



European Monitoring Centre
for Drugs and Drug Addiction

RAPID COMMUNICATION

New psychoactive substances in prison

Results from an EMCDDA trendspotter study
June 2018





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Contents

4	Study rationale and methods
5	Extent and nature of NPS use in prisons in Europe
8	Supply of NPS to prisons
9	NPS-related harms
10	Responses to NPS in prison
11	Key issues
13	Conclusion
13	Acknowledgements
14	References

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Study rationale and methods

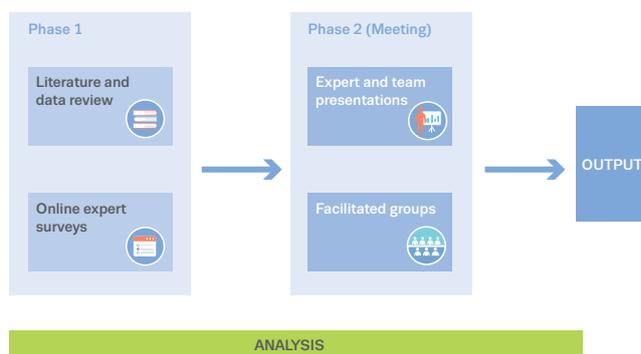
This publication provides an overview of the latest information available on the use of new psychoactive substances (NPS) and related problems in European prisons based on a rapid information assessment carried out by the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA). The study complements data from a range of established sources. The EMCDDA has been routinely collecting data on illicit drug use among prisoners for over 15 years through a combination of qualitative and quantitative monitoring tools, although the primary focus has been on controlled substances. The EMCDDA also collects information on NPS and, in 2017, was monitoring a total of over 670 NPS that have been notified to the EU Early Warning System (EWS). The use of NPS by high-risk drug users has recently been explored by the EMCDDA (2017a). The study found that while consumption levels of these drugs were low overall in Europe, the smoking of synthetic cannabinoids among some marginalised populations, including prisoners, appeared to be an emerging but poorly understood problem in many European countries.

This study was prompted therefore by the conclusion that NPS use among prisoners appears to be a rapidly developing phenomenon and there is growing concern in some countries that NPS may be responsible for a large share of drug-related problems in prison, while appropriate responses are mostly lacking. However, empirical data are currently scarce and patchy, as monitoring drug use among prisoners in general, and NPS use in particular, at the European level is challenging due to the different study designs applied and limited systematic data collection.

To investigate the extent, nature and impact of these developments the EMCDDA carried out a targeted rapid information assessment between August and December 2017. The aim of the study was to map and increase understanding of NPS use in prisons in Europe, including prevalence and patterns of use, the underlying contributing factors, associated harms and market and supply features of NPS use in prisons, as well as the responses implemented to address NPS-related problems in prison settings.

The study used the EMCDDA trendspotter methodology, which draws on a range of different investigative approaches and utilises data from multiple sources (Mounteney et al., 2015). The work was divided into two phases (see Figure 1). The first phase, carried out by an EMCDDA team, involved data collection through an exploratory 'rapid information request' among national

FIGURE 1
Trendspotter data gathering methods



focal points in 30 countries (28 replied), a non-systematic review of the international literature, grey literature and available EMCDDA monitoring data ('Literature and data review'). This was complemented by internet surveys of three groups: an informal network of prison experts (8 respondents), experts invited to the trendspotter meeting (12 respondents) and a selection of national focal points (7 respondents) ('online expert surveys').

The second phase centred on an expert meeting, held in Lisbon on 13 to 14 December 2017. The event was attended by 11 invited experts from 9 countries, who presented information on the situation in their country, participated in two facilitated working groups and contributed to an in-depth analysis of the topic, providing insights from a range of perspectives including drug research and monitoring, user/prisoner representation, law enforcement, prison officers, prison administration and (prison) health services.

Analysis was based on triangulation of all the information sources, with a view to providing as complete and verified a picture as possible. The combination of routine and survey data with key informant reports and law enforcement intelligence provided a rich and in-depth view of a rapidly developing phenomenon. This report summarises the study findings and conclusions. Where results are based on the literature, references are cited; otherwise findings are based on EMCDDA and national monitoring and the qualitative sources described above. The reader should note that a trendspotter study provides a rapid and practical method for auditing, analysing and reporting on a potentially important developmental area. It is therefore intended to act as a catalyst for further actions, which may include additional, more formal research or monitoring activities, or prompt more timely discussions on what implications may exist for policy or practice.

