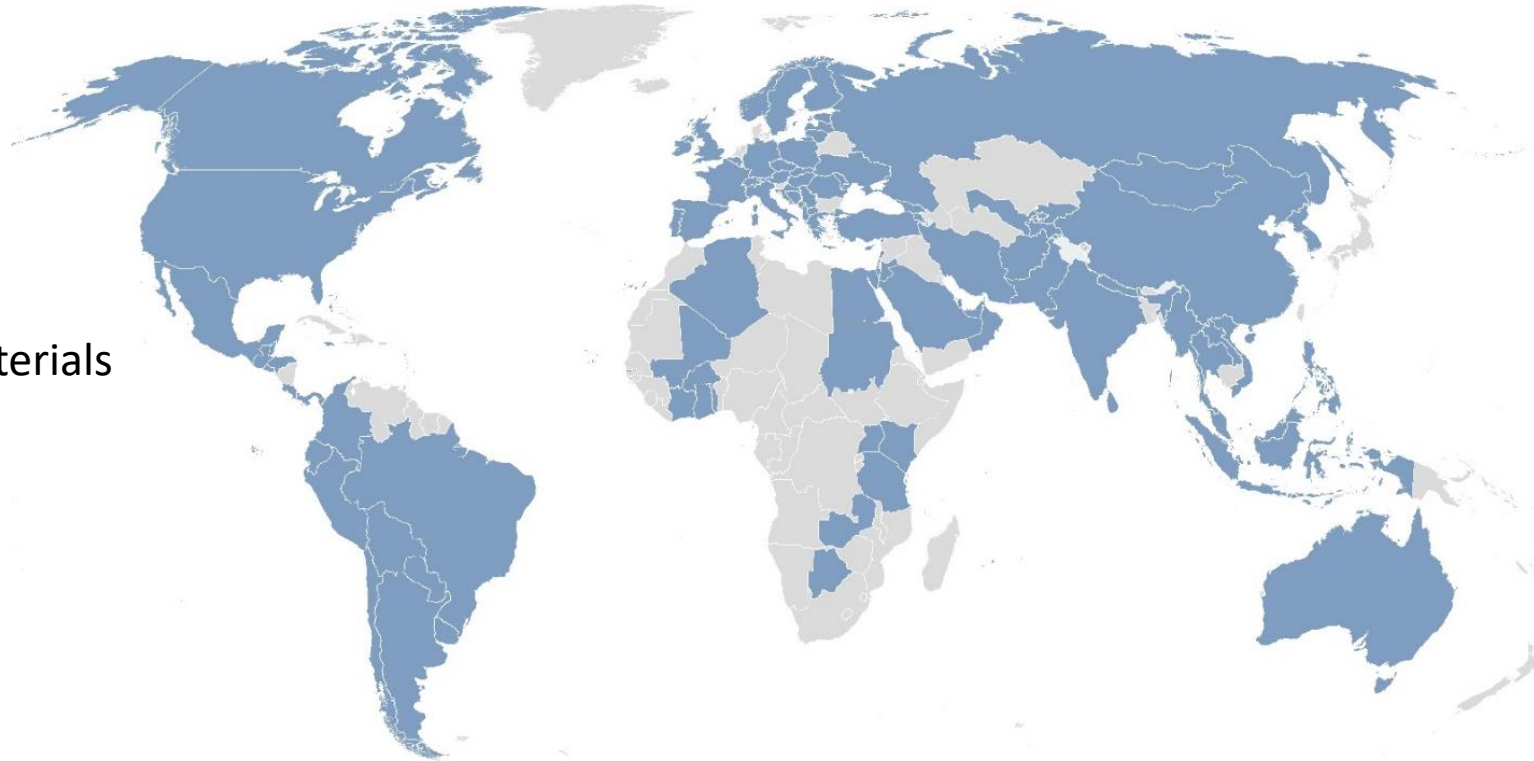
International Collaborative Exercises (ICE)

total for 2022:

310 laboratories

90 countries

3542 reference materials



- 33 laboratories from 20 African countries have participated in the programme
- Aim to understand challenges and overcome them to increase support of UNODC to laboratories



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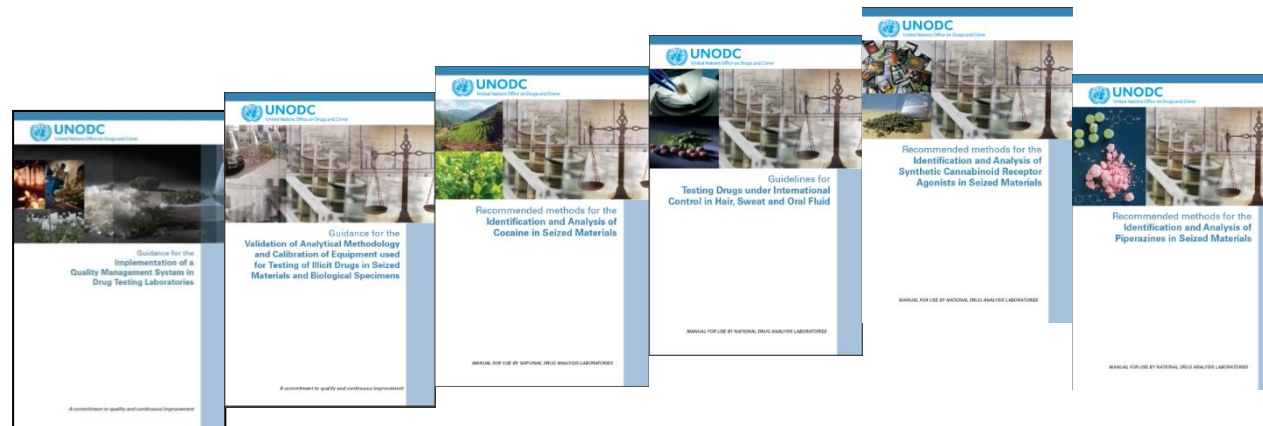
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UNODC manuals and guidelines

