



# Country report on New Psychoactive Substances in Poland

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## 1 NPS definition

NPS are a relatively new phenomenon in the Polish drug scene, yet they met immediate public response. The public perception of NPS phenomenon has been to some extent shaped by several stakeholders presented in popular media. Their claims delivered rather a distorted view on NPS phenomenon framing the legal highs discourse in the moral panic perspective (Dąbrowska, Bujalski 2013). It can be claimed that the semantic and ontological status of NPS is challenging as their *liquid* nature bring several difficulties to policy makers, law enforcement, treatment and prevention experts (Dąbrowska, Bujalski 2014).

The popular Polish term used to express the notion on new psychoactive substances (NPS) is "Dopalacze" which can be literally translated as „afterburners” as it signifies the potential boost or a high one can get after NPS use (Dąbrowska, Bujalski 2013, 2014.). The term “dopalacze” comes from the name of the popular e-shop “dopalacze.com” launched in 2008. Since then, the term “dopalacze” was widely used by media and several stakeholders during public debates. Media discourse also delivered several different labels describing the phenomenon as ‘legal highs’, ‘smart drugs’, ‘novel psychoactive substances’, ‘new generation drugs’ ‘designer drugs’ or ‘research chemicals’ (ibid.). The use of Polish translation of the term New Psychoactive Substances (NPS) – “Nowe Substancje Psychoaktywne” occurs mostly in a professional discourse and is not common among users and lay people. As the NPS are relatively new phenomenon on Polish drug scene, there is a lack of sufficient scientific knowledge which may serve as a foundation of evidence-base NPS policy. Most of the data on NPS market, prevalence, patterns of consumption comes from the National Bureau for Drug Prevention and has been published in form of reports or in popular-science journals without the peer-review process.

The *liquid* nature of NPS can be found in their social definitions and the perception of risk related to NPS use. At the beginning, these products were promoted as a legal alternative to traditional illicit drugs. They were assumed to be safe – some of them were presented as products awarded with laboratory certificates, however, at the same time they were also provided with a warning label “Not intended for human consumption”. Consumers were offered a vast catalogue of substances and products including herbal mixtures, powders, pills and crystals among which synthetic cannabinoids (e.g. JWH-180, UR-144) were the most popular ones. The catalogue of popular NPS products also consisted of mephedrone (3,4-MMC), penthedron and several cathinones. As a result, several types of products and substances were labeled under the term “dopalacze”, although there was no common understanding of what they are.

The risk related to NPS use was considered a serious threat to public health by politicians and health experts. As a result, in 2010 the amendment to the Act amending the Law on prevention of drug addiction and the Law on State Sanitary Inspection from October, 10<sup>th</sup>, 2010 introduced the definition of NPS together with an attached list of new illicit substances which had been recognized to be dangerous. According to the terms of the Act, the notion of NPS is articulated as “substitute means” (“środki zastępcze”). The article 4.1 delivers following the definition of NPS: *a substance of natural or synthetic origin in any physical condition or product, plant, fungus or a part thereof, containing such substance, used instead of a narcotic drug or psychotropic substance, or for the same purposes as a narcotic drug or psychotropic substance, which production and trading has not been regulated under a separate regulation; the substitute means are not subject to the rules on general product safety.*

The “substitute means” comprise both natural and synthetic substances, excluding substances available on the market under the rules on general safety (e.g. medicines, chemical compounds and products). The above definition does not refer to public health issues while it stresses the “purposes”, in other words, individual motives for use of a given substance. The amendment to the act from 2015 changed the definition of “substitute means” and introduced the term “a new psychoactive substance” to the law. Since then “substitute means” have been considered

*a product comprising at least one new psychoactive substance or other substance with similar effects on the central nervous system which can be used instead of a narcotic drug or psychotropic substance for the same purposes as a narcotic drug or psychotropic substance (...).* This definition delivers more precise criteria for the identification of NPS products and clarifies their constitutional features as those that affect the central nervous system.