Definitions used in this study

New psychoactive substances — this term is used for the purposes of this exercise for both non-controlled and recently controlled new psychoactive substances, in particular (but not exclusively) synthetic cannabinoids, synthetic cathinones, new synthetic opioids and new benzodiazepines. The reader should note that this is a broader definition of NPS than usually adopted.

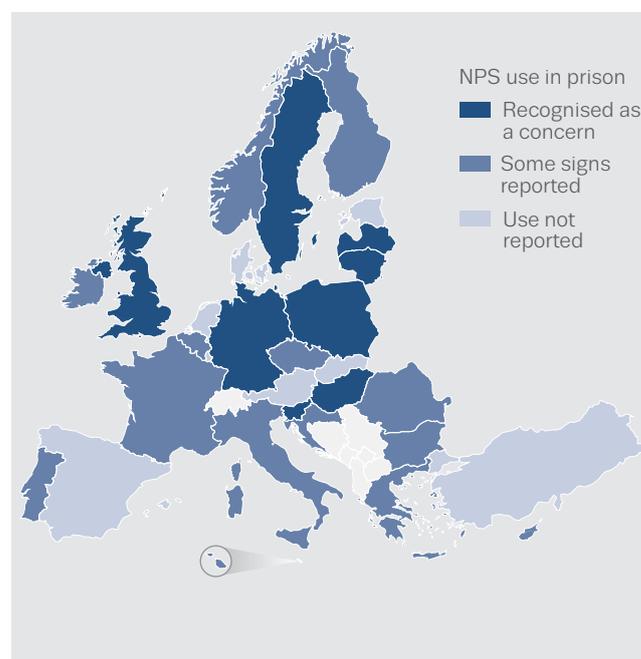
Prison — in this study the term 'prison' is used in a broad sense to include any place in which prisoners are held in custody. It therefore includes prisoners with a range of legal statuses, such as, but not limited to, detainees who have not yet been tried, juvenile prisoners and prisoners who are serving custodial sentences.

Extent and nature of NPS use in prisons in Europe

NPS use in prison: becoming a Europe-wide phenomenon

This study identified reports of NPS use among prisoners in 22 European countries. In addition to the United Kingdom, where the phenomenon is already well-documented (HMIP, 2015a; Ralphs et al., 2017), our findings suggest that NPS use in prison settings is an issue of concern in Germany, Hungary, Latvia, Lithuania, Poland, Slovenia and Sweden (8 countries). Furthermore, anecdotal reports document NPS use in prisons in Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Finland, France, Greece, Ireland, Italy, Malta, Portugal, Romania and Norway (14 countries). For other European countries, it remains unclear whether there is no NPS use in prison or simply that there is no information on the topic available (Figure 2). It should be noted, however, this group includes some countries for which other data sources suggest relatively high availability, or evidence of problems associated with NPS use. When compared to the findings of the previous trendspotter study on 'High-risk drug use and new psychoactive substances' (EMCDDA, 2017a), the current study, carried out 1 year later, shows an increase in the number of countries reporting the use of NPS in prison settings. It remains unclear whether this trend reflects actual changes in use, increased availability of NPS in prisons or improved monitoring and data collection efforts.

FIGURE 2
NPS use among prisoners in the European Union, Norway and Turkey



NB: Based on reports from national experts.

Although country comparisons have to be treated with caution, it is possible to make some preliminary observations as to the geographical variation of perceived NPS use in prison. The results presented here suggest, at least, that NPS use in prison is more a recognised issue of concern in a number of countries, mainly located in the north and east of Europe.

Types of NPS used in prison

The term 'new psychoactive substances' encompasses a wide variety of different types of drugs, with very different effects. The four main types reported in prison settings are synthetic cannabinoids, synthetic cathinones, new benzodiazepines and new synthetic opioids (see 'New psychoactive substances reported in European prisons', page 7). Data on the different groups of NPS used in prison are available for 16 countries (see Table 1).

The present study finds that synthetic cannabinoids are the most common group of NPS used in prison. Not all countries provided information on the type of substances used, but of the 16 countries that provided information on the type of NPS known to be used in prison all reported the use of synthetic cannabinoids (see Table 1). There is very

TABLE 1
Groups of NPS identified by experts as being used in prison

	Synthetic cannabinoids	Synthetic cathinones	New synthetic opioids	New benzodiazepines
Finland	•	•	•	•
Latvia	•	•	•	•
Poland	•	•	•	•
Sweden	•	•	•	–
Czech Republic	•	•	•	–
Italy	•	–	•	•
Cyprus	•	•	–	–
Germany	•	•	–	–
France	•	•	–	–
Hungary	•	•	–	–
Lithuania	•	•	–	–
Croatia	•	–	–	–
Ireland	•	–	–	–
Norway	•	–	–	–
Slovenia	•	–	–	–
United Kingdom	•	–	–	–
Total	16	10	6	4

limited information available on the different synthetic cannabinoids used in prison, but they are likely to reflect the diversity seen overall on the drug market. This is supported by forensic testing in Germany, where urine samples taken from prisoners often contain more than one synthetic cannabinoid.