As part of its commitment to enhance the operational capacity of drug testing laboratories, to improve the quality of their performance, and to promote standardization of working practices, UNODC's Laboratory and Scientific Service initiated in 1984 the publication of a series of manuals for use by national drug testing laboratories.

Over 40 manuals in this series have been published and cover methods and approaches for the analysis and identification of the main groups of drugs under international control and selected NPS, in seizures and biological specimens respectively.





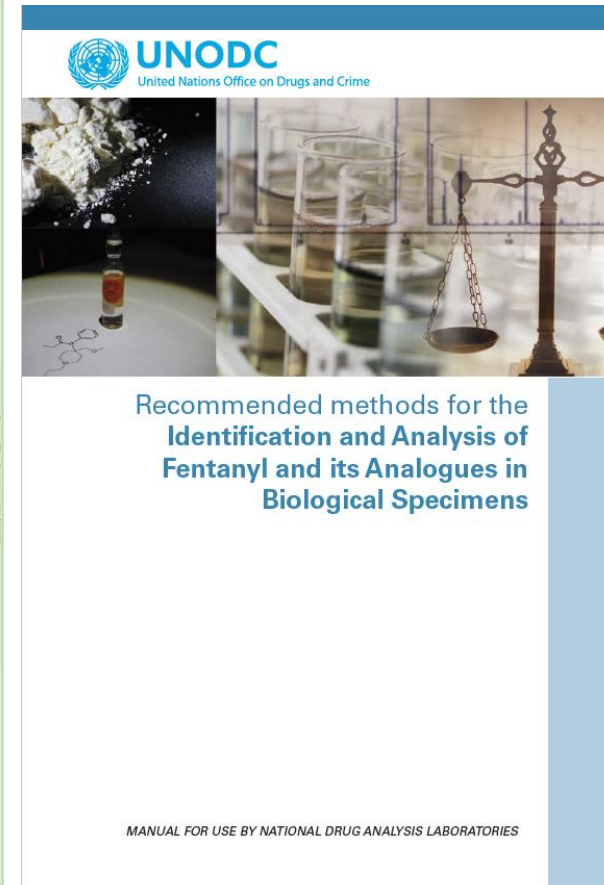
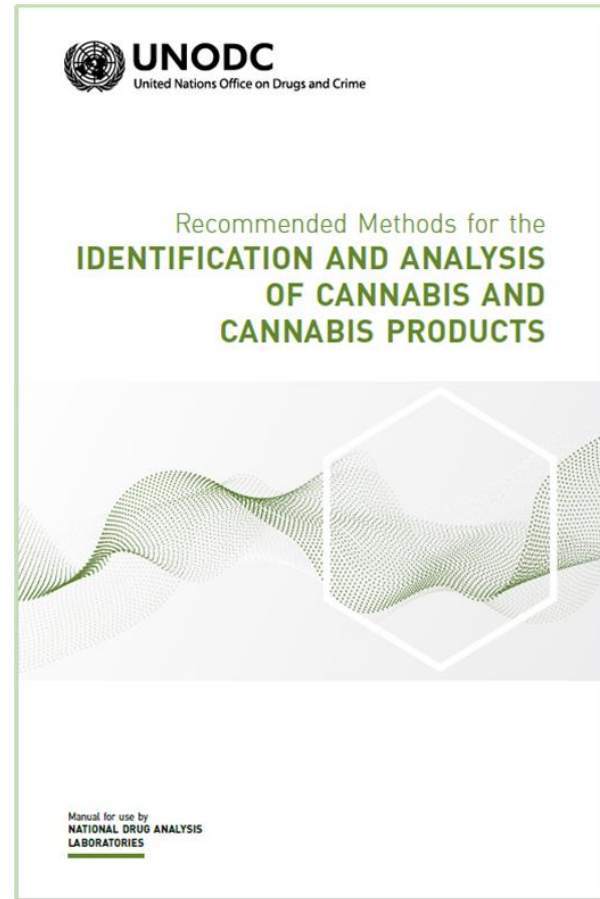
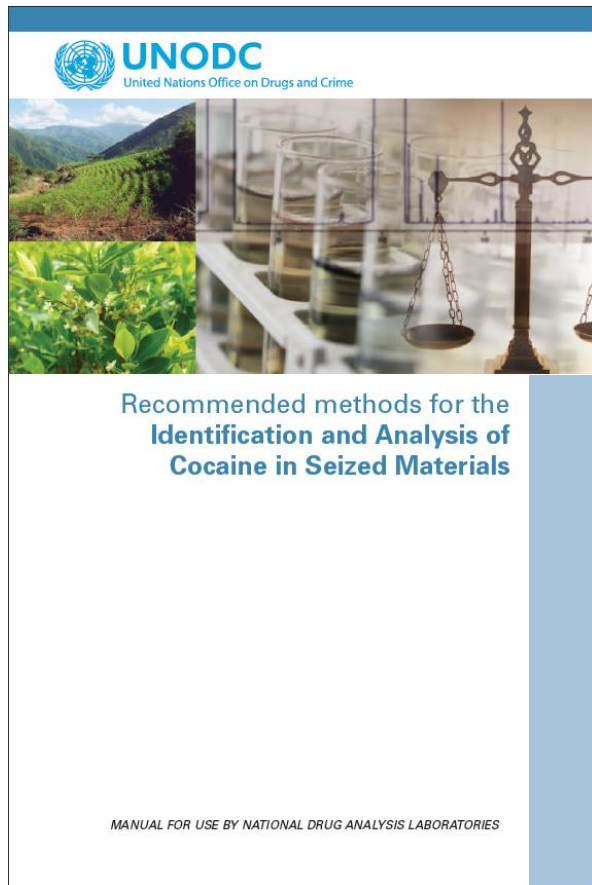
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Recommended methods for the analysis of drugs

