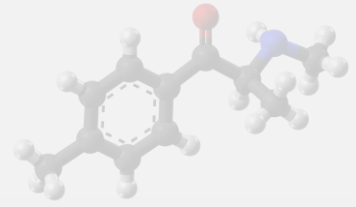


New psychoactive substances & patterns of use in detention settings

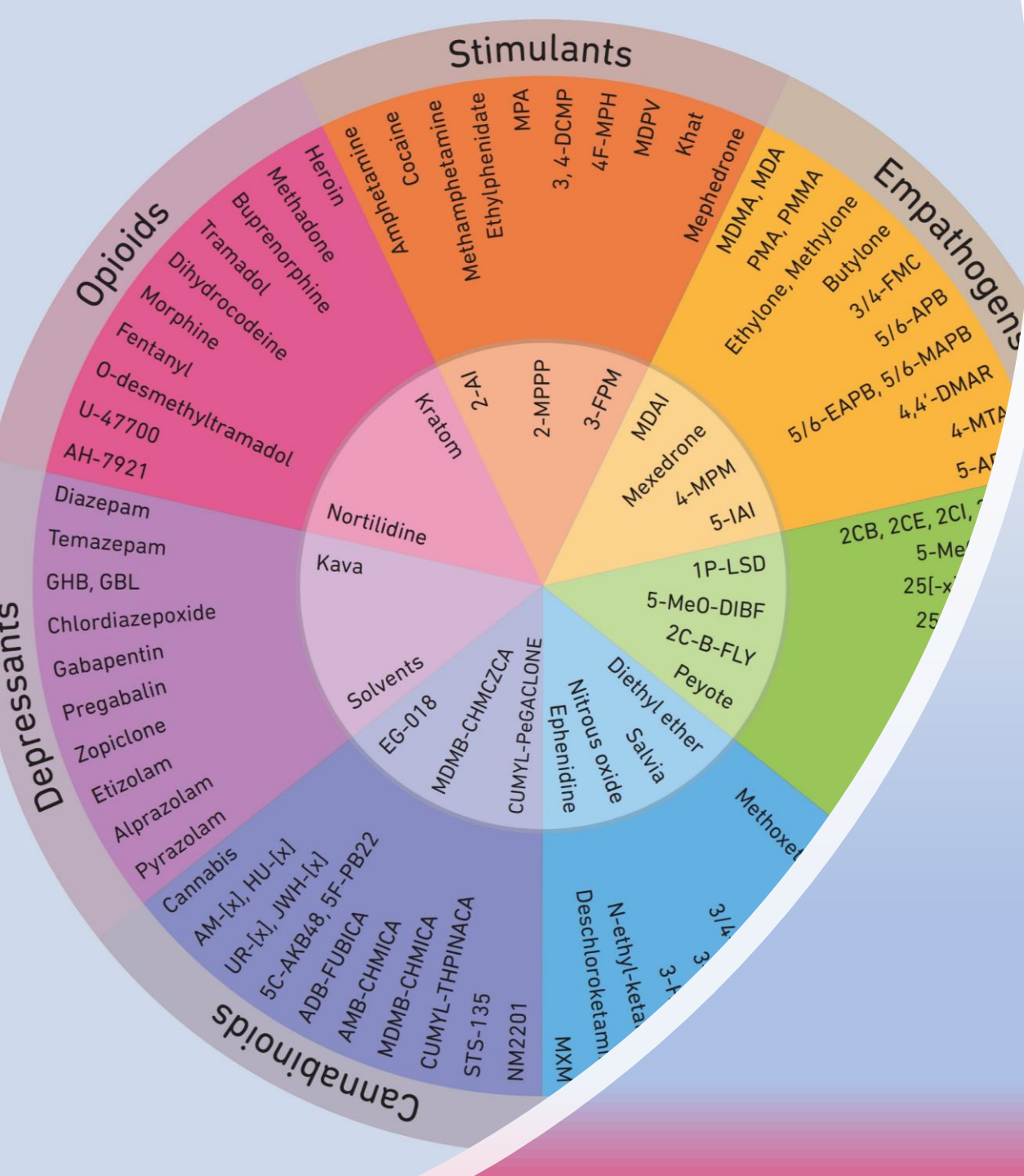
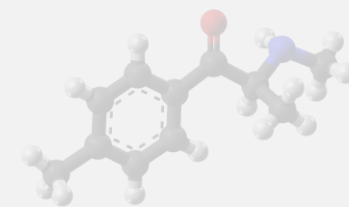
Robert Teltzrow, Principal Project Consultant,
Pompidou Group, Council of Europe

19. February 2020, Republic Event Hall

Content of Presentation

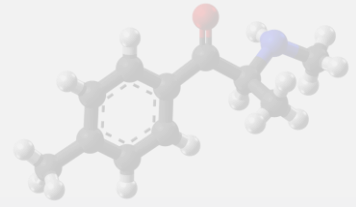


1. Definition of NPS
2. Prevalence of NPS in prison
3. Effects and harms of NPS
4. Responses to NPS use in prison
5. Conclusions and discussion

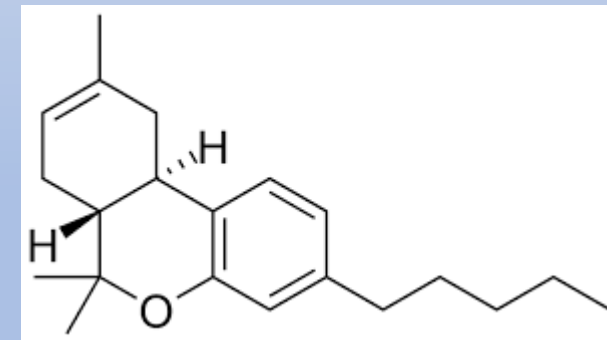
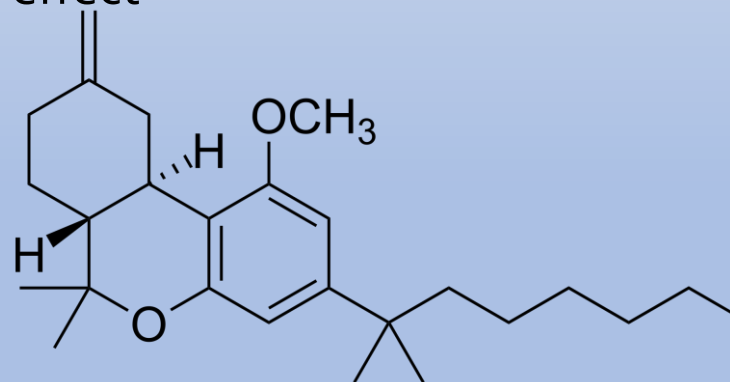
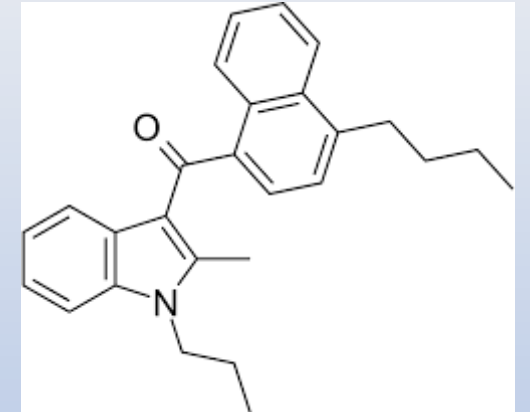
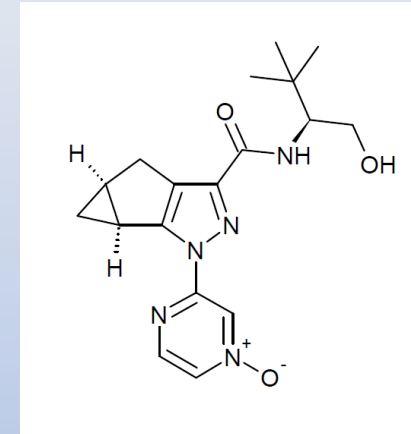


Defining NPS

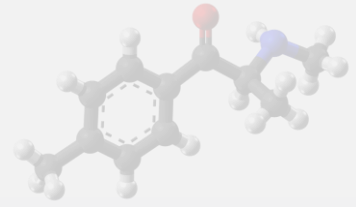
Types of classifications



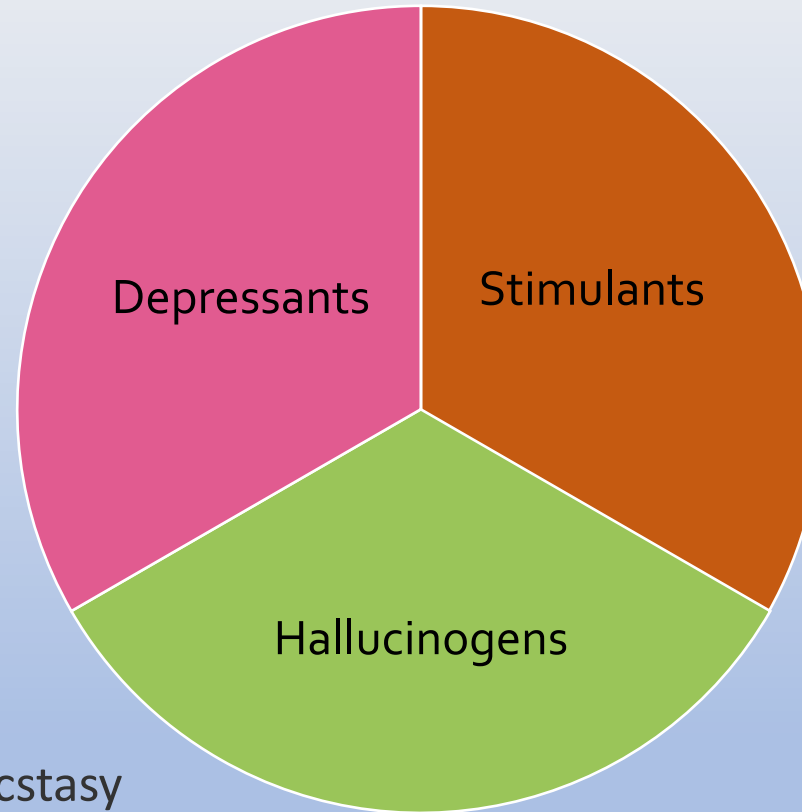
- Chemical similarities
- Source of the substance (synthetic or plant)
- Uses (medicinal or recreational)
- Legal definitions (legal/illegal/decriminalised)
- Effects on the mind and body (the specific effect on the central nervous system)



Effects on mind and body



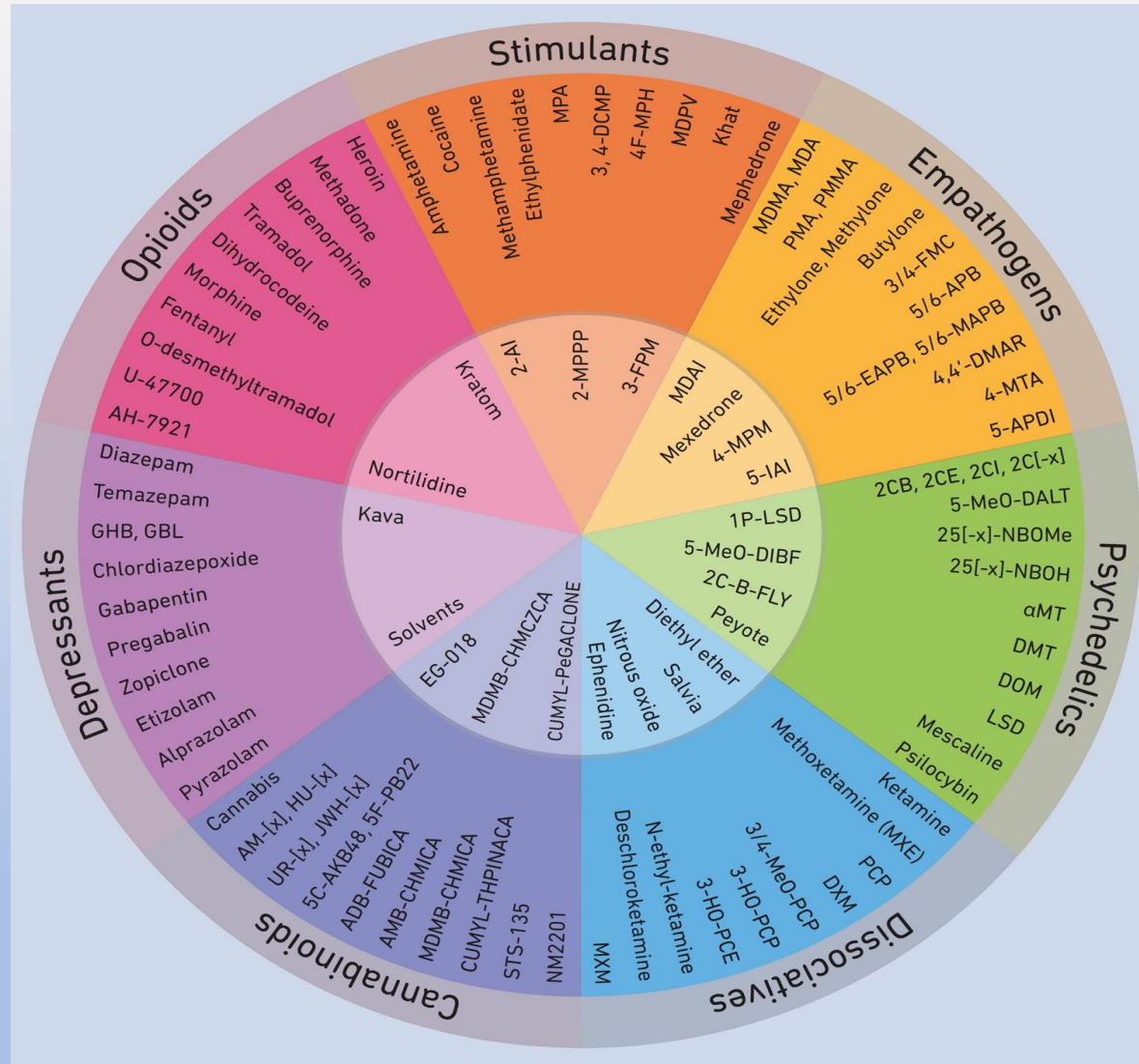
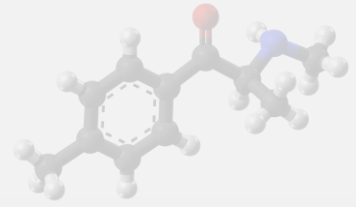
- Alcohol
- Opiates
- Cannabis
- Sedatives
- Glues, solvents