The definition of “substitute means” introduced in the Act is followed by another definition presented by the National Bureau for Drug Prevention. On the official NPS-dedicated website run by the Bureau one can find a following description:

*“Dopalacze” - or new drugs - are products of varying composition but having one thing in common: they contain psychoactive substances which act on the human nervous system in a similar manner to the previously known drugs. These substances are both manufactured (e.g.: synthetic) and extracted from plants. “Dopalacze” contain extremely dangerous substances to health and life of a user. Despite the fact that one can find information on their packaging: “The product is not intended for human consumption”, it is sold exactly with such intention. There are substances with different effects within the category of “dopalacze”. They can be divided into three types: 1) stimulating, 2) the hallucinogenic and 3) those marketed as acting similar to cannabis. Most of the “dopalacze” is characterized by the fact that they act on the central nervous system (this is: in your brain), even in small doses. Therefore, it is very easy to overdose, which may cause serious physical and mental health consequences, even death.”* (dopalaczeinfo.pl).

The above definition stresses three distinctive features of NPS: their relation to ‘traditional’ drugs, serious health risks they pose, and their marketing image (in case of most popular synthetic cannabinoids). It resembles the framing of the NPS phenomenon already identified as the pillars of the NPS media discourse (Dąbrowska, Bujalski 2014). The semantic frame of NPS delivered by the media has been created on four dimensions: denotation (by presenting marketing image), associations (by comparisons to traditional drugs), synthesis (by referring to their chemical characteristics) and consequences (by picturing their effects on the mind and body). This complex semantic assemblage is yet another instance of understanding what NPS are.

The problem of the NPS definition is not only of a semantic nature but also reflects their constitutional features. On street level, NPS are faked by other NPS as they have a potential for composing virtually infinite numbers of new products and therefore flood the market in several options and configurations. This multiplicity of substances offer a wide range of experiences for consumers who may switch between different substances virtually everyday but it also poses a serious risk to their health. Each product purchased on the internet, during parties or in stationary shops may in fact comprise unknown compounds. Moreover, there are also unique author’s mixes available on the market that may vary drastically in terms of composition and quality.

## 2 Drug policy frameworks

In Poland, the institution responsible for the implementation and coordination of the national policy on counteracting drug use is the National Bureau for Drug Prevention. As a consequence of framing NPS as part of the illicit drugs problem, the Bureau since the very beginning was actively involved in prevention policy on the NPS issue. In the publication “New psychoactive substances. Problems and response”, the Bureau presented the main directions of actions aimed at limiting the impact of NPS on public health (Jabłoński & Malczewski 2014a):

- legislative changes enabling control of trade in NPS
- prevention addressed to potential NPS users
- immediate legal interventions intended to eliminate NPS from society
- engaging other European countries and the European Commission in the fight against NPS.

The National Bureau for Drug Prevention holds the view that a legal solution is an important but not the only element of dealing with NPS. According to the Bureau it is necessary to invest in other interventions. This is why one of the priorities of the state policy as well as civic society must be public education and prevention, both at a universal and selective level.

The Bureau’s answered to the problem of NPS inter alia by launching a nationwide campaign: “NPS WILL BURN YOU OUT. FACE THE FACTS” targeting the health consequences of NPS consumption. The campaign was mainly conducted online and addressed to young people aged 15-25. The campaign was intended to dispel the myths spread by NPS distributors (e.g. harmless effects of use NPS) by providing reliable data on the risk associated with using NPS and their real legal status.

Another awareness campaign implemented by the National Bureau for Drug Prevention was called “NPS-burn out” and was addressed to parents and educational communities. The campaign was based on the assumption that social and parental control should be used to prevent NPS problems. The campaign offered a scenario for parental meetings and leaflet. The scenario enabled school and educational professionals to conduct meetings with young people’s parents and legal guardians. The campaign materials were also available at the National Bureau for Drug Prevention website.

An important element of the structural approach to reduce the prevalence of NPS use was a universal drug prevention programme commissioned by the National Bureau for Drug Prevention. It was based on activating methods and addressed school-age adolescents. The aim of this project was to provide young people with basic knowledge of NPS to enhance more informed decision-making.