- Seized materials
- Biological Specimens





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Recommended methods for the analysis of New Psychoactive Substances

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Recommended methods for the
**Identification and Analysis of
Piperazines in Seized Materials**

MANUAL FOR USE BY NATIONAL DRUG ANALYSIS LABORATORIES

UNODC
United Nations Office on Drugs and Crime

Recommended methods for the
**Identification and Analysis of
Synthetic Cannabinoid
Receptor Agonists in
Seized Materials**
(Revised and updated)

MANUAL FOR USE BY NATIONAL DRUG ANALYSIS LABORATORIES

UNODC
United Nations Office on Drugs and Crime

Recommended methods for the
**Identification and Analysis of
Synthetic Cathinones in
Seized Materials**
(Revised and updated)

MANUAL FOR USE BY NATIONAL DRUG ANALYSIS LABORATORIES



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Topics on Quality Management

The cover features the UNODC logo at the top left. Below it is a collage of images: a person in a lab coat, a close-up of a substance being processed, and a large pile of white crystalline powder. The title is centered in blue text, and the tagline is at the bottom.

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Guidance for the
**Implementation of a
Quality Management System in
Drug Testing Laboratories**

A commitment to quality and continuous improvement

The cover features the UNODC logo at the top left. Below it is a collage of laboratory images: glass beakers with colored liquids, a balance scale, and various lab equipment. The title is centered in blue text, and the tagline is at the bottom.

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Guidance for the
**Validation of Analytical Methodology
and Calibration of Equipment used
for Testing of Illicit Drugs in Seized
Materials and Biological Specimens**

A commitment to quality and continuous improvement

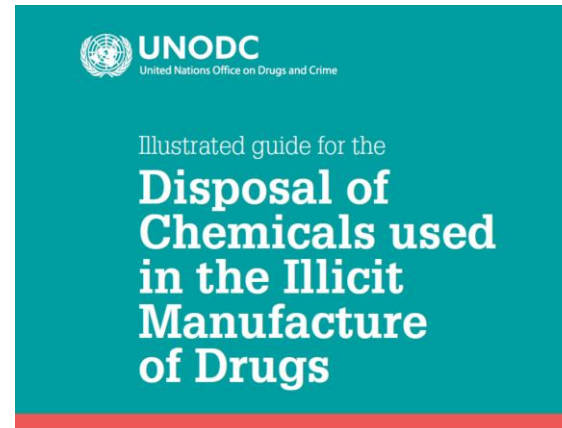
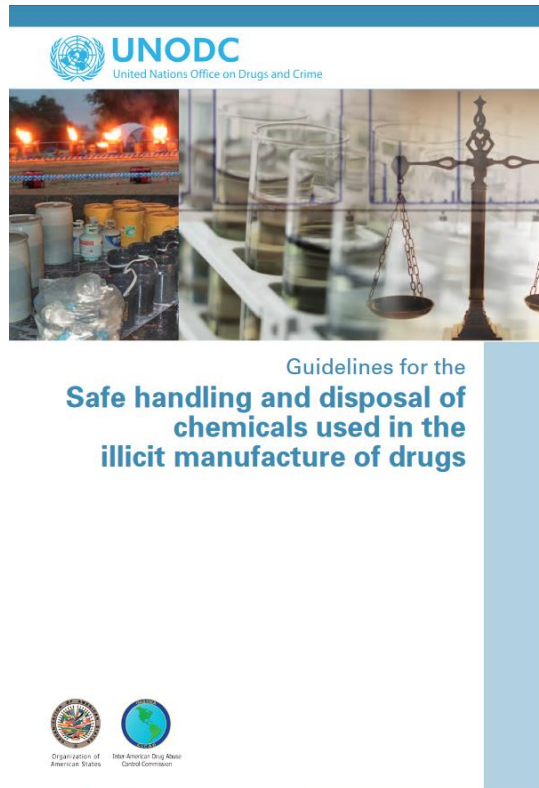


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UNODC LABORATORY AND SCIENTIFIC SERVICE

Safe handling and disposal of chemicals



LABORATORY AND SCIENTIFIC SERVICES



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<https://www.unodc.org/unodc/en/scientists/publications-drug-testing-laboratories.html>