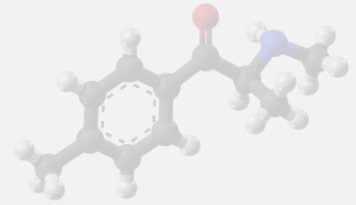
- Caffeine
- Nicotine
- Amphetamines
- Ecstasy
- Cocaine

- Ecstasy
- Mescaline
- High doses of cannabis
- LSD
- Psilocybin / Magic Mushrooms

Drug Wheel includes NPS



Old PS and new-PS / legal highs



Traditional psychoactive (illicit) substances

Opium



Heroin



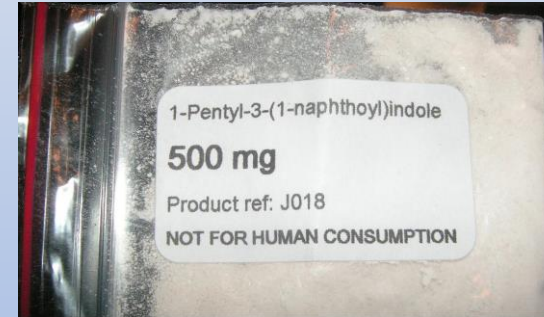
MDMA / XTC



Derived from plants, semi-synthetic or synthetic

New psychoactive (legal) substances

JWH-018

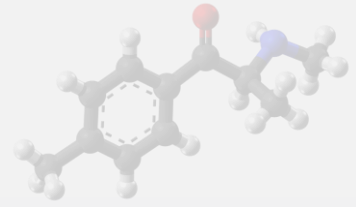


Mephedrone



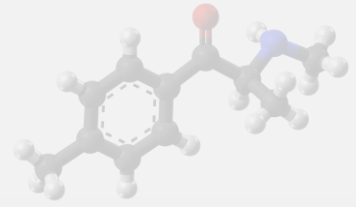
Synthetic

Definition NPS

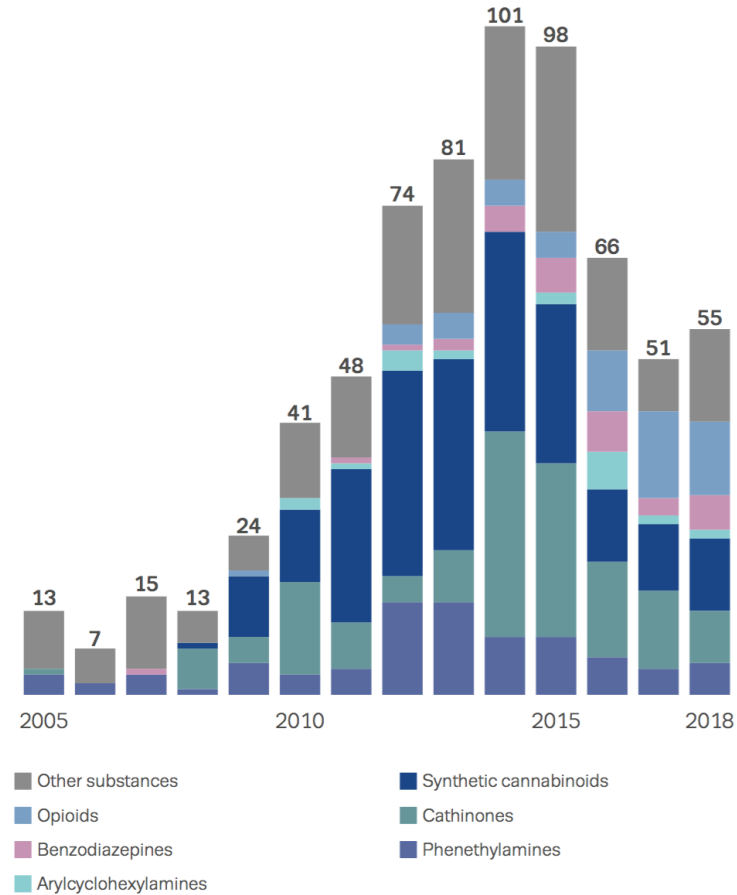


*NPS are "Narcotic drugs or psychotropic substances made available or used from the early to mid-2000s for their psychoactive properties. **Not scheduled or have only been listed since 2015** under the international drug control conventions of 1961 and 1971, and could pose similar threats to public health as do substances scheduled under these conventions. We also focus on **synthetic substances** rather than those derived from plants."* (Peacock A. et al., The Lancet, 2019)

NPS reported to EMCDDA



Number and categories of new psychoactive substances notified to the EU Early Warning System for the first time, 2005-18



- By 2018 more than 730 NPS are monitored by the EMCDDA
- Decrease of new substances reported to EMCDDA since 2015
- Main class of substances reported are synthetic cannabinoids and cathinones

Seizures of NPS

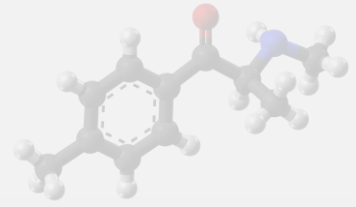
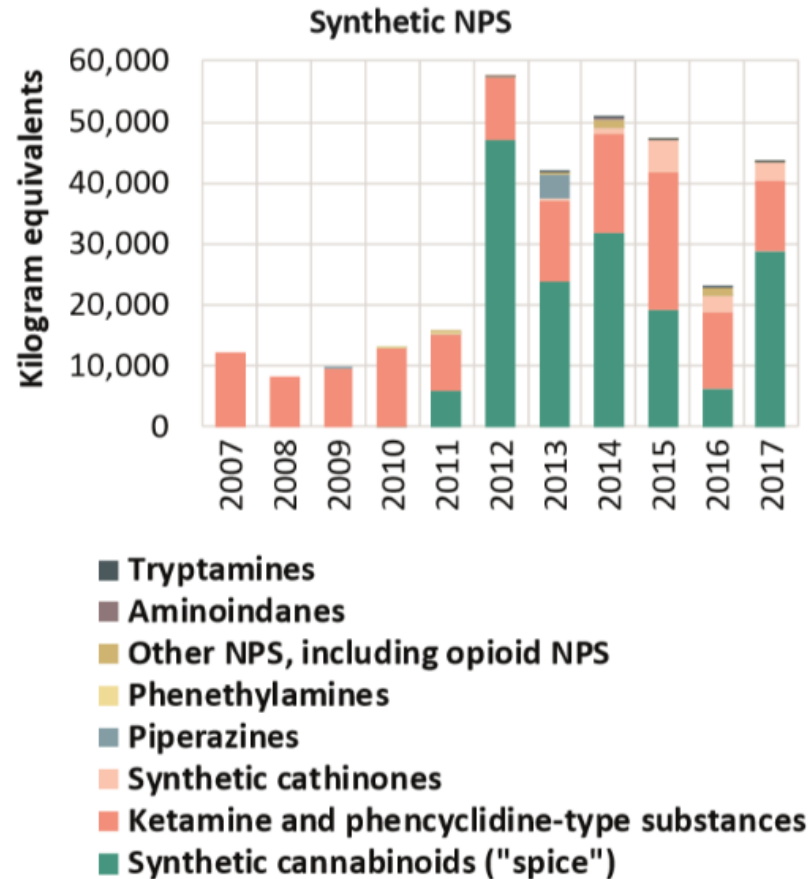


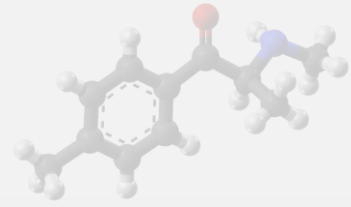
Figure 1: Global quantities of synthetic NPS seized, 2007-2017



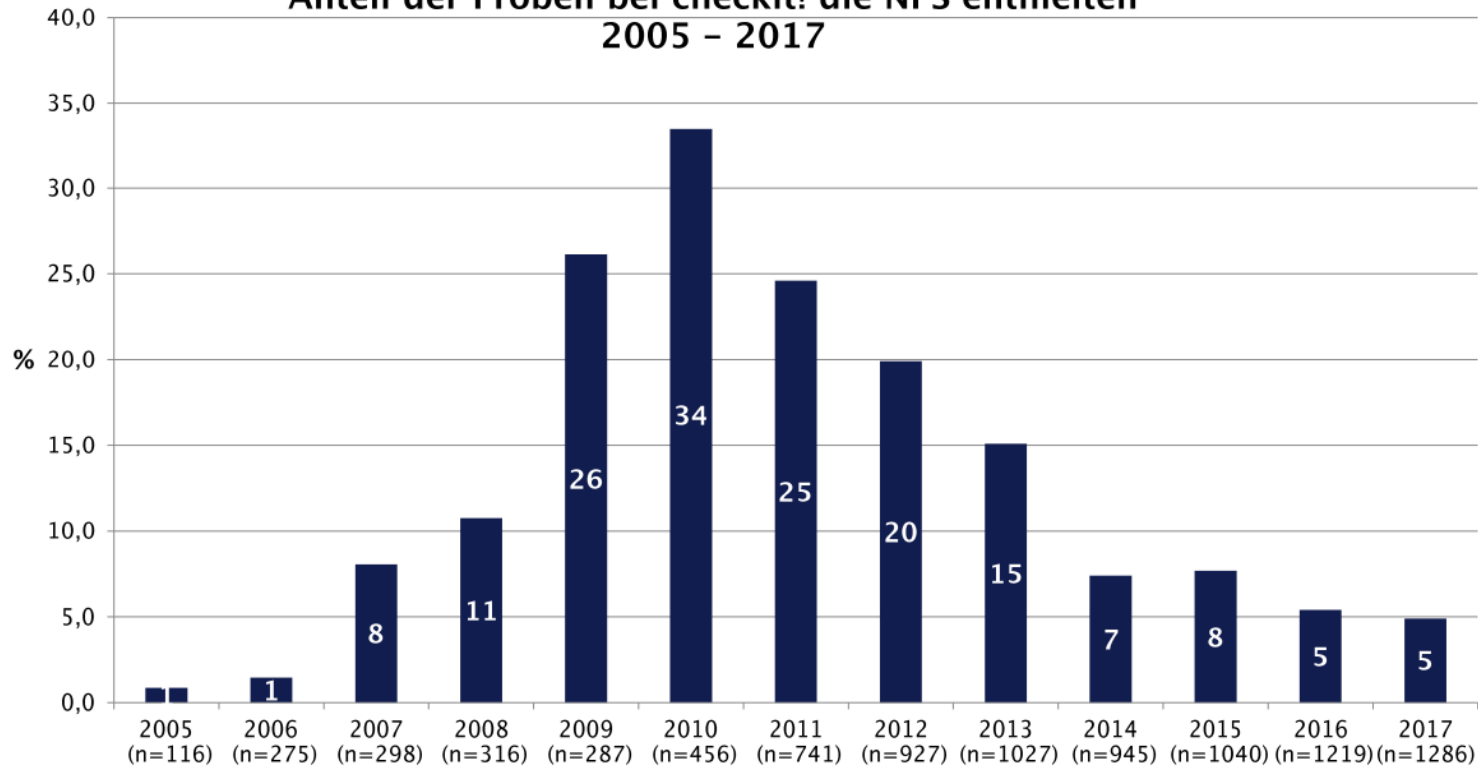
Source: UNODC, responses to annual report questionnaire (World Drug Report 2019).