In recent years, a host of prevention materials was developed by the National Bureau for Drug Prevention. Most of these materials have been already published and are available at the Bureau’s website ([www.kbpn.gov.pl](http://www.kbpn.gov.pl)):

1. Universal prevention programme “Taste of life – NPS debate”
2. Guidebook for parents “Closer to each other- further away from drugs”
3. Scenario for a 2-lesson parental meeting on NPS to be held at schools

4. Guidebook for parents “On pharmaceuticals, cannabis and new psychoactive substances without hysteria” (Jabłoński & Malczewski 2014a)

There were also NPS prevention and education activities implemented by institutions other than National Bureau for Drug Prevention. The Ministry of National Education launch the distribution of materials on NPS prevention among school pupils, coordinated by heads of schools and other educational institutions. Their own spots aimed at warning young people against NPS have been prepared by the Metropolitan Police Command and State Sanitary Inspection.

In July 2015, the Prime Minister and ministers of national education, internal affairs, justice, health, administration and digitization, as well as the ombudsman for children, and representatives of various NGOs, including the Polish Scouting Association and MONAR (a major NGO in drug prevention and treatment) signed the *Social Pact Against NPS*. Its aim is to coordinate activities of various institutions and organizations which deal with the problem of NPS. As the pact was signed, the social campaign "NPS steal a life", which aim is to raise awareness about the dangers of NPS use among young people kicked off under the leadership of the Minister of the Internal Affairs and Administration (<http://www.dopalaczekradnazycie.pl>). The campaign is addressed to parents, teachers and others who come into contact with young people, as well as to young people themselves. The campaign delivers knowledge on safety measures, informs about possible side effects of NPS consumption on the users' health and shows how to behave in a risk situation and where to seek help.

An important element of Polish government's response to NPS related threats was the international cooperation. Poland, in the course of preparations for the Presidency of the Council of the European Union, as well as during its EU Presidency, paid particular attention to health policy, including public health and the issue of NPS use and abuse. Upon initiative of the Polish government, the NPS problem was analyzed on the EU forum. Poland considered research into NPS and the implementation of effective strategies as one of the priorities of the presidency. Polish representatives contributed to the implementation of a European Pact against synthetic drugs. Chapter 3 of the Pact is dedicated to NPS and indicates a joint EU approach as the appropriate response to the phenomenon of using new distribution channels of NPS (Jabłoński & Malczewski 2014a).

### 3 Legislative framework & implementation

The legal issue of New Psychoactive Substances (NPS) is regulated in the Act of 29 July 2005 on Counteracting Drug Addiction (Dz.U. 2005 Nr 179 poz. 1485). The list of illegal substances is specified in annexes to the Act which are updated when new substances are detected on the market. The list contains internationally recommended names, other names and chemical names of new psychoactive substances.

Until March 2009, NPS were licit substances on the Polish market, and the law did not regulated their status. Yet, at that time the first amendment to the Act was implemented expanding the list of substances under control of the state. The list included substances such as benzopiperazine (BZP), opioid receptor agonists (JWH-018) and 15 plants, found to be most common ingredients of New Psychoactive Substances<sup>1</sup> described on their packages (Kapka-Skrzypczak et al. 2011; Jabłoński & Malczewski 2014a). The legis-

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<sup>1</sup>Argyreia Nervosa, Banisteriopsis Caapi, Calea Zacatechichi, Catha Edulis, Echinopsis Pachanoi, Kava Kava, Leonotis Leonurus, Mimosa Tenuiflora, Mitragyna Speciosa, Nymphaea Caerulea, Peganum Harmala, Rivea Corymbosa, Salvia Divinorum, Tabernanthe Iboga, Trichocereus Peruvianus.

lative process of that amendment lasts almost one year, since March 2008 when the Council of the European Union has decided that BZP should be treated as an illicit substance and charged with criminal sanctions (Kidawa 2012).

Penalization of plants, not active chemical substances, sparked controversy and consternation among law enforcement authorities who did not have tools to identify the materials that required botanical analysis. These plants were often exotic which caused difficulties in obtaining them as reference material in the process of identification (Kidawa 2012).

In 2010 and 2011 legislative actions against New Psychoactive Substances became more intense. At that time three amendments were adopted. Two of them expanded the catalogue of illicit drugs. The first one from 2010 penalized substances mainly from the group of synthetic cannabinoids<sup>2</sup> and mephedrone. The amendment from 2011 expanded the catalogue by another 23 substances detected in NPS available on the market (Kapka-Skrzypczak et al. 2011; Jabłoński & Malczewski 2014a).