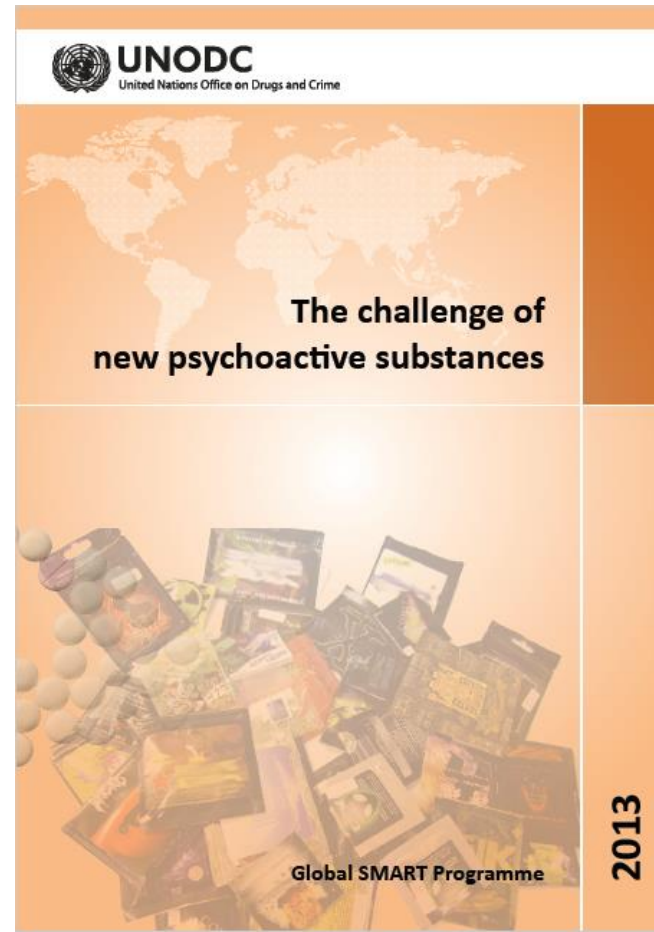
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New Psychoactive Substances

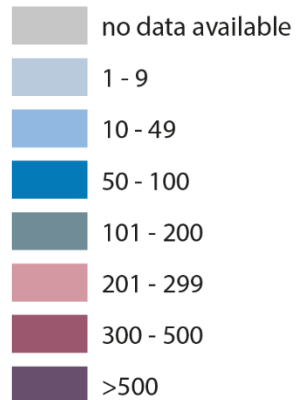
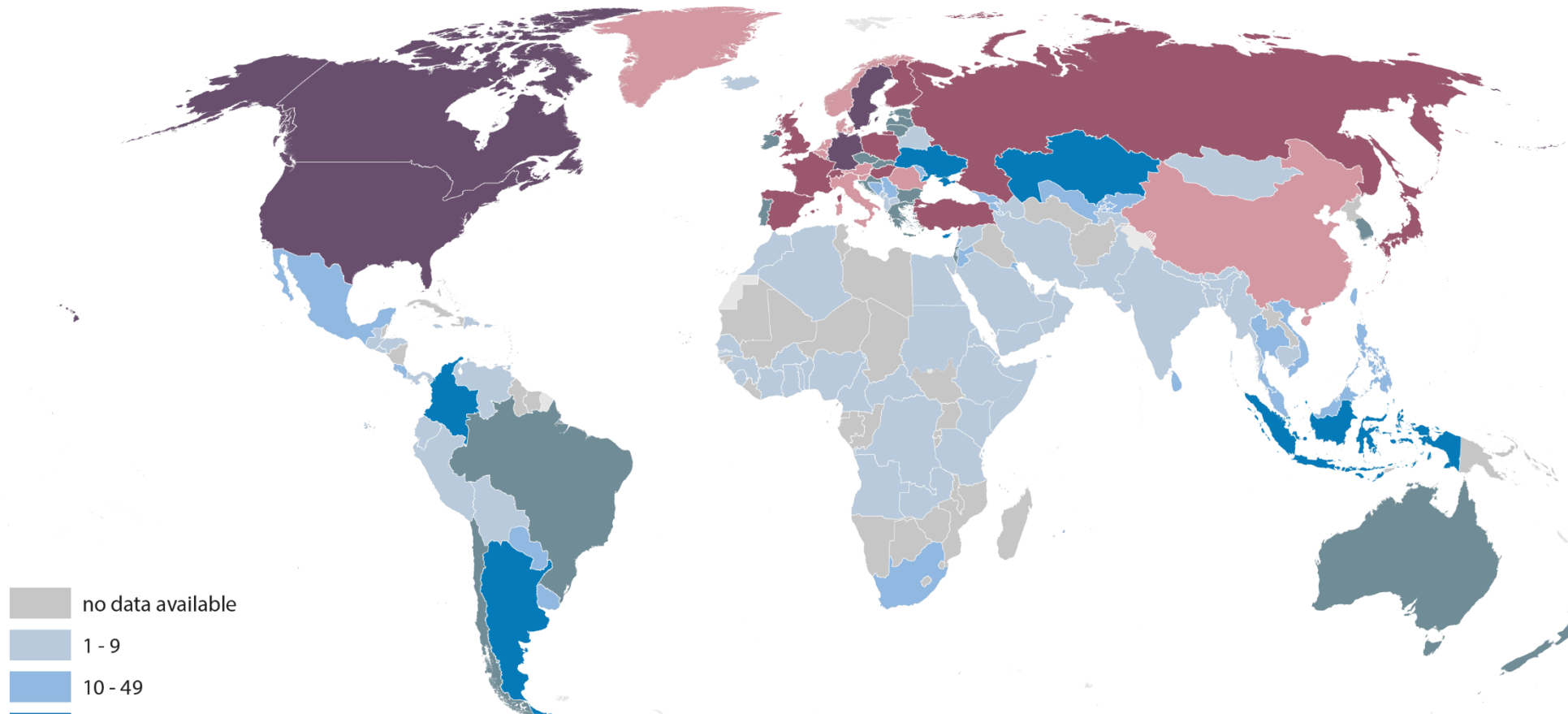
“Substances of abuse, either in a pure form or a preparation that are not controlled by the 1961 Convention on Narcotic Drugs or the 1971 Convention on Psychotropic Substances, but which may pose a public health threat”