Synthetic cathinones are the next most common type of NPS in prison, with 10 countries reporting their use in these settings; fewer reported new synthetic opioids (6 countries) and new benzodiazepines (4 countries) being used in prison (see Table 1).

In recent years, the variety of NPS used in European prisons appears to have increased. However, it remains unclear to what extent this is related to improved monitoring efforts. NPS use in prison should be seen

within a wider polydrug use context, which may also include use of alcohol, established drugs and misuse of prescription medicines in prison, with availability in this setting as one of the important drivers for use. The rationale for choosing specific substances in prison is likely often to be explained by pragmatic considerations, such as availability and price, rather than the personal preferences of the user. In Poland, for instance, a shift away from the use of established drugs in prison to the use of NPS has been reported. A different pattern, however, has been observed in Croatia and the Czech Republic, with little demand for, and limited use of, NPS in prison, but increasing evidence of misuse of prescription medicines. The underlying factors and drivers of these differing patterns remain poorly understood and merit further formal research investigation.

New psychoactive substances reported in European prisons

Synthetic cannabinoids — Synthetic cannabinoids (or synthetic cannabinoid receptor agonists) is the general name given to a diverse range of substances that act on the same brain receptors as tetrahydrocannabinol (THC), which is largely responsible for the major psychoactive effects of cannabis (Fantegrossi et al., 2014; EMCDDA, 2017b). Synthetic cannabinoids are frequently sold as 'legal' replacements for cannabis, although their effects are often very different. Typically, synthetic cannabinoids are sold as 'herbal smoking mixtures'. Synthetic cannabinoids may also be sold as powders and tablets, products that look like cannabis resin and e-liquids for use in electronic cigarettes (EMCDDA, 2017c). Synthetic cannabinoids have sometimes been grouped under the street name 'Spice' or 'K2'. Synthetic cannabinoids continue to be the largest group of new substances monitored by the EMCDDA and are becoming increasingly diverse, with 179 detected since 2008 — including 10 reported in 2017 (EMCDDA, 2018). A wide range of physical and mental health harms have been associated with the use of synthetic cannabinoids in the general population (EMCDDA, 2017d). Synthetic cannabinoids are chemically very diverse, and because of difficulties in analytical identification, they may be undetected or under-reported.

Synthetic cathinones — Synthetic cathinones are chemically related to cathinone, a naturally occurring stimulant under international control, found in the khat plant (*Catha edulis*). These substances have effects similar to common illicit stimulant drugs such as amphetamine, cocaine and MDMA (EMCDDA, 2015). Synthetic cathinones are the second largest group of new substances monitored by the EMCDDA, with 130 detected in total — including 14 detected for the first time in 2016 and 12 reported in 2017 (EMCDDA, 2018).

New synthetic opioids — Synthetic opioids are a broad family of substances that act on the opioid receptors and which include prescription pain relievers and anaesthetics. They produce effects such as respiratory depression, sedation, euphoria, hypothermia, drowsiness and miosis (excessive constriction of the pupil of the eye). A total of 38 new synthetic opioids have been detected on Europe's drug market since 2009, including 13 reported for the first time in 2017. This includes 28 fentanyl derivatives, 8 of which were reported for the first time in 2016 and 10 in 2017. The new fentanyl derivatives are highly potent substances, which pose a serious threat to individual and public health (EMCDDA, 2018).

New benzodiazepines — New benzodiazepines are chemically related to prescription benzodiazepines. Some 23 new benzodiazepines are being monitored by the EMCDDA — 3 of which were detected for the first time in Europe in 2017. Some new benzodiazepines are sold as tablets, capsules or powders under their own names. In other cases, counterfeiters use these substances to produce fake versions of commonly prescribed anti-anxiety medicines, such as diazepam and alprazolam, which are sold directly on the illicit drug market. During 2016, more than 0.5 million tablets containing new benzodiazepines, such as diclazepam, etizolam, flubromazolam, flunitrazolam and fonazepam, were seized — an increase of about two-thirds on the number reported in 2015 (EMCDDA, 2018).