- New psychoactive substances are often produced in bulk quantities in China and then shipped to the EU and US
- Seizures of new psychoactive substances are typically dominated by Ketamine-type substances, synthetic cannabinoids and cathinones

Example Austria



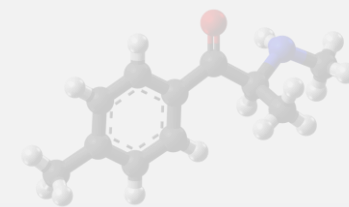
Anteil der Proben bei checkit! die NPS enthielten
2005 – 2017



Source: *checkit!*, Suchthilfe Wien gGmbH

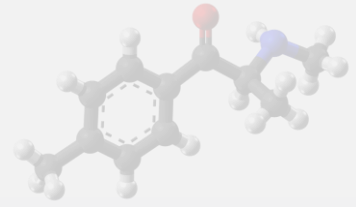
- 2008: Austrian health experts and authorities identify JWH-018 in herbal smoking mix.
- First regulation of legal highs via Medical Products act (around 2010)
- New law on NPS (1 December 2012) bans classes of psychoactive chemical substances
- Only some NPS survived the transition from the grey market to the black market (mainly synthetic cannabinoids and cathinones, e.g. mephedrone)

Number of probes containing NPS tested by Drug Checking service

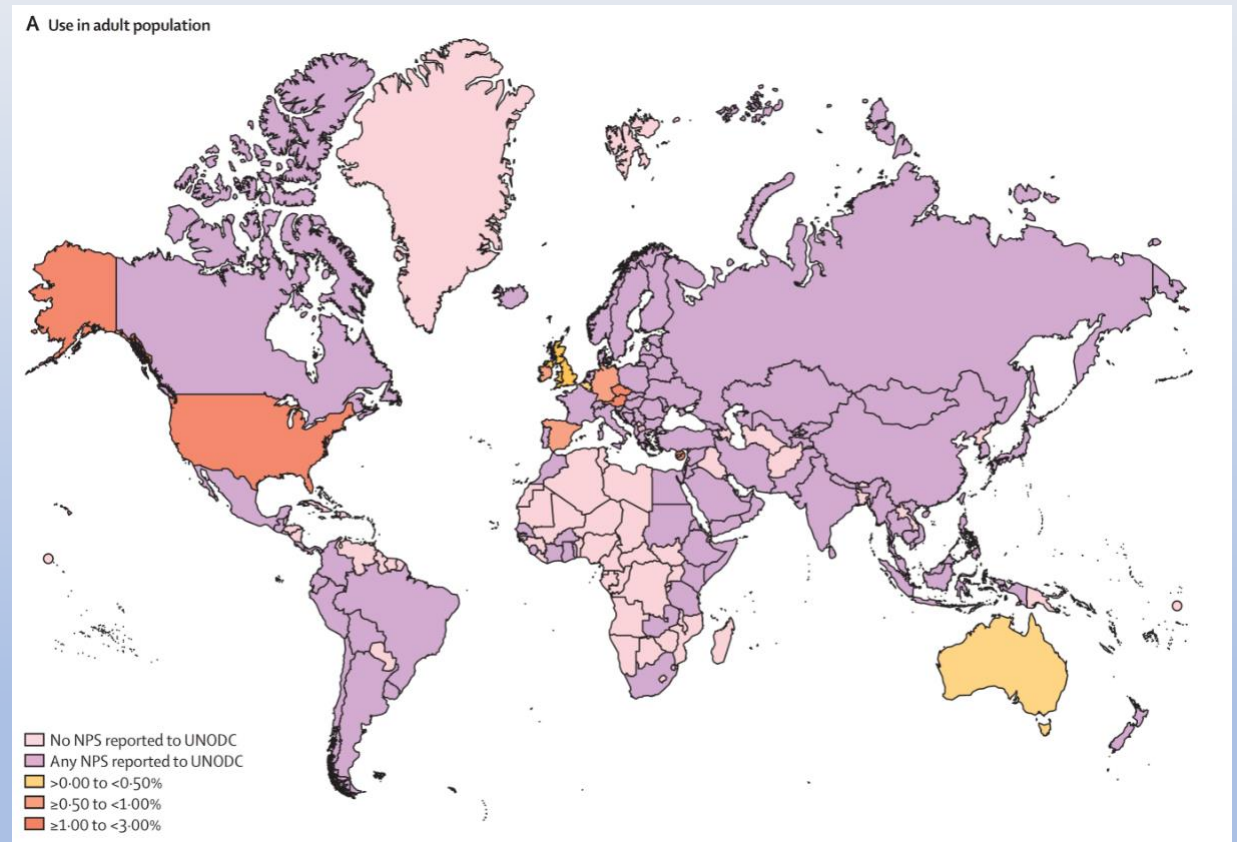


Prevalence of NPS use in prison

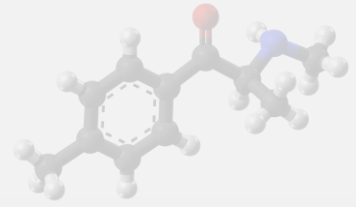
Prevalence of NPS use



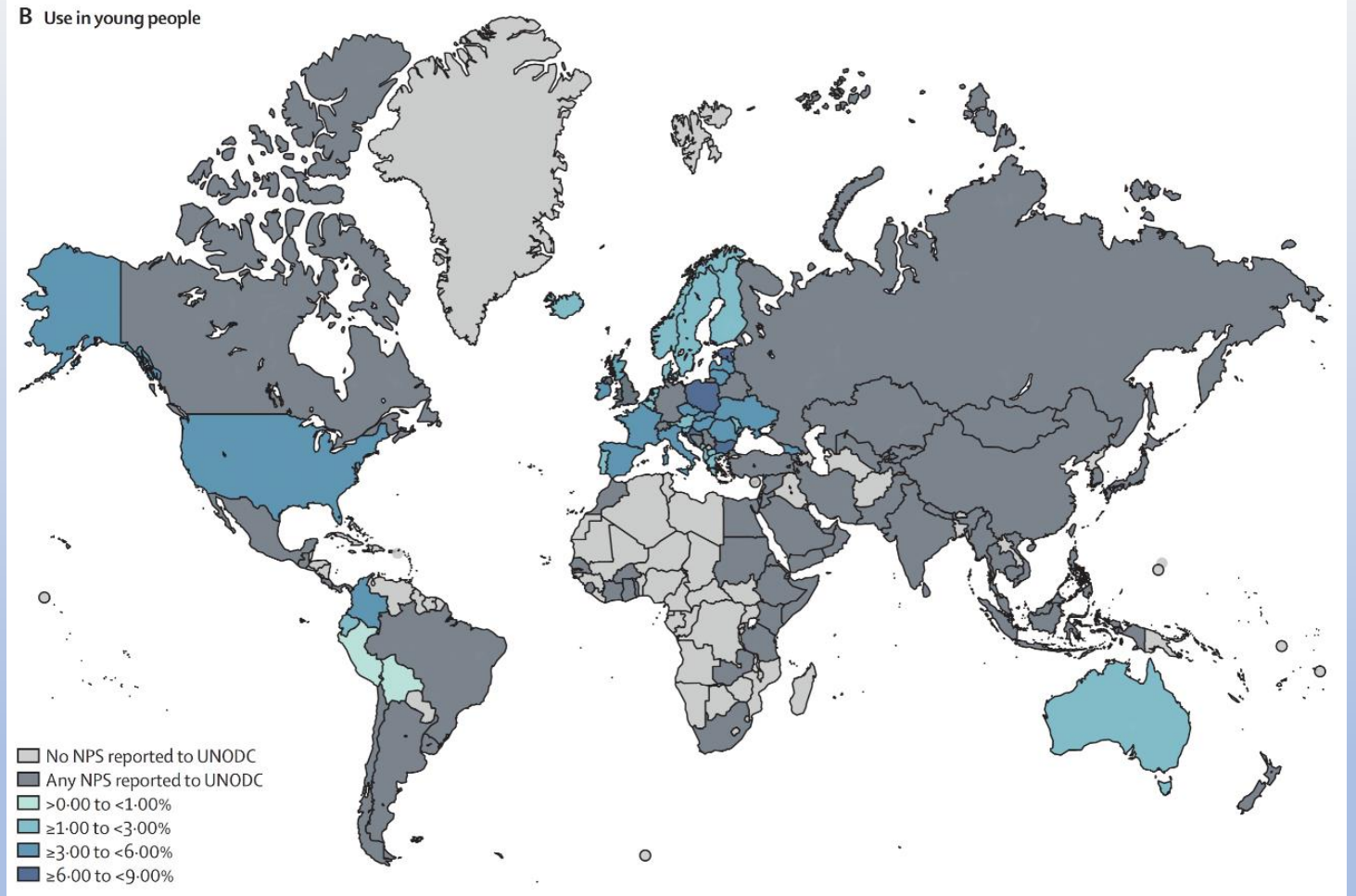
- Very low compared to other more established illicit drugs in the adult population: 0-3% (last 12 months)
- Lower than use of cannabis (prevalence in some countries up to 15%)
- Higher prevalence of NPS use in 2018: Czech Republic, Austria, Ireland, Spain or US.



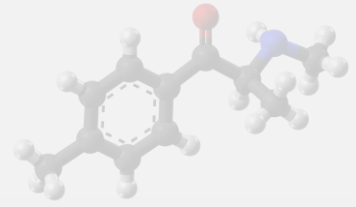
Higher prevalence in some groups



- Young people (Prevalence 0-6%)
- People who are homeless
- People who inject drugs
- Men who have sex with men
- People who are incarcerated

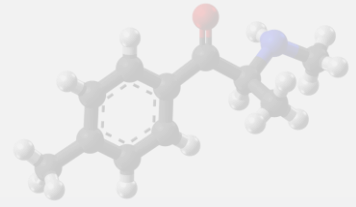


Drug use in prison



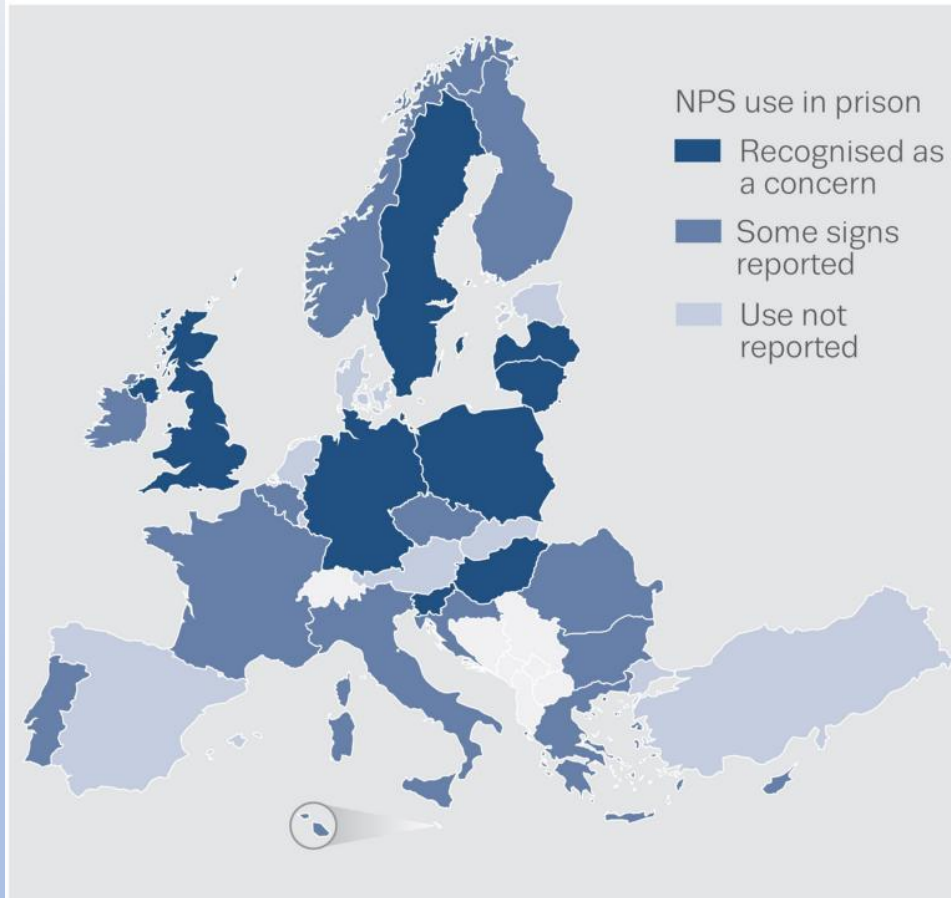
- People in prison higher lifetime rates and more harmful patterns of use
- Illicit drugs are widely available in most prisons
- Co-morbidities: mental illness + SUD & coexistence of complex needs
- Rational: injecting maximizes the effect of a minimal amount of drugs and is not as easily detectable as smoking





NPS use in European Prisons

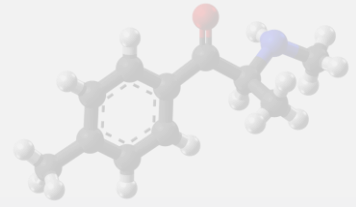
NPS use among prisoners in the European Union, Norway and Turkey



Infographic: EMCDDA 2018

- Reports about NPS use among prisoners in 22 European countries.
- NPS use in prison settings is an issue of concern in Germany, Hungary, Latvia, Lithuania, Poland, Slovenia and Sweden (8 countries).
- Anecdotal reports of NPS use in Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Finland, France, Greece, Ireland, Italy, Malta, Portugal, Romania and Norway (14 countries).
- For other European countries: either no use or no data

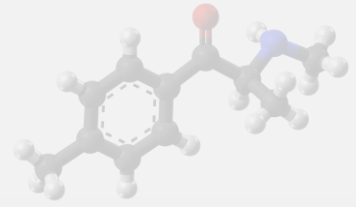
Why do prisoners use NPS?