- In 2013, 234 substances were under international control in the 1961 and 1971 conventions.
- 254 individual NPS were identified in that year



Number of NPS reported by countries, 2009-2023



Currently 1230 unique substances have been reported to UNODC by 141 countries and territories.

14 countries have identified more than 300 substances

101 countries have identified less than 50

The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties. Final boundary between the Republic of Sudan and the Republic of South Sudan has not yet been determined. Final status of the Abyei area is not yet determined

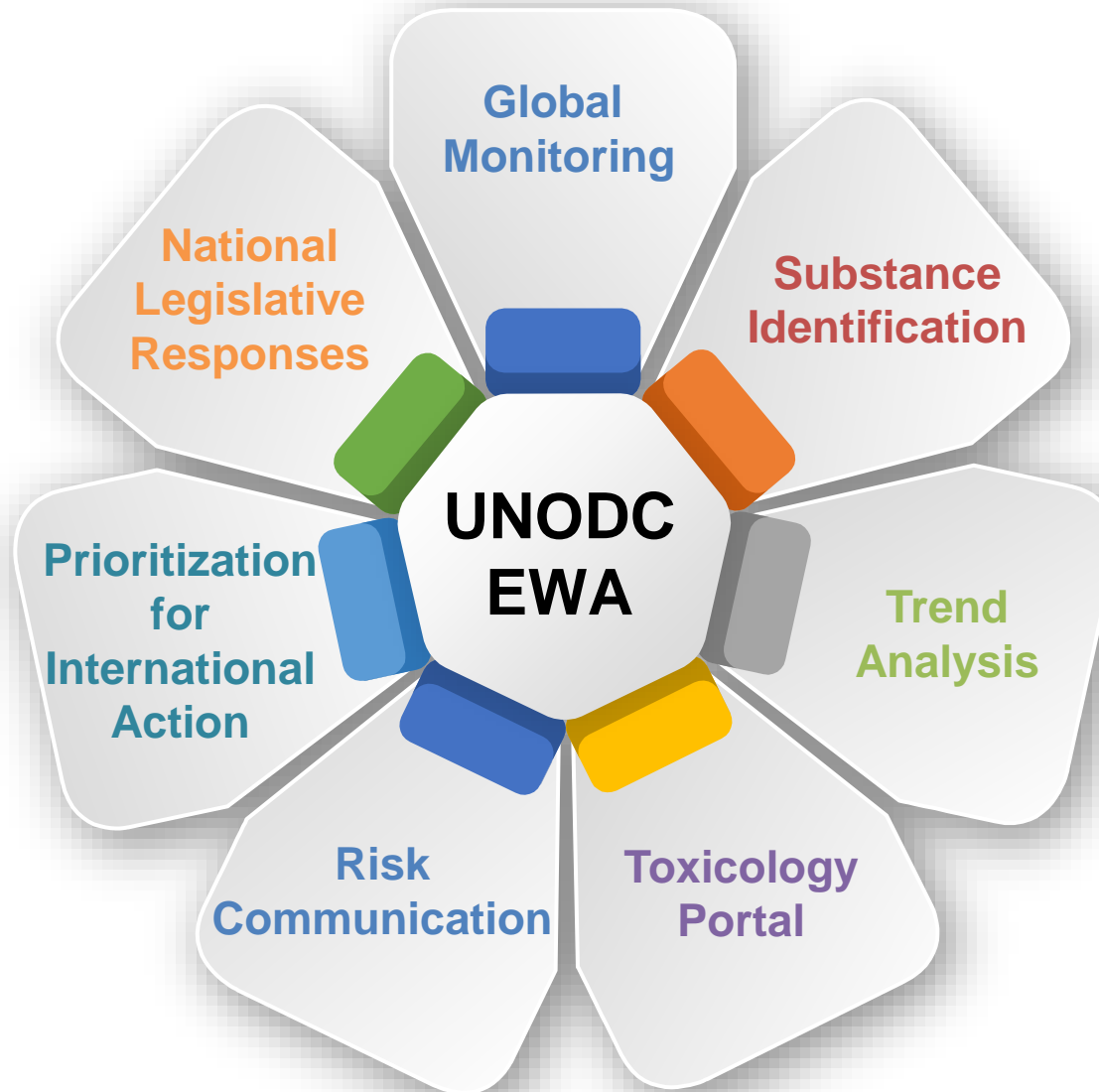


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UNODC Early Warning Advisory on New Psychoactive Substances





What are New Psychoactive Substances?

NPS are substances of abuse, either in a pure form or a preparation, that are not controlled under the Single Convention on Narcotic Drugs of 1961 or the 1971 Convention, but that may pose a public health threat. In this context, the term "new" does not necessarily refer to new inventions but to substances that have recently become available. NPS that have been placed under international control since 2014 continue to be included under the term NPS to enable times series analysis.