For further information on these substances:
<http://www.emcdda.europa.eu/drug-profiles>

A wide variation in prevalence estimates

It is not possible to compare NPS prevalence estimates across countries, as different definitions, data sources and methodologies are used. However, the limited data available on reported prevalence rates of NPS use in prison suggest a wide range, from less than 2 % of prisoners in Portugal ever using any NPS while incarcerated (Torres et al., 2015) to over 30 % reporting last month use of synthetic cannabinoids in some prisons in the United Kingdom (User Voice, 2016). There are some indications that across Europe, NPS use may be higher in

men's prisons than in women's prisons, higher in remand prisons and lower in high-security prisons.

A project in 10 prisons in the United Kingdom, which tested the urine of prisoners, found the prevalence of synthetic cannabinoid use among prisoners preparing for release to be twice (16 % testing positive) the level measured among prisoners at the time of admission (8 % positive) (National Offender Management Service, 2015). It was the only substance for which the percentage of positive drug tests was higher pre-release than upon arrival in prison.

The limited information available suggests increasing levels of NPS use across European prisons, but this conclusion should be interpreted with caution as it is primarily based on expert opinion and qualitative information sources.

Different user groups

Use of NPS in prison settings in Europe was particularly associated with two main groups within the prison population. First, some countries reported a group of marginalised and socially vulnerable people with long drug careers, often homeless and in regular contact with the criminal justice system, who use NPS while in prison. There are indications that psychiatric comorbidities may be common in this group. Second, in some countries NPS use appears to be more common among young people who are relatively inexperienced users of drugs and may be initiating NPS use in prison. In Hungary, for instance, 77 % of people in prison that had ever used NPS in their lives were under the age of 35. Some of those using NPS for the first time in prison may have been using cannabis outside prison, and switched to synthetic cannabinoids inside prison for a variety of reasons (see below). Young prisoners using NPS may be particularly vulnerable to bullying. A study conducted by Her Majesty's Inspectorate of Prisons (HMIP) reports about cases in the United Kingdom in which prisoners, referred to as 'spice pigs', are used to test new synthetic cannabinoids, to find out what quantities are safe and what effects can be marketed (HMIP, 2015b).

Interestingly, anecdotal reports also exist that some prisoners with histories of drug use deliberately avoid using NPS when they have access to them. Examples mentioned include people who have experienced or witnessed adverse effects and those who refrain from NPS use because of the poor reputation that exists about these drugs outside of the prison setting in some countries.

Complex set of drivers

Specific motivations for using NPS in prison include coping and self-medication purposes, the particular effects of the drug themselves, the perceived legal status of NPS, the fact that NPS are rarely included and hard to detect in routine drug tests, high profits for dealers, and reduced availability of illicit drugs.

It has been suggested that people in prison may use NPS for the same reason they use other substances in prison, principally to escape reality, boredom and the routine of prison life. Use of synthetic cannabinoids in prison has

been identified in the literature as 'a bird killer' ⁽¹⁾, in that it deadens time in prison (Blackman and Bradley, 2017; User Voice, 2016). Closely related to this is the use of synthetic cannabinoids and other NPS for self-medication purposes or as compensation for perceived under-medication, to cope with feelings of depression or to feel less anxious or stressed. In this context the often powerful or strong psychoactive effects reported by users of synthetic cannabinoids appears to be important. Dependence has been identified as another motivation for use, with some prisoners describing how their patterns of use were habitual (Ralphs et al., 2017). It has also been reported that synthetic cannabinoids may sometimes be used by those withdrawing from a dependency from other substances such as heroin when entering prison.

In contrast to illicit drugs, one of the main drivers reported for the consumption of synthetic cannabinoids in prison is the perceived legal status and avoidance of positive drug tests (Reuter and Pardo, 2016). Researchers have found switching to substances that are more difficult to detect — or not detectable — by routine drug tests to be common practice in prison environments (Ralphs et al., 2017). It has been argued this is an important driver for consumption of synthetic cannabinoids among the prison population, as well as the fact that these substances are odourless, as opposed to cannabis, and therefore use is more likely to go undetected by prison staff. Similarly, the challenges in detecting synthetic cannabinoids and other NPS when brought into prison may be an important driver behind their availability in prison. Sniffer dogs are not trained to recognise the many different types of NPS, while the impregnation of the drugs into paper and textiles (see below) also represents a considerable challenge to its detection by prison staff.

Supply of NPS to prisons

The study found that some methods for bringing NPS into prisons are similar to those used for established drugs, while other methods appear to have been specifically developed for the supply of NPS.