- Strong & „new“ effects
- Difficult to detect in drug test
- Easy to smuggle
- Less expensive than most other drugs
- All the other reasons: drug dependence, boredom, substitution, self-medication



Types of NPS found in prison



Synthetic cannabinoids (“spice”): JWH-007, AM-2201, UR-144 etc

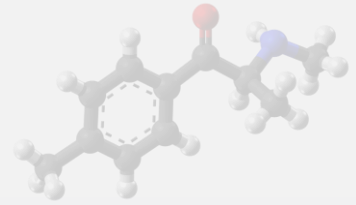
Synthetic cathinones (“bath salts”): MDPV, mephedrone, and methylone

New synthetic opioids: fentanyl derivatives and non-fentanyl derived novel synthetic opioids such as U4 or “Fake morphine”, AH-7921

New benzodiazepines: diclazepam, etizolam, flubromazolam, flunitrazolam and fonazepam



Schmuggling into prison



Traditional routes to smuggle drugs into prisons:

- Visitors; guards; inmates (day-release)
- Throwing over the walls
- Hidden in goods being sold in shops
- Animals (rare)

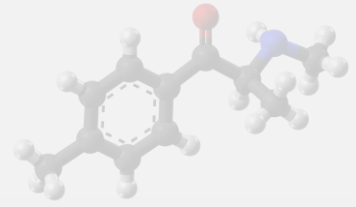
Newer routes:

- Drones
- **Spayed on papers, tobacco or cloth**



http://www.emcdda.europa.eu/media-library/video-new-psychoactive-substances-prison-supply_en

Impregnation

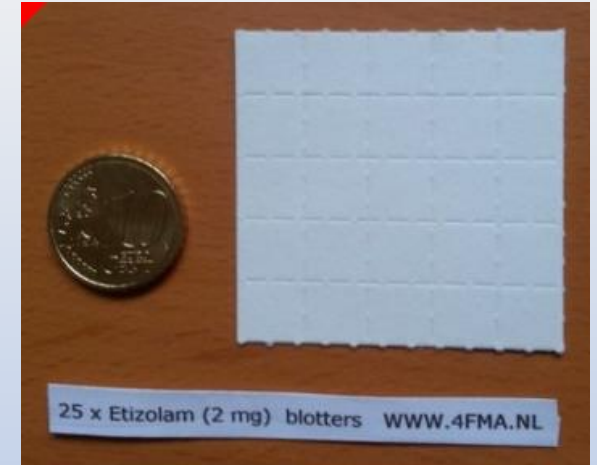


Many NPS are very potent:

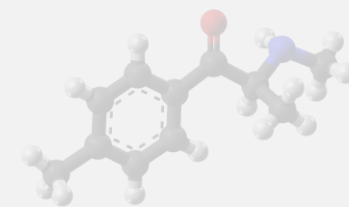
- 0,25 – 0,5 mg of AM-2201 have an effect (30–40 time more potent than THC)
- U-47700 7,5 times more potent than morphine; Carfentanyl: 10,000 times as potent as a unit of morphine (0.001 mg)
- Etizolam: 1-2 mg (equivalent to 10-20 mg of diazepam)



JVA Nürnberg

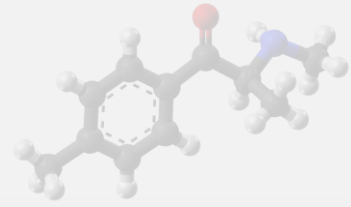


= easy to hide
= risk of overdosing > if not evenly sprayed on paper there are hotspots with higher concentration



Effects and harms of NPS

Effects: synthetic cannabinoids

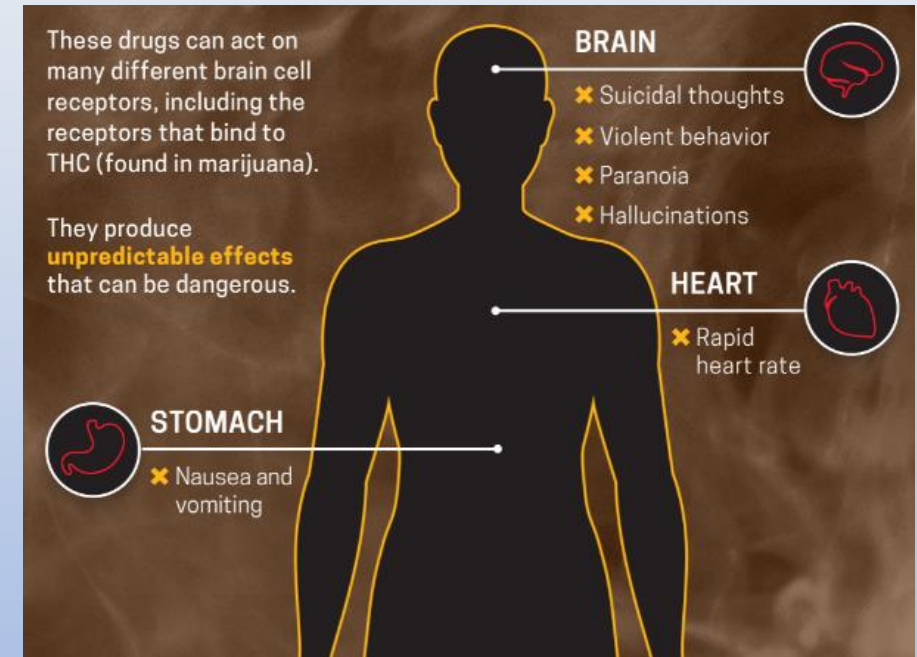


Desired effects: Relaxation, euphoria, disinhibition, feeling energised, altered consciousness

Withdrawal: Chronic use of SC is associated with ***tolerance that may develop more quickly for SC than for natural cannabis***. Withdrawal symptoms: gastrointestinal cramps, nausea, tremor, hypertension, tachycardia, coughing, headache, craving, anxiety, restlessness, irritability, depression and ***suicidal ideation***

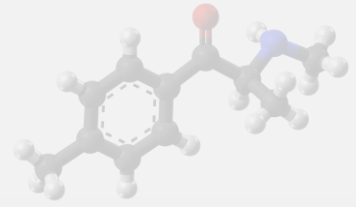
Acute adverse effects: Convulsions, hypertonia, ***cardiovascular effects*** including myocardial infarction and ischaemic strokes, ***acute shortness of breath, acute kidney injury***, hyperglycaemia, hypoglycaemia, vomiting, transient loss of vision and speech, reduced levels of consciousness, anxiety, aggression, ***extreme bizarre behaviour***, amnesia, confusion, panic attacks, inappropriate affect, hallucinations, paranoia, delusions, psychosis, ***death***

Chronic adverse effects: Psychosis, cognitive impairment, catatonic states, dependence, persistent vomiting, withdrawal symptoms on reduction or cessation of use



Nida: <https://www.drugabuse.gov>

Effects: synthetic cathinones



Desired effects: Energy, euphoria, empathy

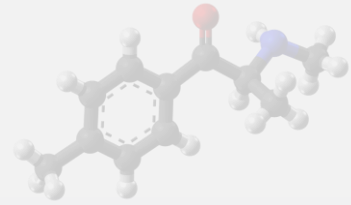
Withdrawal: Can cause withdrawal symptoms that include: depression, anxiety, tremors, problems sleeping, paranoia

Acute adverse effects: *Hyperthermia*, hyponatraemia (women especially), tachycardia, hypertension, serotonin syndrome, collapse, convulsions, hallucinations, headache, sweating, kidney injury, delayed orgasm, erectile dysfunction

Chronic adverse effects: Cognitive impairment, neurotoxicity (likely), depression, increased suicide risk



Effects: synthetic opioids

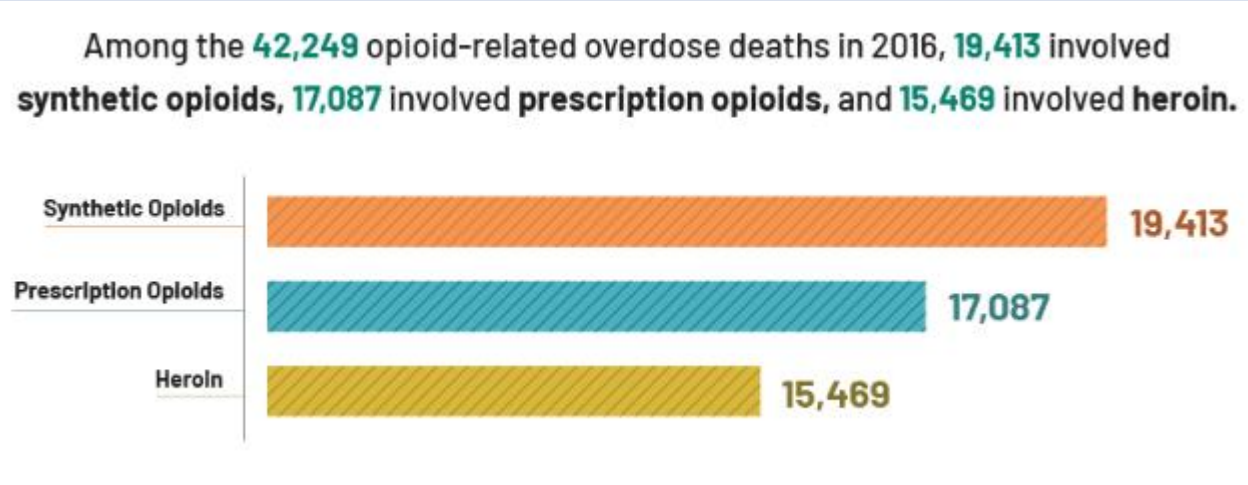


Desired effects: Users describe its effects to be similar to the classical opioids' ones including euphoria, mental relaxation, pleasant mood lift, pain release

Withdrawal: withdrawal symptoms possibly worse than morphine due to its much longer half-life, although the effects of tolerance and dependence may rapidly reach high levels, elevated risks of overdose and death are frequent

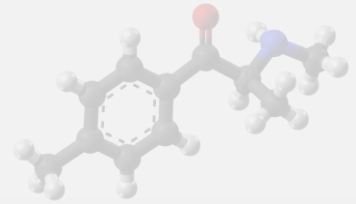
Acute adverse effects: sedation, miosis, nausea, vertigo, hypertension, tachycardia, hypothermia, respiratory depression (often cause of death)

Chronic adverse effects: the typical rewarding characteristics induce users to abuse of these opioids



Nida: <https://www.drugabuse.gov>

Effects: New benzodiazepines



Desired effects: *Relief of tension, mental stress and anxiety*, positive feelings of calmness, relief of side effects associated with over-stimulation or withdrawal of other drugs

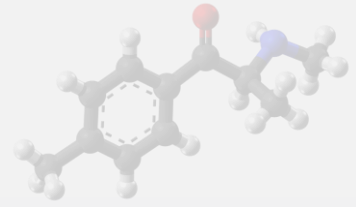
Withdrawal: Abrupt cessation may lead to withdrawal syndrome which can include *insomnia, anxiety, perceptual hypersensitivity, tremors*, irritability, nausea and vomiting, mental confusion and *life-threatening convulsions*

Acute adverse effects: *Reduced mental activity and alertness*, drowsiness, lethargy and impairment of clarity of thought and judgement may occur, potential impairment of muscle coordination, dizziness, low blood pressure, diminished emotional responses to external stimuli, e.g. pain, ***can be lethal if combined with other CNS depressants*** (e.g. opioids, alcohol) . NPS benzodiazepines may be potentially more harmful than pharmaceutical benzodiazepines with unknown pharmacological/toxicological

Chronic adverse effects: Development of tolerance & ***dependence***, headache, irritability, confusion, ***memory impairment, depression, insomnia*** and tremor

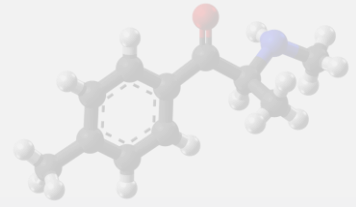


NPS problems in prison 1



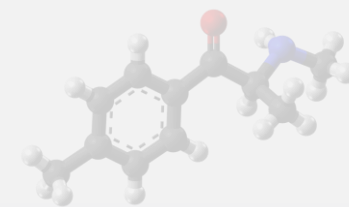
- Some of the extreme effects of synthetic cannabinoids require an immediate response and may require transfer to hospital - an increase in emergency calls
- More overdoses and increase in injecting, including needle-sharing use of new synthetic opioids (for example in Latvia)
- Mental health harms, such as aggressiveness and anxiety, may be aggravated

NPS problems in prison 2



- The adverse effects of SC use can be long lasting, and custody and healthcare staff may have to manage the consequences for months
- Some prisoners who use SC may not see themselves as having a problem with their use, so may be reluctant to engage SUD treatment
- It may be necessary to withhold prescribed medications where SC use is suspected. Particular caution is required with some antipsychotic drugs.