In the amendment from 2010, in addition to the expansion of the list of illegal substances, a New Psychoactive Substance was defined as a substitute drug (see chapter 1). It was the first definition used in legislation which helped law enforcement authorities in classifying what is and what is not New Psychoactive Substance.

The amendment from 2010 banned the “advertising and promotion of food or other products by suggesting that they have effects of psychotropic substances, narcotic drugs or their consumption, even against the intended use” (article 20, Act on Counteracting Drug Addiction 2005). Violation of the law in that field is subject to a fine, the penalty of limitation of liberty, or deprivation of liberty, for a term up to 1 year (article 68, Act on Counteracting Drug Addiction 2005).

The same amendment regulated the supply of NPS, manufacturing and introducing substitute drugs onto the market, and banned it under the penalty of the fine. Control over supply of NPS has been delegated to the Chief Sanitary Inspector who, with help of the State Sanitary Inspection, has the right to withdraw the product from the market if it is considered unsafe for the period necessary to conduct an assessment and research into its safety, which should take no longer than 18 months. Costs of these analyses are incurred by the subject of proceedings – by the seller or in the case the product becomes legal the costs are reimbursed (Jabłoński & Malczewski 2014a). The delegation of these tasks to the State Sanitary Inspection stems from the fact that the NPS represent a potential threat to public health, and the main purpose of the State Sanitary Inspection is to protect human health (The Act on State Sanitary Inspection, Dz.U. 1985 nr 12 poz. 49).

The NPS market responded to the amendments with more new substances and products replacing those now prohibited by law. Since then, the process of extending the list of “substitute means” has begun. The Act has been updated with next amendments, last time in July 2015 delivering the list of more than one hundred new psychoactive substances to be banned. It was the largest supplement in the history of the struggle with NPS. At the same time the definition of New Psychoactive Substance was introduced (see chapter 1) (Amendment of 24.04.2015 to the Act on Counteracting Drug Addiction, Dz.U. 2015 poz. 875). The amendment implemented a ban of import of New Psychoactive Substance from other countries, making the Customs Service responsible for its control. Additionally, an advisory board was established

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<sup>2</sup> JWH-073, JWH-398, JWH-250, JWH-200, CP 47,497 + homologues, HU-210

under the leadership of the Minister of Health. The purpose of this think tank is the risk assessment of threats to the health or life of the people who use New Psychoactive Substance. “The team will include experts in the field of chemistry, pharmacology, clinical toxicology, psychiatry, social sciences and law. The team will present to the Head of the Ministry of Health recommendations in respect to the inclusion of certain substances in the list of drugs, psychotropic substances and new psychoactive substances” (Website parliament, date of access: 04.12.2015).

In the opinion of lawmakers, the New Psychoactive Substances related legislation targets individuals and entities introducing NPS onto the market, not consumers, who should be treated as victims (Jabłoński & Malczewski 2014a). Its focus is placed on the reduction of supply by eliminating particular substances from the market by extension of the list of illicit substances attached to the Act on counteracting drug addiction. The strategy is difficult and time consuming because the preparation of amendment and legislation process is long and requires cooperation of several institutions.

## 4 NPS drug market description

The year 2008 was a breakthrough in the Polish NPS market. Despite the fact that the NPS were earlier available on the Polish market, especially at the online forums, a real revolution has taken place with the introduction of the website [www.dopalacze.com](http://www.dopalacze.com) where users were able to purchase a wide array of substances. The website had aesthetically pleasing graphic images and was managed by professionals. In 2008 online shops started promoting sale of NPS by using social media, especially Facebook and users' online forums. These were the new tools in the marketing strategy which focused on advertising with a message that NPS are safe alternative for illicit drugs (Zakrzewski 2011; Jabłoński & Malczewski 2014a).

In mid-2008 in Łódź the first shop that sold NPS was opened; it was the first step in spreading the trade of these substances outside the internet. In a short time (half a year) about 40 retail outlets appeared offering the NPS, mainly located in the centres of large towns (Jabłoński & Malczewski 2014b). The next step in developing the physical shops network was the introduction of retail outlets under the name “Dopalacze.express” in small towns (Malczewski 2015a). Until the end of 2010 almost 1300 shops were part of the sales network of NPS. Main players on the market were “dopalacze.com” and “smartszop”. The rapid quantitative spread of the retail outlets was possible due to a very fast and fairly easy path for potential entrepreneurs. Shops were founded on franchise basis and available to everyone who had the amount of 20-30 thousand Polish zlotys (about 5-6 thousand Euros) (Jabłoński & Malczewski 2014b). Consumers were offered a vast catalogue of substances and products including herbal mixtures, powders, pills and crystals, among which synthetic cannabinoids (e.g. JWH-180, UR-144) were the most popular ones. The assortment of popular NPS also consisted of mephedrone (3,4-MMC), penthedron, alpha-PVP and several cathinones.