Effect Groups and Structural Groups

Within the UNODC EWA, NPS are classified based on the pharmacological effect that it exerts on the central nervous system - **effect group classification** (eg. stimulants, classic hallucinogens, dissociatives etc.), and based on similarities in chemical structure - **structural group classification** (eg. synthetic cathinones, fentanyl analogues, benzodiazepines etc.).

Note: Not all NPS that have been reported to UNODC have been assigned to an effect group classification. Substances with similar chemical structures do not necessarily have similar pharmacological effects. Plant-based substances were excluded from the effect group classification as they usually contain a large number of different substances some of which may not be known and whose effects and interactions are not fully understood.

Number of NPS reported

1212

Number of countries/territories that reported NPS

141

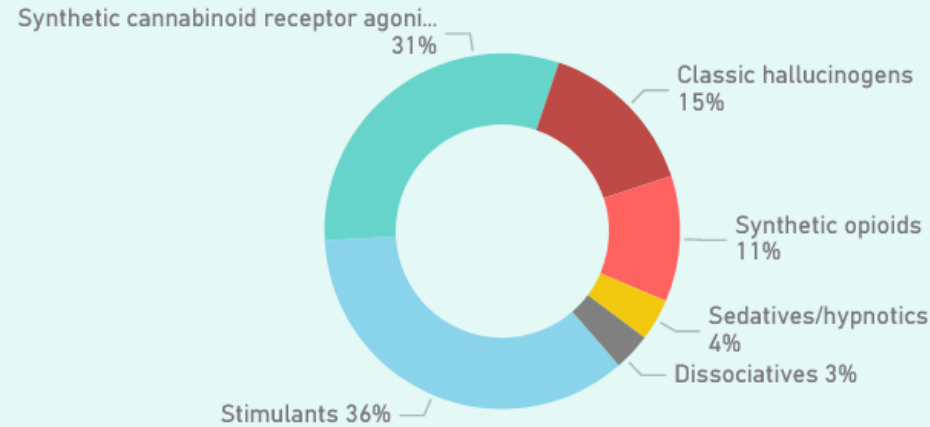
Region

All

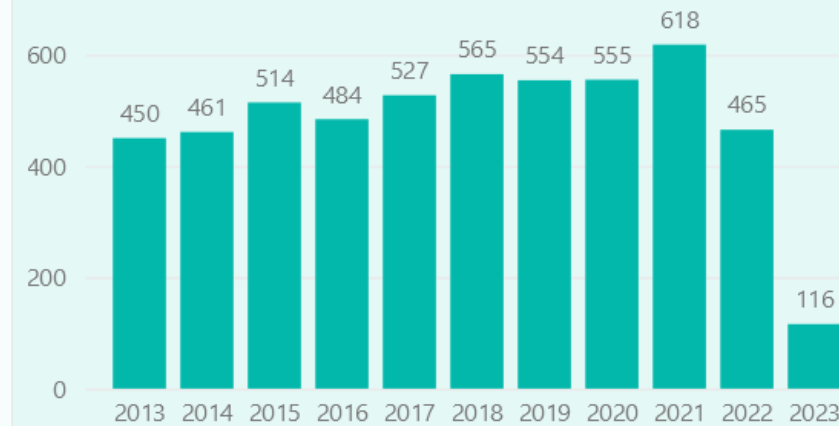
2013

2023

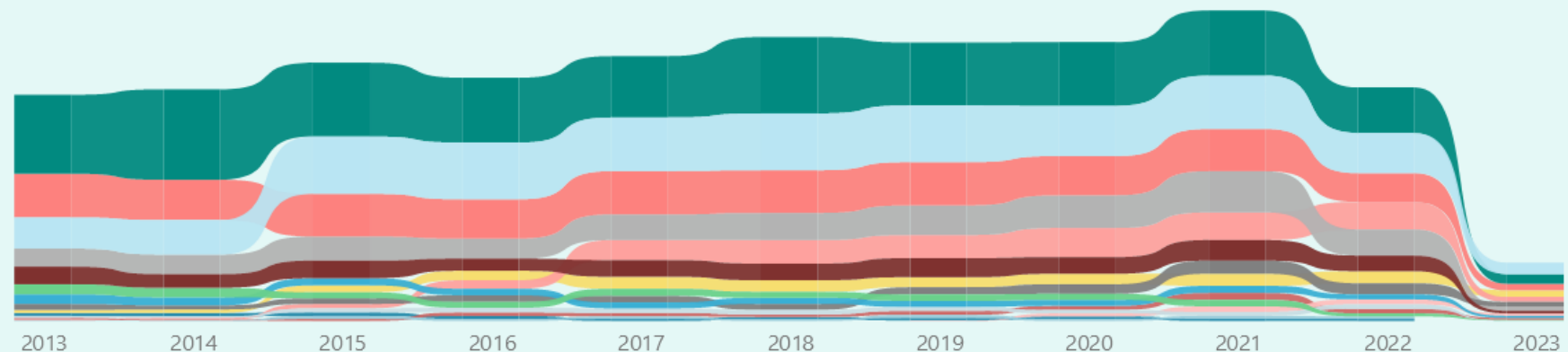
Distribution of NPS reported, by effect group



Total number of NPS reported, by year*

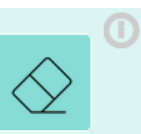


Overall trend in the number of NPS reported within each structural group, by year*



Structural Group ● Aminoin... ● Benzodiaz... ● Fentanyl ... ● Lysergami... ● Nitazenes ● Other su... ● Phencycli... ● Phenethyl... ● Phenidates ● Phenmetr...