A supply route reported by several different countries is the 'throw-over' method, whereby drugs are thrown over the prison wall, sometimes as a simple package, but also hidden in other substances. Examples of these include oranges, carcasses of birds or as a package with fishhooks attached, allowing prisoners to more easily retrieve ('fish') the package from the courtyard.

⁽¹⁾ Bird is a term used to describe a prison sentence.

Recent years have seen reports of NPS-packages being delivered by 'drones' in prisons in Germany, Poland and the United Kingdom. The use of drones is not reported to be exclusively related to the supply of NPS, but also as an innovative method for supplying all kinds of commodities into prison (such as illicit drugs and mobile phones).

The use of people visiting prisons for a variety of legitimate reasons to bring in NPS was reported by most countries as a common supply mechanism. The most frequent one being the smuggling by visitors who conceal the substance in their body and transfer it during contact with the detained. The use of external subcontractors has also been identified as an enabler for the supply of NPS in prison: cleaning companies, waste disposal trucks and canteen distributors have been reported by countries as potential sources of supply. Distribution through the prison canteen was reported as a common supply route: pre-sealed food packages, such as coffee, instant noodles or crackers, may be used to conceal NPS.

Synthetic cannabinoids and synthetic opioids can easily be dissolved in a solvent, such as acetone, and can be sprayed onto paper and tobacco or impregnated into textiles (Ford and Berg, 2018). The sending of postal packages or letters with NPS sprayed on the paper has been identified as a method for bringing NPS into prisons in a number of countries (Finland, Germany, Hungary, Lithuania, Poland, Sweden, United Kingdom). One of the health risks associated with NPS in this form is the possible occurrence of so-called 'hot-spots' — areas on the paper that contain a high concentration of the active compound and which may be linked to an elevated risk of overdose. Anecdotal information from the United Kingdom also points at a possible increase in the use of liquid NPS in vaping pens, which may be a possible adaptation to the recently implemented smoking ban in UK prisons.

The profit motive is an important driver for bringing NPS into prison. A product containing synthetic cannabinoids is not complicated to manufacture, and it can be sold at a substantial profit outside prison (Surmont et al., 2017). This makes it an attractive substance to produce and supply to prisons, where prohibited commodities fetch higher prices than they do in non-prison environments. Some countries reported cases where individual prisoners may have deliberately breached their (parole) license by bringing NPS into prison in order to take advantage of the high profits possible. There is a risk that the potential high profits may also attract organised crime groups to engage in the supply of NPS in prison.

In conclusion, it appears likely that the combination of high profits that can be made from selling NPS in prison settings together with the difficulties faced by authorities in preventing the trafficking of these drugs into prisons has resulted in increased availability and thus easy access to them in some prisons. Where NPS are available, prices may often be lower than for (often less-available) established drugs, and their affordability may be another potential motivation for use in the prison environment.

| NPS-related harms

| Physical harms and mental health problems

Experts participating in the study reported a wide range of physical and mental health harms associated with acute intoxication by and chronic consumption of synthetic cannabinoids in prison.

Mental health problems reported include psychosis, disorientation, suicidal ideation, aggressiveness (including self-harm and harms to others), anxiety and depression.

Physical harms reported include nausea, convulsions, temporary paralysis, rapid heart rate, cardiovascular problems and renal injuries.

Because of the high potency of synthetic cannabinoids, even low doses of the substances may lead to intoxication. Intoxication may also be related to the lack of experience with the substance (composition, quantity needed to obtain the desired effect and frequency of use) (EMCDDA, 2017d). Cases of intoxication requiring hospitalisation have been reported in prisons in Germany and the United Kingdom and are likely to have occurred in other countries.

Moreover, the chronic use of synthetic cannabinoids has been linked with reported dependence and withdrawal symptoms (User Voice, 2016). Non-fatal overdoses related to NPS, primarily synthetic cannabinoids, have been reported by 7 countries (Germany, Finland, Italy, Latvia, Lithuania, Poland, United Kingdom). It was also noted that the adverse effects of the use of synthetic cannabinoids can be long-lasting, and custody and healthcare staff may have to manage the consequences for months following use (PHE, 2017a). The unintended consequences are also evidenced by prisoners increasingly voicing concerns about the unpredictable effects.

A recent issue of concern is whether staff and other people in prison can be affected by secondary exposure to synthetic cannabinoids, for example by inhaling second-hand smoke. The high potency of some NPS, particularly fentanyl derivatives, also raises a potential risk of accidental exposure (although this is unlikely in a prison setting); nevertheless, appropriate health and safety guidance is important, though this does not appear to exist in many countries (EMCDDA, 2017d).