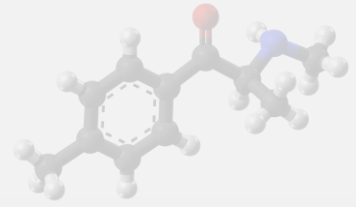




Responses to NPS in prison



Detection, repression & supply reduction



Detection:

- New drug tests to identify the use of NPS

Repression:

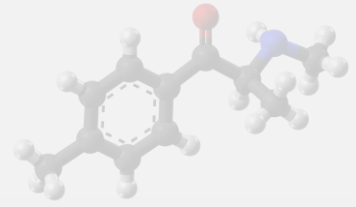
- Targeted searching (UK)
- Additional prison time (UK)
- Loss of privileges (UK) etc.

Supply reduction:

- Photocopies of letters (UK, Germany)
- Training of drug detection dogs (Scotland)
- No external provider of goods
- Training of staff



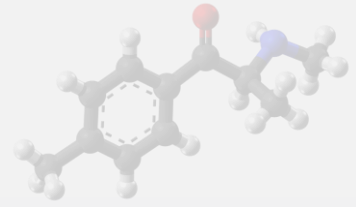
Emergency: Euro-DEN Guidelines



Call an ambulance, if ANY one of the following is present:

- Unconsciousness — if the patient does not respond to vocal commands, requires painful stimulus (e.g. pressure across the fingernails) to respond, or does not respond at all
- Significant agitation (e.g. pacing around the room) or aggression, not settling within 15 minutes
- Seizures (e.g. a convulsion similar to an epileptic fit)
- Breathing difficulties, such as fast breathing rate, not settling within 5 minutes
- Heart rate over 140 beats per minute, not settling within 5 minutes
- Temperature over 38.5°C, not settling after about 5 minutes of rest or, if no thermometer is available, if very flushed and feels very hot
- Blood pressure: Systolic ('upper pressure') over 180mmHg, or Diastolic ('lower pressure') over 110mmHg on 2 repeated blood pressure measurements
- If there are any other concerns (e.g. severe headache, chest pain)

Emergency responses

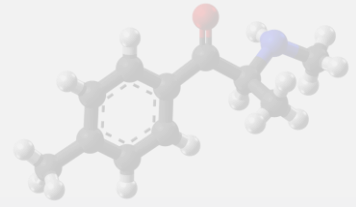


- NEPTUNE guidelines. Because it is often unclear, which substance has been used + polydrug use: „treat what you see“ = symptomatic care
- If substance is known: NPS toxicity is similar to equivalent pharmacological classes
- To be taking into account: higher potency in particular of synthetic opioids



„Treat what you see“

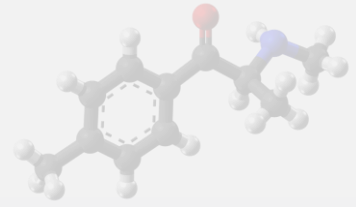
Naloxone



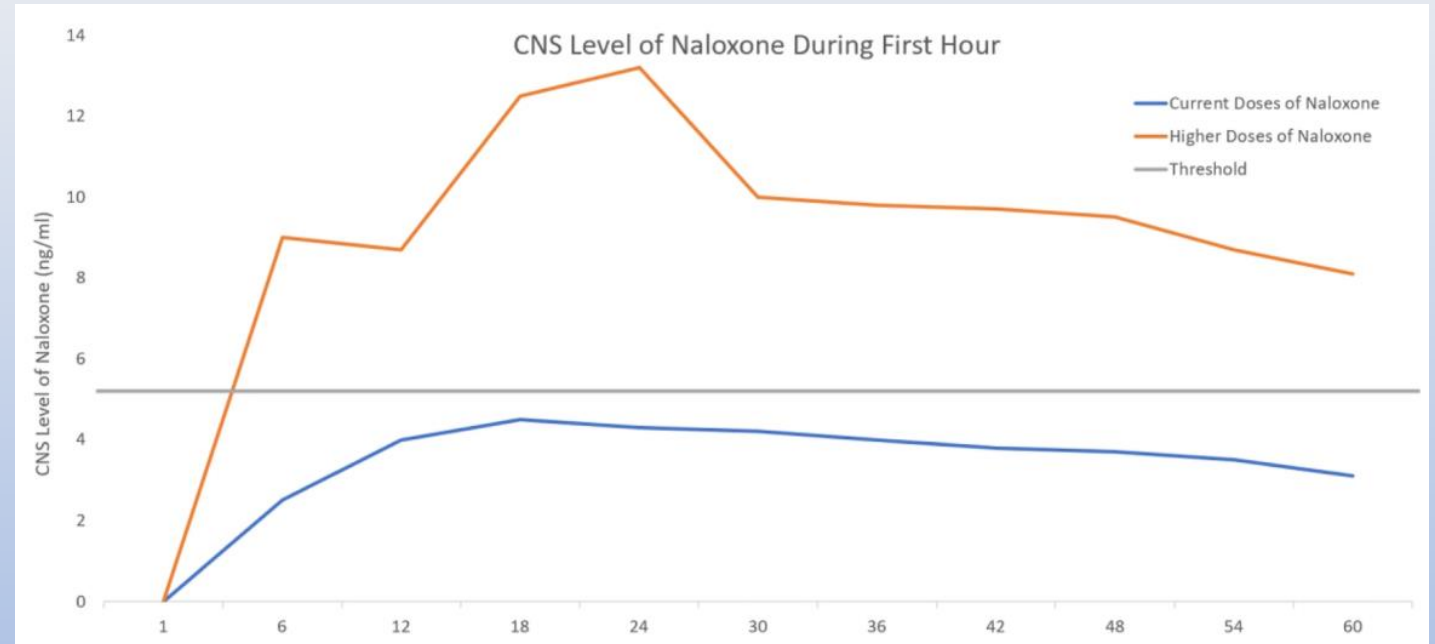
- Naloxone is a medication that reverses the effect of opioids
- 'Competitive antagonist' that displaces temporarily the opioids from the receptors in the brain to reverse the breathing difficulties
- Acute withdrawal syndrome are possible following naloxone administration



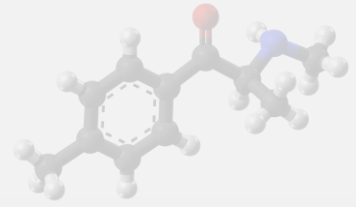
Emergency: NPS-opioids



- Due to the high potency of synthetic opioids overdoses are often more severe
- Rapid competition is required by naloxone to out-compete large numbers of opioid receptors occupied by strong opioids like fentanyl
- Multiple sequential doses of naloxone might be necessary



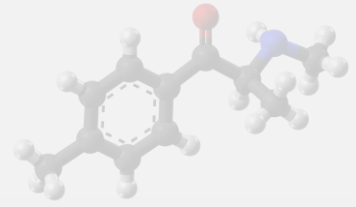
Naloxone-on release guidelines



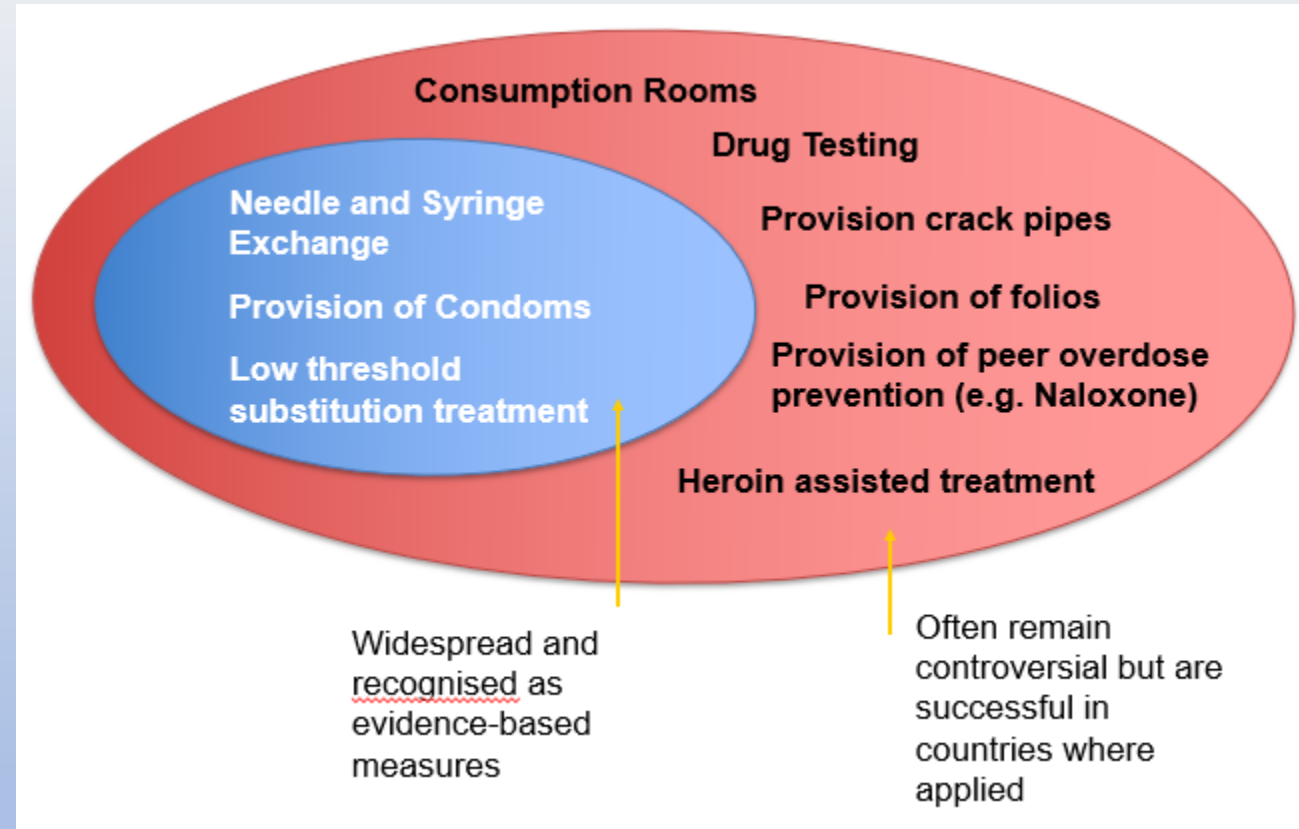
- Increase the availability of naloxone to people likely to witness an overdose after release
- Increase awareness of the signs of an overdose and equip people to respond effectively
- Inform policy makers of the benefits of naloxone-on-release from prison



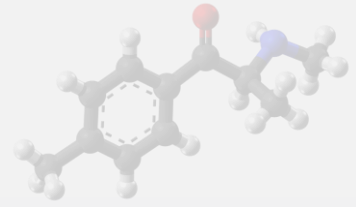
Responses: Harm reduction



- Needle and syringe programmes
- Opioid substitution therapy
- Provision of the opioid antagonist (provide guards and peers with Naloxone)
- Diagnosis, treatment, and care for HIV, HCV, and tuberculosis
- Harm reduction information for prisoners



Responses: NPS Treatment



- In Europe: low demand for specialised NPS treatment
- Result: Not many specialised treatment services focussing on NPS
- It is likely that well-established evidence-based treatment approaches are also effective for NPS user