*Note: Data for 2022 and 2023 are preliminary



Filters

Region

All ^

- Africa
- Asia
- Europe
- Northamerica
- Oceania
- Southamerica

Number of NPS reported in 2022*

465

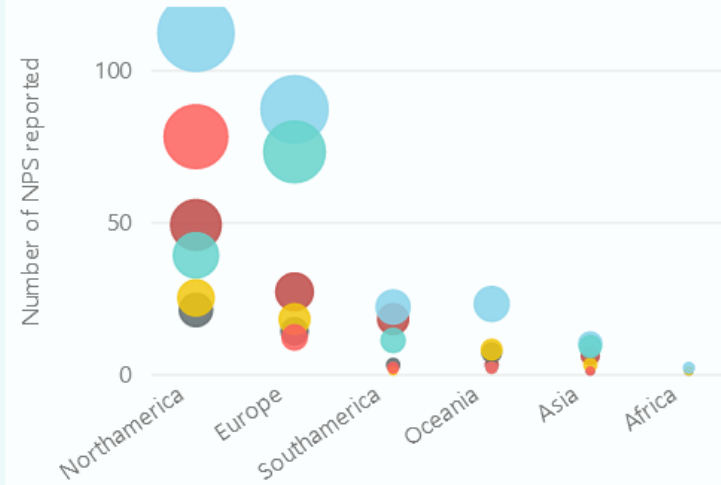
Number of NPS reported for the first time in 2022 (globally)

42

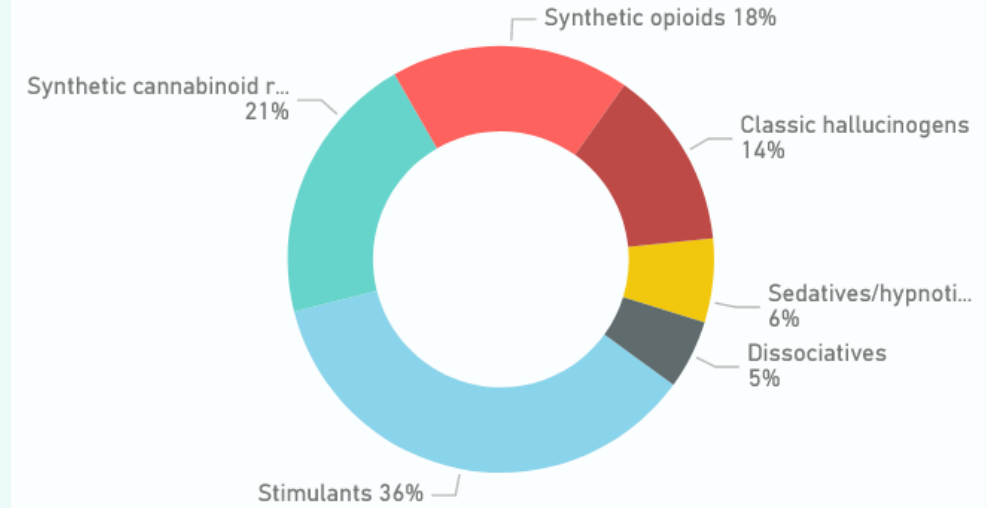
Number of countries/territories that reported NPS in 2022*

77

Number of NPS reported in 2022 within each effect group, by region



NPS reported in 2022, by effect group*

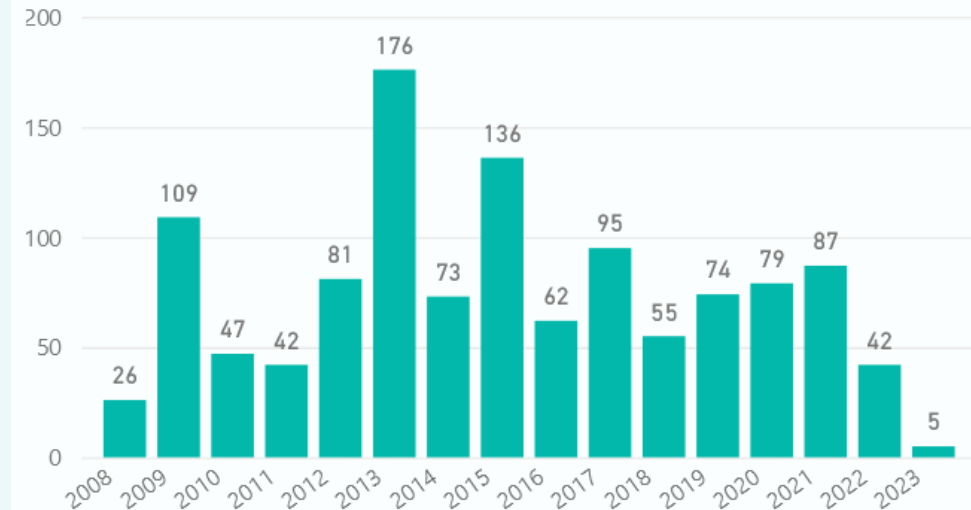


*Note: Values will vary depending on the

NPS reported for the first time in 2022*

Substance Name	Effect Group	Structural Group	First report (global)
2-(4-Methylpiperazin-1-yl)-1-phenylpropan-1-one	Stimulants	Synthetic cathinones	2022
2-Methyl-alpha-PHiP	Stimulants	Synthetic cathinones	2022
3,4-Pr-PipVP	Stimulants	Synthetic cathinones	2022
Iso-(meta-methyl-propcathinone)	Stimulants	Synthetic cathinones	2022
N-Cyclohexylbutylone	Stimulants	Synthetic cathinones	2022
4en-PDMB-4en-PINACA	Synthetic cannabinoid receptor agonists	Synthetic cannabinoids	2022
ADB-4en-P-5Br-INACA	Synthetic cannabinoid receptor agonists	Synthetic cannabinoids	2022
ADB-5'Br-BUTINACA	Synthetic cannabinoid receptor agonists	Synthetic cannabinoids	2022