Negative health consequences have also been associated with the use of new synthetic opioids in prison. Latvia reports that the increasing use of new synthetic opioids in prison has been accompanied by more overdoses and an increase in injecting, including needle-sharing, in prison. Risks associated with the sharing of injecting equipment include the contraction of blood-borne infections, such as human immunodeficiency virus (HIV) and the hepatitis C virus.

Furthermore, the health harms may be exacerbated by polydrug use, as NPS are often used in combination with other substances, including illicit drugs, alcohol and prescribed or misused medicines.

| NPS-related deaths

Estimating the number of deaths related to NPS in prison, as in the general population, is complicated, for a number of technical and practical reasons. Prominent among these are analytical difficulties related to the lack of reference standards for some NPS and the low concentrations at which these drugs may be present in biological samples. In addition, the polydrug use noted above means that NPS may sometimes have played a role in death cases associated with heroin, other opioids or stimulants.

Across European countries the number of deaths in prison where NPS are involved is therefore difficult to quantify. NPS-induced deaths in prison are likely to be under-reported. Deaths directly or indirectly related to the use of NPS in prison have been reported for Germany, Latvia, Poland and the United Kingdom. In England and Wales, between June 2013 and September 2016, 79 deaths occurred in prisons, where the deceased was known or strongly suspected to have taken NPS before death, or where their NPS use was a key issue during their time in prison. Of these 79 deaths, 56 were self-inflicted (Prison and Probation Ombudsman, 2017). This underlines the possible important role of NPS, particularly synthetic

cannabinoids, in aggravating existing mental health conditions or mental states associated with self-harm.

| Impact on prison management and the prison environment

The increasing availability and use of NPS in prison also appears to have a disturbing impact on prison management, including security issues and a disruption of the prison regime. Several countries reported an increase in levels of violence due to NPS use in prisons (Germany, Finland, Poland, Sweden, United Kingdom) and a rise in bullying and aggression associated with the use of NPS in prison.

Violence and bullying are often a consequence of debts among prisoners using NPS, particularly synthetic cannabinoids. In the United Kingdom there have been reports that debts related to synthetic cannabinoids contributed to a general atmosphere of violence and aggression in prison, also affecting prisoners not directly involved and prison staff.

Both Poland and the United Kingdom reported how the increased number of emergency calls related to use of synthetic cannabinoids in prisons can have a direct impact on prison routines. For every person transferred to a hospital, one or more prison staff has to leave the prison establishment, with a direct impact on the organisation of other activities in the prison, such as education, sport or work activities. Reduced opportunities to take part in meaningful activities may lead to boredom among prisoners; this has been referred to as one of the main drivers of substance use in prison. Because of an increased number of emergency calls, health professionals working in the prison context may also have less time for providing the regular prison healthcare. These issues may have a direct impact on entire prisons and the well-being of their prison population.

| Responses to NPS in prison

To date, interventions to tackle the problems related to the use of NPS in prison have tended to be regulatory, focusing on supply reduction and controls. More recently, however, health and social interventions have begun to emerge, although it appears activity levels in this area remain low and information on availability of services or their effectiveness is scarce.

Health and social responses

The rapid emergence of novel products means that developing supportive health intervention responses is challenging, in particular for the prison context (Pirona et al., 2017). Only anecdotal reports on the responses to NPS in European prisons are currently available, and many countries report a lack of appropriate responses.

Some countries report that existing approaches in reducing drug use and associated harms among the prison population have been adapted to incorporate NPS.

Other countries have started to develop specific interventions to respond to NPS problems in the prison setting, mainly focusing on synthetic cannabinoids. Information initiatives and booklets, workshops or training modules focusing on NPS use in prisons have been provided or are currently under development for prison staff in Germany, France, Hungary, Ireland, Poland, Slovenia and the United Kingdom.

In the United Kingdom a wide-ranging programme has been undertaken to counteract NPS use in prison. Among the measures implemented are legislative changes; a smoking ban; the development of new drug tests; information campaigns for prisoners; a national strategy and action plan to respond to prisoners under the influence of NPS; and a new toolkit to support prison healthcare and custody staff to address NPS in prison (PHE, 2017a, 2017b). The toolkit is an adaptation of an existing toolkit on responses to NPS in the community (Abdulrahim and Bowden-Jones, 2015) and aims at providing guidance for the interventions targeting NPS use and related problems in prison. One of the key principles of the toolkit is the delivery of support based on observed symptoms ('treat what you see').

As with responding to drug problems in general, partnerships between prison health services and providers in the community may prove particularly important in supporting the delivery of health education and treatment interventions for NPS use and related harms in prisons and in ensuring continuity of care upon prison entry and release.