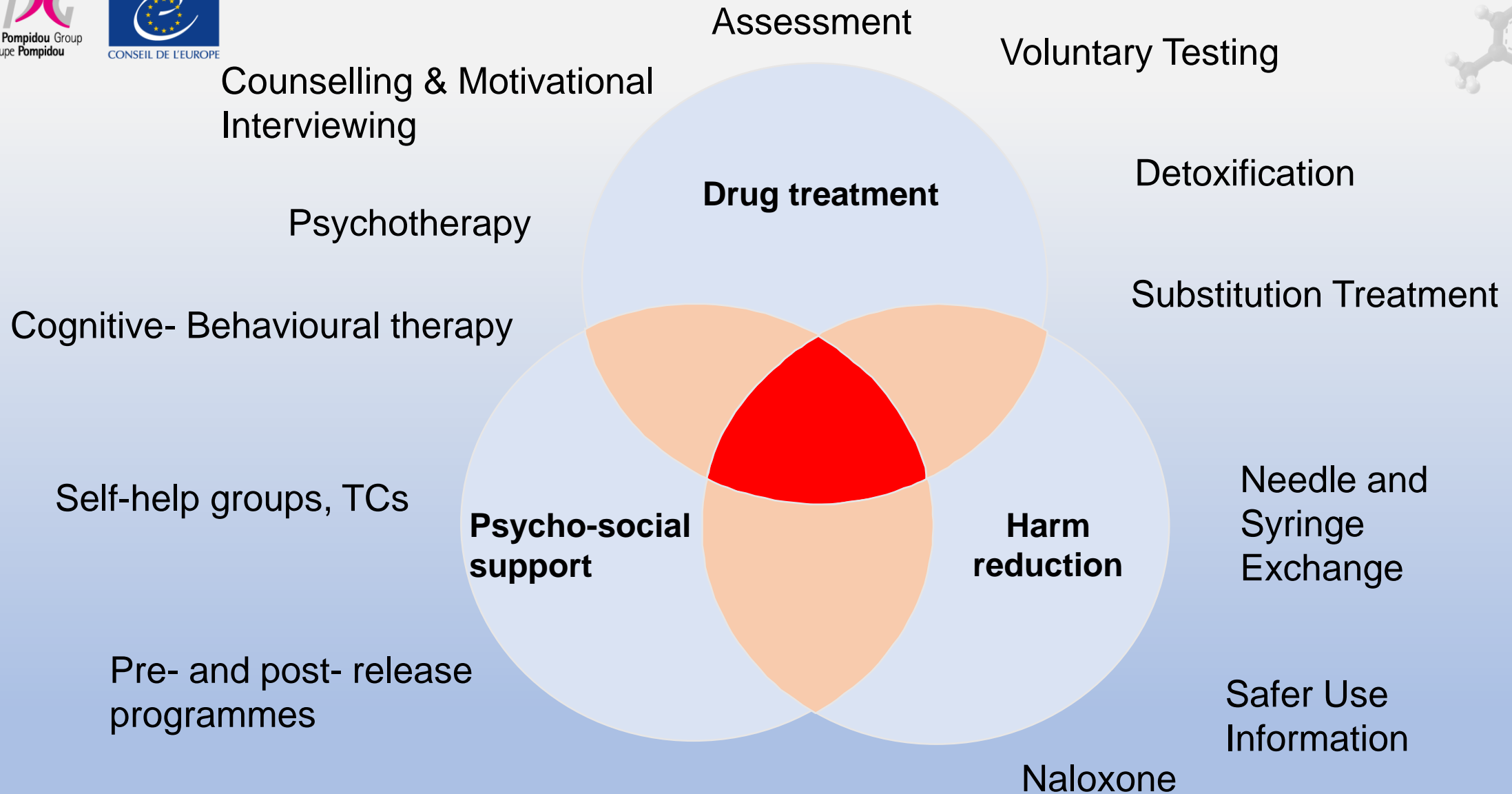
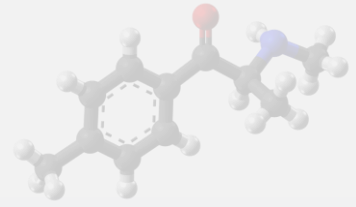
CLUB DRUG CLINIC

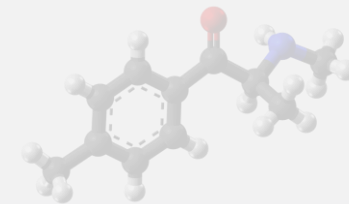
For confidential advice call 020 3315 6111
or email clubdrugclinic.cnwl@nhs.net

Home Get help ATOM

OVERDONE IT?

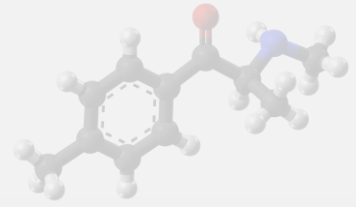
The **Club Drug Clinic** is a service for people who have begun to experience problems with their use of recreational drugs.





Conclusions & Discussion

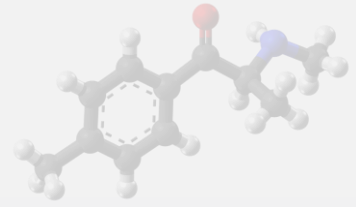
PHE Recommendations



1. Establishing accurate data on the prevalence, use and effects of NPS
2. Develop an integrated response, with custodial, health and psychosocial staff
3. No specific evidence-based pharmacological treatments exist for the adverse effects of NPS, so symptom-directed supportive care
4. Substance misuse services may need to adapt their current treatment practices in order to better address NPS



**KEEP
CALM
AND
CARRY
ON**

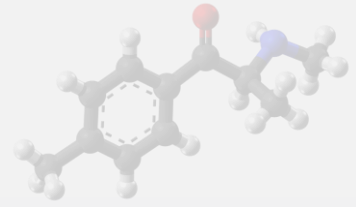


Conclusions & Discussion



1. Although prevalence of NPS use is relatively low in most countries of the world: awareness and knowledge needed to monitor new phenomenon that may develop in a more widespread public and prison health issue.
2. New drugs mimic the effects of more traditional drugs with similar effects on body, mind and health. Professionals lack of experience with NPS does not mean that they do not have the skills to support the users of these drugs. NPS users should also benefit from existing guidelines and traditional harm reduction and treatment interventions.
3. The emergence of NPS may be another argument to invest more in high quality evidence-based treatment.

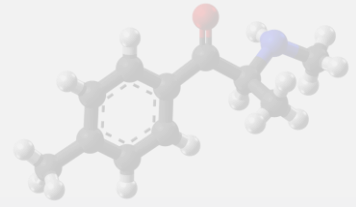
Let's work together!



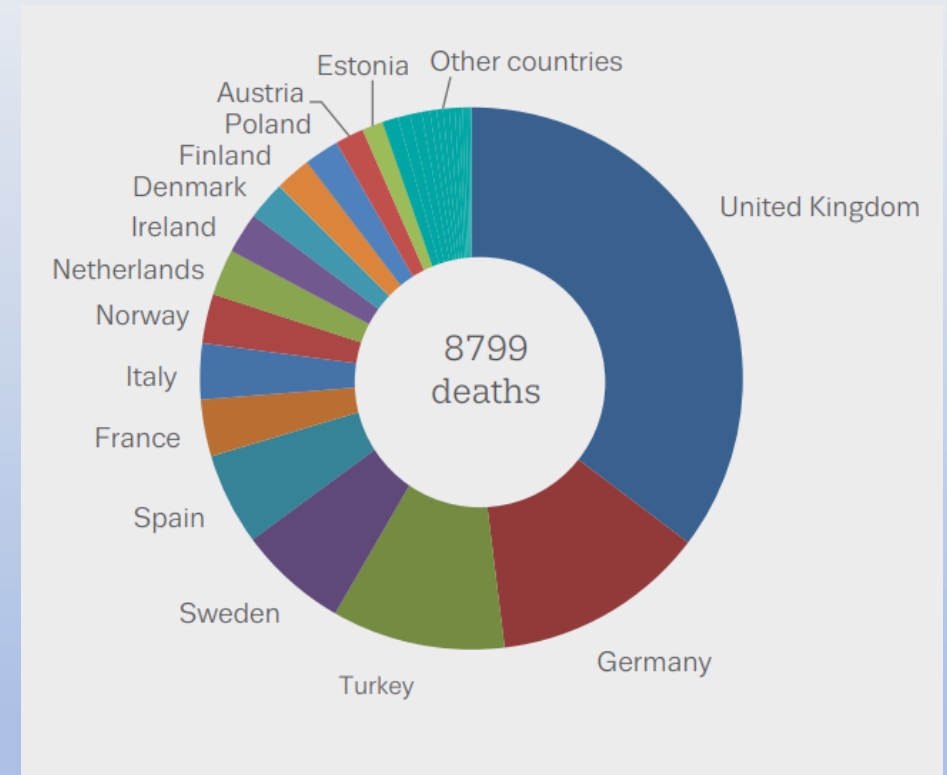
Pompidou Group of the Council of Europe:
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Robert Teltzrow:
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[linkedin.com/in/robert-teltzrow](https://www.linkedin.com/in/robert-teltzrow)

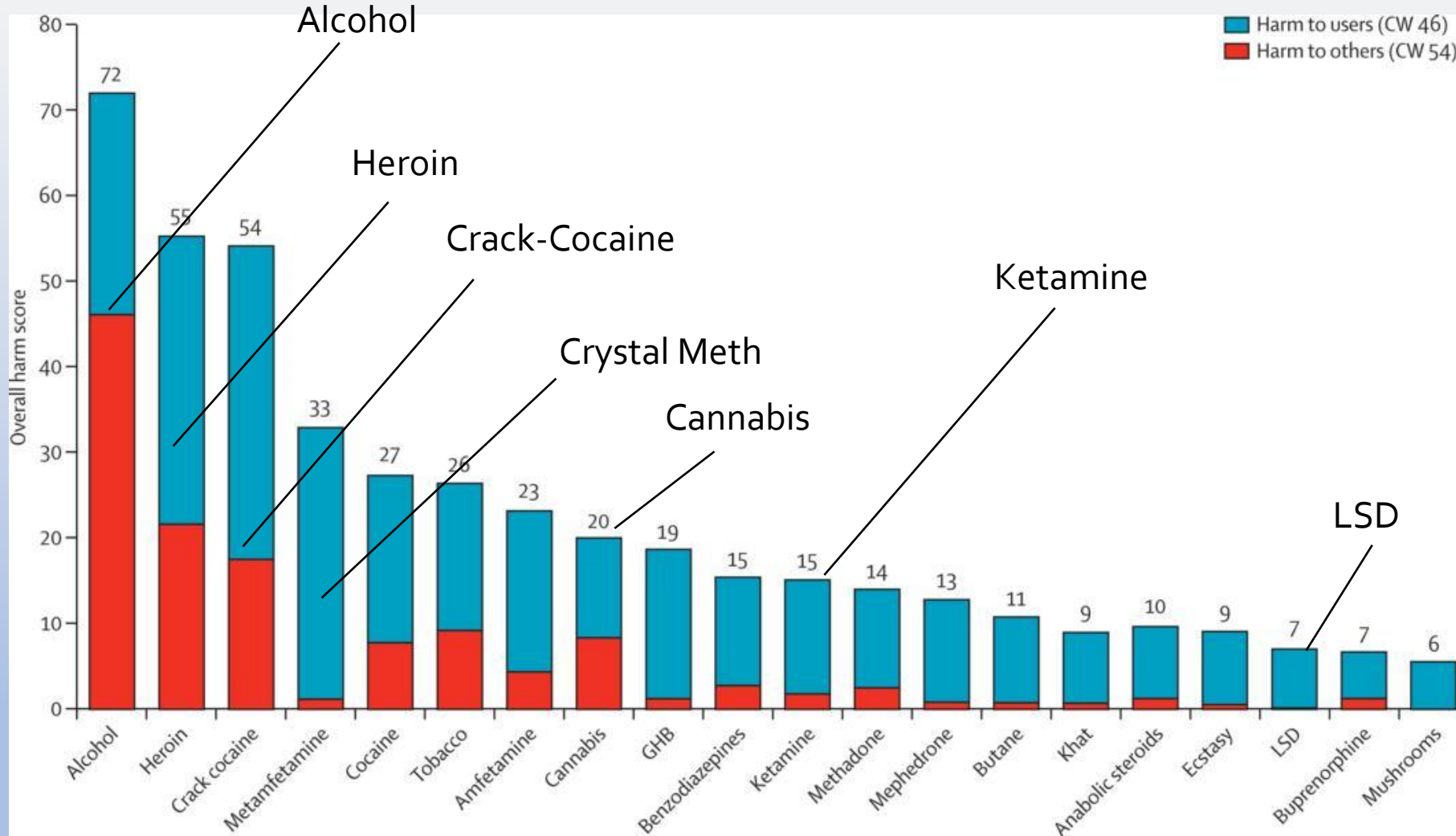
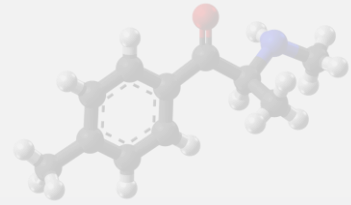
Drug-induced deaths



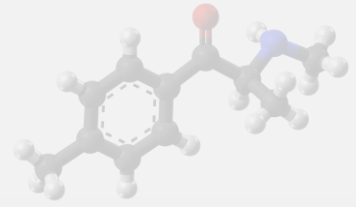
- Over 9 461 deaths (including Norway and Turkey) involving one or more illicit drugs were reported in 2017 in Europe
- Synthetic cannabinoids were involved in the majority of drug-induced deaths reported in Turkey in 2017
- New benzodiazepines are related to an increasing proportion of drug-related deaths in some countries.
- Cocaine is reported in an increasing number of deaths
- Opioids are involved in between 8 and 9 out of every 10 drug-induced deaths