Number of new NPS reported for the first time each year (global)



Home



Substances



Latest Trends



Regional Focus



Scheduled NPS

UNODC Early Warning Advisory Tox-Portal

2012 2023 Years

Navigation



Filters

- Type of Event
All
- Effect Group
All
- Substance Group
All
- NPS identified
All

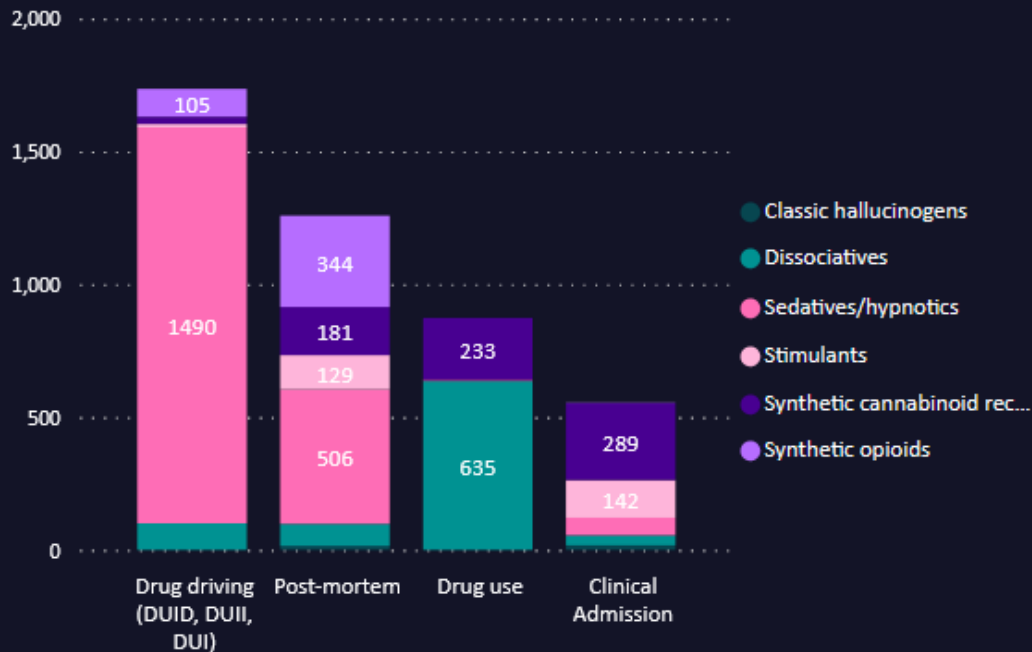
NPS identified	Effect group	Case count	Matrix	Concentration	Units
Acetylfentanyl	Synthetic opioids	1	Unknown	28,000.00	ng/mL
Ketamine	Dissociatives	1	Urine	27,229.00	ng/mL
4-Fluoromethamphetamine	Stimulants	1	Urine	26,000.00	ng/mL
4-Fluoromethamphetamine	Stimulants	1	Urine	25,000.00	ng/mL
α-Pyrrolidinovalerophenone	Stimulants	1	Urine	23,000.00	ng/mL
Ketamine	Dissociatives	1	Blood	21,710.00	ng/mL
beta-keto-N,N-dimethylbenzodioxolylbutanamine	Stimulants	1	Blood	16,500.00	ng/mL
4-Fluoromethamphetamine	Stimulants	1	Urine	14,000.00	ng/ml

5533
Total number of cases

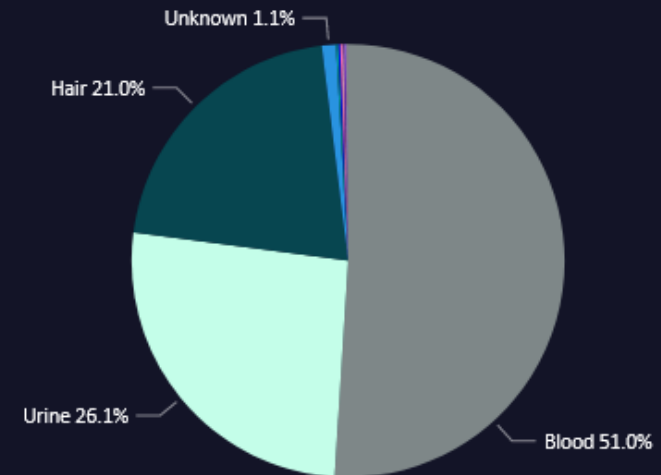
191
Individual NPS identified

31
Number of countries

Effect groups reported across main toxicology case types



Proportion of cases with NPS by matrix





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Thank you!

UNODC - Making the world safer from drugs, crime and terrorism

- Email: unodc-lab@un.org