Supply reduction responses

Most countries report that no specific supply reduction measures are being taken to reduce the availability of NPS in prison. The actions taken are those that fall under the existing drug supply reduction measures for any substance or other illicit commodities: measures such as cell

searches, visitor control, the use of sniffer dogs and infrastructural changes.

In respect to the use of sniffer dogs, some experts expressed the need to intensify training for canine units to regularly update the substances that can be detected. Given the range of substances and the difficulties inherent in detecting some NPS, this is likely to be a challenging area. In addition, experts highlighted the need for continuous training for prison staff to detect not only the use of NPS, but also possible modes of supply into prison.

Some countries have changed their general rules and regulations to address issues of supply (of NPS) in prison. In Poland, prisoners are no longer permitted to receive food packages sent by third parties, and they are now only allowed to purchase food through the prison canteen service. A similar proposal is pending in Hungary, which also includes a prohibition on tobacco and toiletries being sent by third parties. In the United Kingdom, the Serious Crime Act (2015) made the throwing of any object over prison walls an offence. Finally, in some prisons in Germany, prisoners may only receive photocopies of their letters, in order to reduce the risk of them receiving paper impregnated with NPS.

Key issues

A new challenge for prisons in Europe

This trendspotting study strongly supports the concern that NPS use and related harms are now becoming an important new challenge for the prison system in many parts of Europe.

The use of drugs within prisons has historically been associated with negative consequences, such as the transmission of infections related to the sharing of injecting equipment, initiation into drug use and new drug use patterns and drug-related violence (Boys et al., 2002; Davies, 2004; EMCDDA, 2012). The appearance of NPS in prisons appears to pose additional challenges for practice and policy in this area.

Worryingly, while reports from most countries indicate relatively low levels of NPS use in prisons, this form of drug use often appears to be responsible for disproportionately high levels of health harms and disruption. The negative health impact of NPS use in prison may be exacerbated by the high potency of some of the substances, peculiarities of the prison setting, including overcrowding, and the

unpredictability of some NPS. More generally, harms related to NPS, such as increasing overdoses and related emergency calls, may have a disturbing knock-on effect on the overall prison systems in some European countries. They may lead to a cycle in which problems associated with NPS occupy staff time, which in turn may impact on levels of meaningful activities in prisons, so that prisoners spend more time in their cells feeling bored, which may even lead to increased levels of substance use and other problems.

Synthetic cannabinoids as a particular concern for the prison setting

Synthetic cannabinoids appear to be a particular concern for prisons across Europe. There is a number of reasons for this. They are frequently sold as 'legal' replacements for cannabis and may be used by young, relatively inexperienced users in prison. In addition, a wide range of health harms, such as aggressiveness and anxiety, have been associated with the use of synthetic cannabinoids, which may be aggravated by peculiarities of the prison setting, such as overcrowding and prisoners' pre-existing mental health conditions. Given the potential for synthetic cannabinoids to trigger mental health issues, reports of high levels of consumption among the prison population need to be closely monitored, especially because of prisoners' propensity for addiction and pre-existing mental health conditions (EMCDDA, 2012; Fazel et al., 2017).

The ways in which synthetic cannabinoids are smuggled into prison can also result in additional risks for users. When spraying the substance onto paper to avoid detection, so-called hot-spots may occur. These are areas on the paper with a high concentration of the active compound, which may result in an elevated risk of overdose. It is likely that health harms and other challenges related to the use of synthetic cannabinoids in prison may further challenge the already strained prison system in some countries.

The need to adapt responses to allow for a rapidly changing situation

This study provided a rapid assessment of the current situation in respect to NPS use in European prisons and current responses in this area. It must be acknowledged that this analysis is based on a limited evidence base. Moreover, we are commenting on an extremely dynamic area, where the potential exists for the situation to evolve rapidly. This reflects the rapidly changing and adaptable nature of the NPS market more generally. In this context, it

is important to note that any changes occurring outside of the prison setting in the availability and use of NPS are also likely to have an impact on the patterns of NPS use found, and the associated problems observed, within the prison setting.

The information gathered here highlights the importance of close monitoring of both drug use and the impact of responses, in order to respond to changing drug use patterns and the potential unintended consequences of responses to drug use or wider changes to prison regimes. For example, this study suggests that some individuals may initiate NPS use within prison. One of the important questions this raises is the possible impact of drug use within prison on wider patterns of drug consumption, including the continuation of new patterns of use after release from custody.