Classification regarding harm



Why do we find NPS in prison

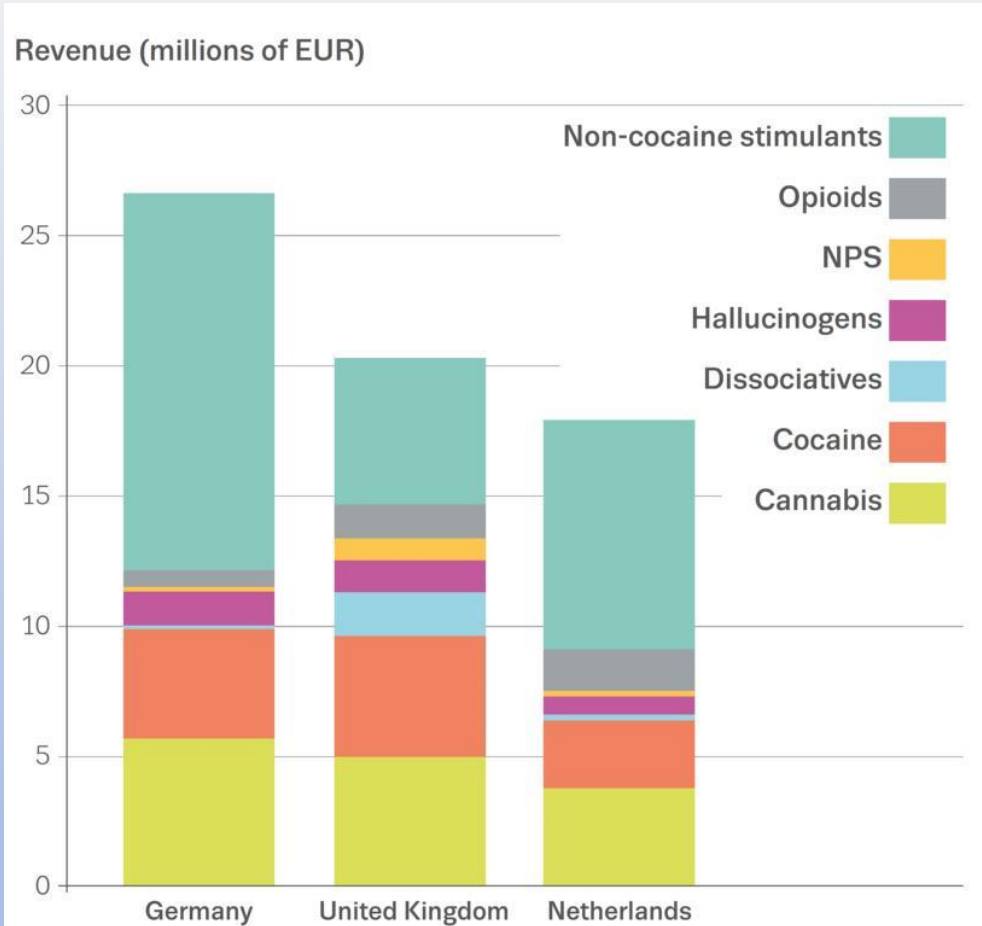
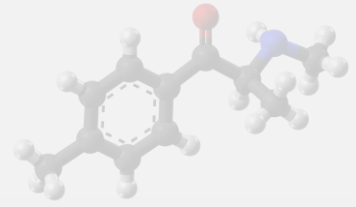


- Avoidance of positive drug tests in routine testing
- Easier methods of trafficking (e.g., dissolved in solvent and sprayed on letters)
- Higher potency (at low volumes)
- Lower cost than more established illicit drugs

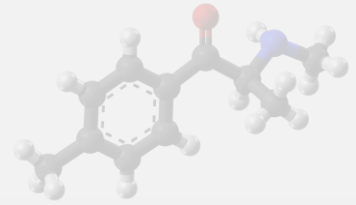


Photo: JVA Nürnberg, Germany

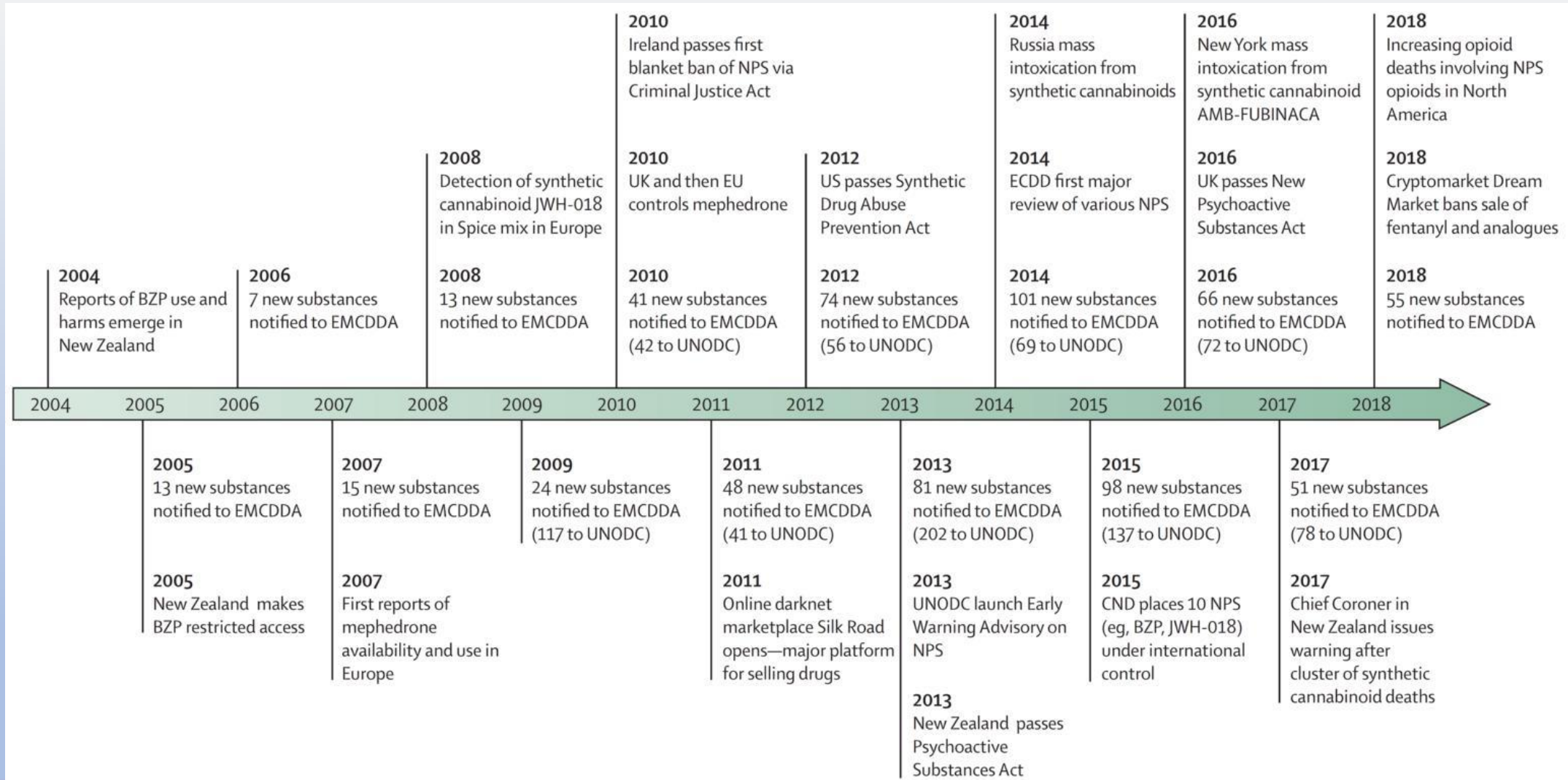
NPS in the darknet



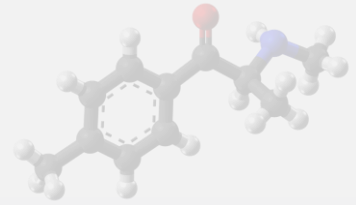
- Darknet sales are a good indicator for the proportion of different illicit drugs
- The main drugs being sold on darknet market places are cannabis and stimulants including amphetamines and cocaine
- Analysis indicates that NPS represent only a very small proportion of all trade



Timeline NPS emergence



15 key HIV intervention



1. Information, education and communication
2. Condom programmes
3. Prevention of sexual violence
4. **Drug dependence treatment, including opioid substitution therapy**
5. **Needle and syringe programmes**
6. Prevention of transmission through medical or dental services
7. Prevention of transmission through tattooing, piercing and other forms of skin penetration
8. Post-exposure prophylaxis
9. HIV testing and counselling
10. HIV treatment, care and support
11. Prevention, diagnosis and treatment of tuberculosis
12. Prevention of mother-to-child transmission of HIV
13. Prevention and treatment of sexually transmitted infections
14. Vaccination, diagnosis and treatment of viral hepatitis
15. Protecting staff from occupational hazards

New Benzodiazepines

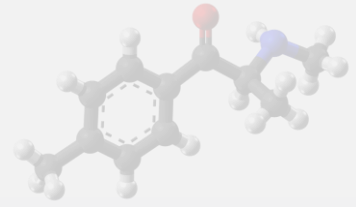
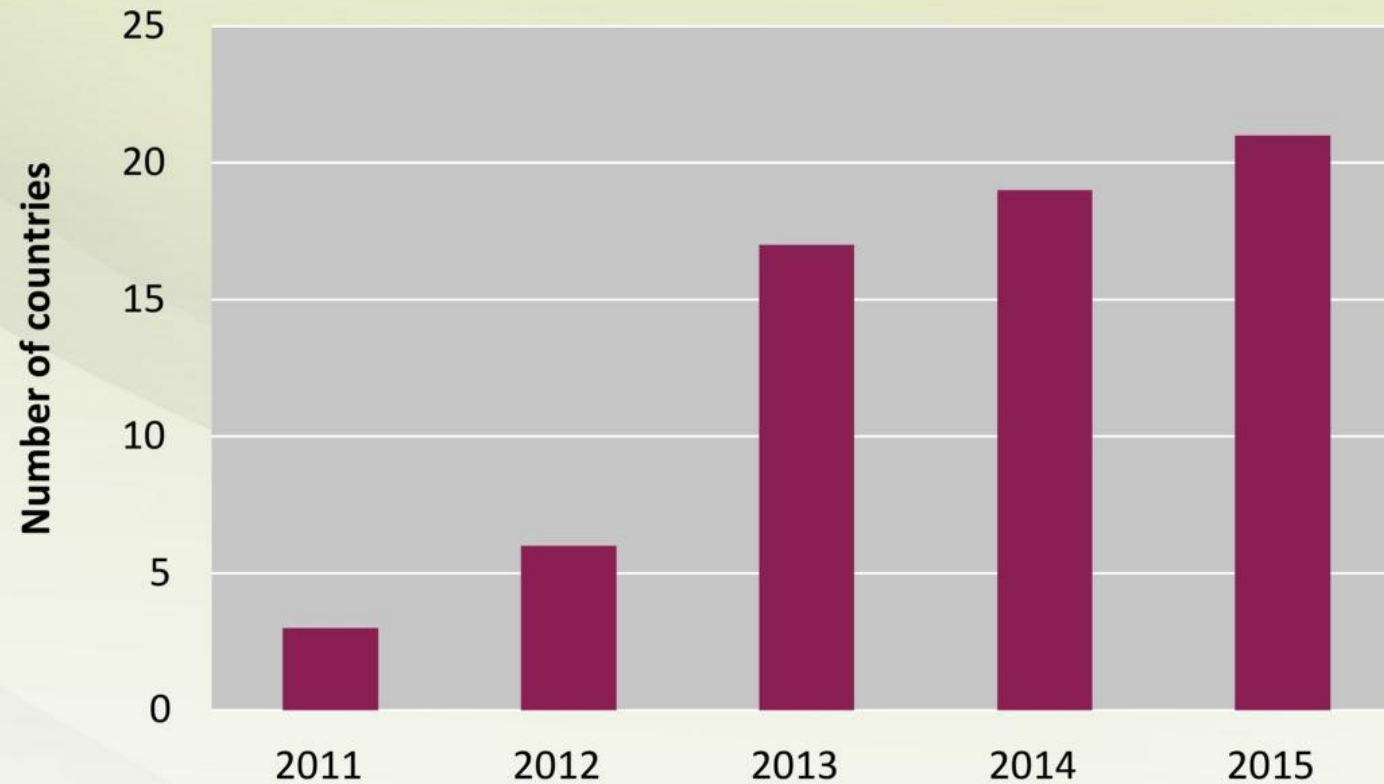
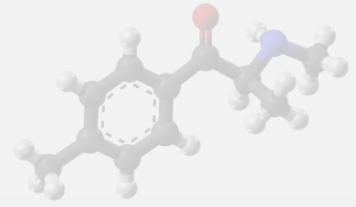


Figure 1: Number of countries reporting NPS belonging to the benzodiazepine class to UNODC EWA, 2011-2015

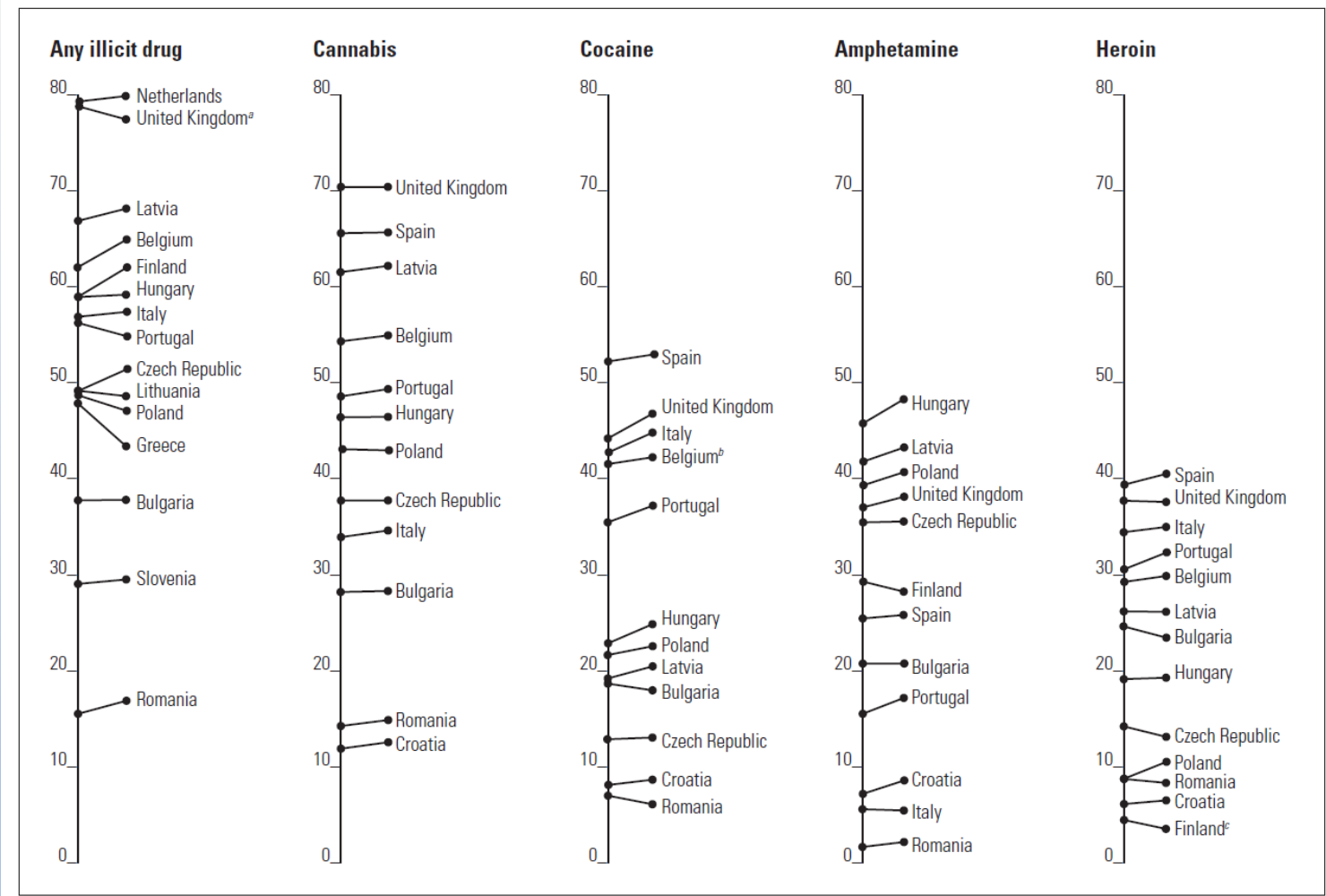


Source: UNODC Early Warning Advisory (EWA) on NPS, 2017.

Estimates: Drug use in prisons

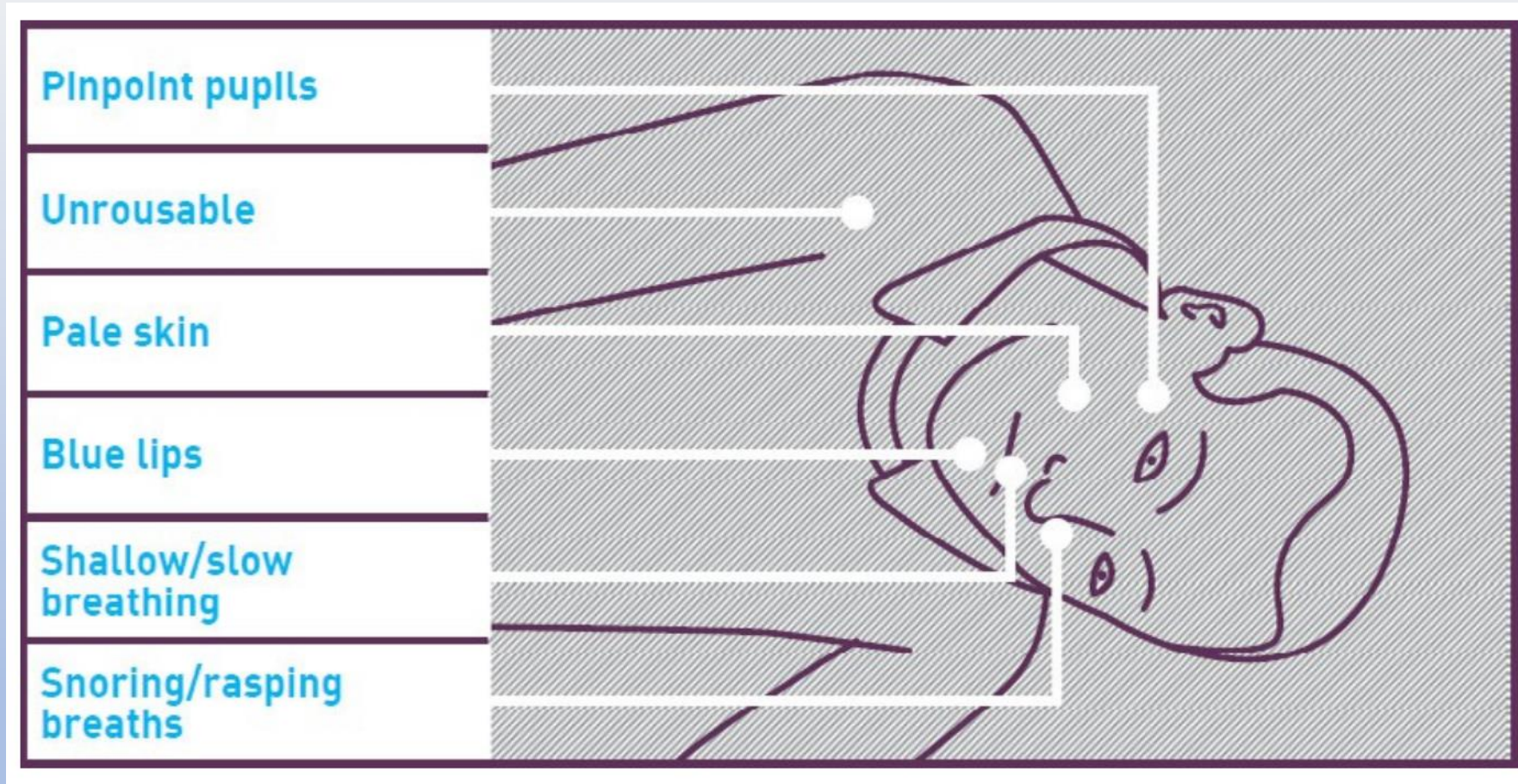
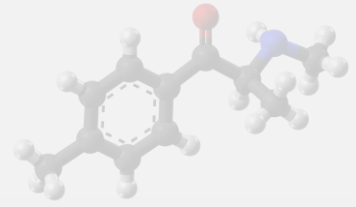


- In Europe 10-25% are defined as drug dependent on admission (USA: 25-50%)
- 10–42% report regular drug use in prison
- 3–26% first used drugs while incarcerated
- 1–22% have injected drugs while in prison
- Up to 21% of injectors initiated injecting in prison

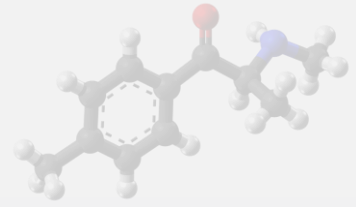


WHO 2014

Signs for opioid overdose



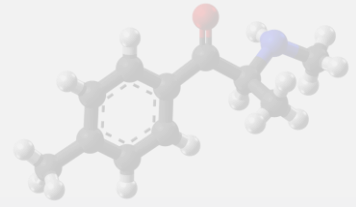
Prison-based needle and syringe programmes



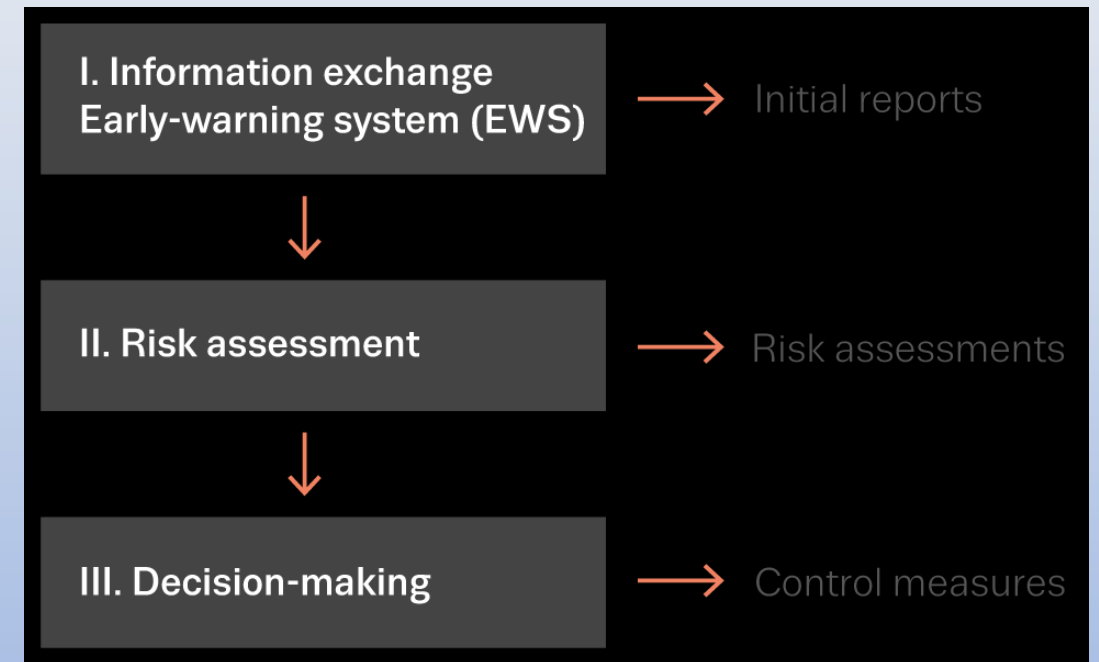
- Studies show: effective in reducing infections
- No case reported where needles were used as weapons
- Programmes in only 11 countries worldwide and low coverage
- Also helps to prevent infections when NPS are injected



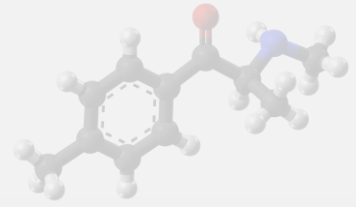
New EU legislation (21.11.2018)



- **EU Early Warning System (EU EWS)** collects and assesses information about new psychoactive substances reported by the member states.
- **EMCDDA** assess risks. **Europol** and EMCDDA provide joint report.
- **Commission** may propose to control the substance. The **Council of the EU** and the **European Parliament** will then have two months to decide whether they agree.
- **Member States'** authorities will have six months (instead of 12 under the previous system) to place the substance under control



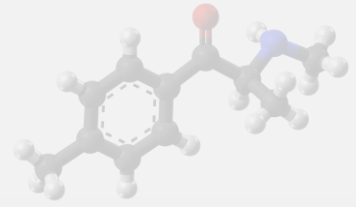
Opiate Substitution Treatment



- Most European countries introduced OST in prisons
- Showed effectiveness with all opiates so far. Should also work with NPS-Opioids
- OST should also help patients who use opioids in combination with NPS
- Coverage is still low in some countries like Poland, Hungary, Finland, Denmark, Serbia, Germany
- Not available: Slovakia, BiH, Turkey, Ukraine



Drug harms in prison



- Drug-related deaths (in prison and after release)
- Drug-induced cases of emergency
- Dealer hierarchies & debts
- Risks of infection (HIV, hepatitis) / Sharing of equipment
- Mixed and poor quality drugs/incalculable drug purity