The avoidance of positive drug tests has been suggested as motivation for drug users to switch to NPS while in prison. Increases in NPS use in prisons may therefore, arguably, be an unintended negative consequence of random mandatory drug testing programmes in some European prisons. Germany and the United Kingdom have recently introduced testing for synthetic cannabinoids in prison, and the consequences of these measures are still to be evaluated. Any testing regime in these settings has to take into account the possibility of drug substitution. One possible outcome, for example, is that there may be displacement from use of synthetic cannabinoids to other substances, such as synthetic opioids, which may also be extremely harmful. This underlines the importance of accompanying the implementation of responses with monitoring and evaluation to allow practice to be modified where necessary. The introduction of other measures to tackle NPS use and supply in prison may similarly lead to displacement in types of substances used or new modes of supply. It will be important for authorities to be alert for such potential changes and assess their impact on overall harms to develop measures that are comprehensive and effective in order to limit the harms associated with NPS use and other forms of drug consumption within the prison environment.

Definition and data: two linked problems

This study has highlighted a number of problems associated with monitoring drug use in the prison environment, in particular for NPS, and has shown how scarce the information in this field is. The EMCDDA is working to improve data quality, in particular in respect to national coverage and comparability across Europe (EMCDDA, 2014). Studies carried out in European prisons

still use different definitions, methodologies and study designs. To standardise data collection, the EMCDDA has developed the European questionnaire for drug use in prisons (EQDP) and accompanying methodological guidelines (EMCDDA, 2017e).

Monitoring the use and availability of NPS in prisons presents an additional set of challenges: the lack of a common definition of what constitutes an NPS and the use of NPS as an umbrella term; the large number of substances appearing on the market each year; and differences in national legislation and regulation. In addition, methods that rely on self-reporting are less reliable for NPS, as users are often unaware of the actual substances consumed. Furthermore, NPS are chemically very diverse, and because of the difficulties in analytical identification, they may be undetected and under-reported. For these reasons caution is necessary when interpreting and commenting on time trends and geographical patterns.

Conclusion

The research carried out for this study found reports of the use of NPS in prison in most of the countries. The study also demonstrated that while in most countries the use of NPS is currently limited to relatively small numbers of prisoners it can be associated with disproportionately high levels of harm. The study confirms synthetic cannabinoids as the type of NPS most often used in prisons, while observing that the variety of NPS used in European prisons appears to have increased in recent years. It also adds support to the suggestion that different user groups can be identifiable in European prisons (from the young, naive users to those with long drug careers); it describes different motivations for NPS use in prison and highlights the role of innovation for the supply of NPS in prison. Taken together, these conclusions, while not being confirmatory, are useful for informing a debate on how best to improve the monitoring of and responses to NPS use in prison. They also raise a number of important questions that merit formal research follow-up.

It remains unclear whether the increasing number of countries reporting NPS use in prison reflects actual changes in NPS use and availability in prison settings or improved monitoring efforts. Questions also remain about the overall prevalence of NPS use in the prison context (complicated by comparability issues), the scope of initiation of NPS use in prison, use of NPS in place of previously used substances, and the scale and range of NPS-related harms, including the number of deaths.

Important questions to explore in the future include: what is the impact of the emergence of new psychoactive substances on established drug markets in prison? Is there any impact of use during imprisonment on use after release? Will the use of new (potent) synthetic opioids and new benzodiazepines become more common in prison? These questions provide a strong incentive to keep a close watch on emerging trends in this rapidly developing area, which has implications for health both inside and outside the prison setting.

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About this publication

Rapid communications bring you the latest findings and discussions in key areas in the drugs field. This report looks at the use of new psychoactive substances (NPS) in prison settings. This is a rapidly developing phenomenon, but empirical data are currently scarce and patchy. There is growing evidence that NPS are responsible for a large share of drug-related problems in some European prisons and appropriate responses are mostly lacking. This preliminary analysis is the outcome of a targeted rapid information assessment or 'trendspotter' study carried out by the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) between August and December 2017. Trendspotter studies are based on a multi-method approach and expert opinion. They are intended to elaborate emerging issues and prompt discussion and, if required, more formal follow-up.

About the EMCDDA

The European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) is the central source and confirmed authority on drug-related issues in Europe. For over 20 years, it has been collecting, analysing and disseminating scientifically sound information on drugs and drug addiction and their consequences, providing its audiences with an evidence-based picture of the drug phenomenon at European level.

The EMCDDA's publications are a prime source of information for a wide range of audiences including: policymakers and their advisors; professionals and researchers working in the drugs field; and, more broadly, the media and general public. Based in Lisbon, the EMCDDA is one of the decentralised agencies of the European Union.