New Psychoactive Substances were offered as a collector's item not intended for consumption which facilitated the introduction of NPS on the market without the standard procedures for manufacturers whose products are intended for consumption. Initially, NPS often included a list of compounds on their packaging and some of them were presented as products awarded with laboratory certificates, proving that they were not illegal substances. As the result of expanding the list of substances that were under state control in 2009, the information on composition of products was removed from the packages (Jabłoński & Malczewski 2014b).

In October 2010 more than 1300 retail outlets offering NPS were closed down based on the decision of the Chief Sanitary Inspector who claimed that NPS have negative effects on human health. For the next few weeks the online shops offered wholesale quantities of NPS at discount rates. After the amendment from 2010, expanding the catalogue of illicit drugs banned under penalty for manufacturing and introducing “substitute drugs” onto the market, online shops ceased their activity on Polish servers and moved mainly to Czech, Slovak and Dutch servers. The police data show that mid-2011, 43 online shops selling NPS operated on the market (Zakrzewski, 2011; Jabłoński & Malczewski 2014b).

In 2011 the NPS market began to recover, slowly at first, but in 2014 the police registered more than 100 physical shops offering NPS products. The legislative framework forced a change in the marketing strategy. Physical shops were no longer the stores operating within the brand network (e.g. Dopalacze.com) as it used to be before 2010. Retail outlets started to hide NPS among other products (i.e. pawnshops, hot spots, sex shops, shops offering sport supplements) and did not place advertising banners. The aim of such activities was to cover up the sale of NPS. Changes also occurred in the sale of NPS in online shops. Very often there is no information about the type of psychoactive substance a particular NPS product contains. Some webpages offer pure substances as compounds for chemical analysis in a form of chemical reagents. There are also webpages which business profile is on research chemicals that can be used for testing. Purchasing the NPS through the internet is fairly easy; there is no need to use a credit card or paying by bank account. Many stores offer the option to pay on delivery at the post office. A buyer just has to complete the name and address form to receive NPS in an ordinary envelope within 3-4 days (Malczewski, 2015). Purchasing NPS in online shops involves risk. The I-Trend survey shows that the purity of substance varies depending on the store and is not related to the price. Purity of NPS in Poland ranged from 19% to 99% in the product sold as ETH-CAT, which contained pentedrone, in alpha PVP from 57% to 92%, in UR-144 from 34% to 70% and in AM-2201 (synthetic marijuana) from 51% to 53% (Malczewski, 2015 c,d).

However, data from three studies conducted among different populations show that face to face transactions are more common than internet purchases. In the recent online study conducted in 2015 (I-Trend project) internet was not the first source of NPS products. Most of I-Trend survey respondents received or bought NPS from their friends. Purchases in physical shops or e-shops were less common and were found on the third and fourth place of the list (Malczewski, 2015d). Data from interviews with opiate users show that most of them received NPS from friends or bought from street dealers (Michalewski, 2015). According to a general population survey from 2015, 60% users get NPS products from their friends; 32% purchase NPS on the internet; and 17% buy NPS in physical shops (Malczewski, 2015c). It seems that the ban on NPS has not successfully wiped out all stationary shops and new ones appear under the property of new companies, often having the status of limited liability companies (Malczewski, 2015a). Moreover, NPS can be also bought via phone.

The NPS market in Poland was targeted by Law enforcement activities. Since lasts 4 years an increasing number of samples taken for lab tests and seized products can be observed, as well as an increased amount of imposed fines. In 2013 Customs Service, Border Guard and the police seized almost 3 kilograms of Mephedrone, almost 1 kilogram 4-MMC, more than half kilogram of MDPV and 110 grams of synthetic cannabinoids (Jabłoński & Malczewski 2014a).

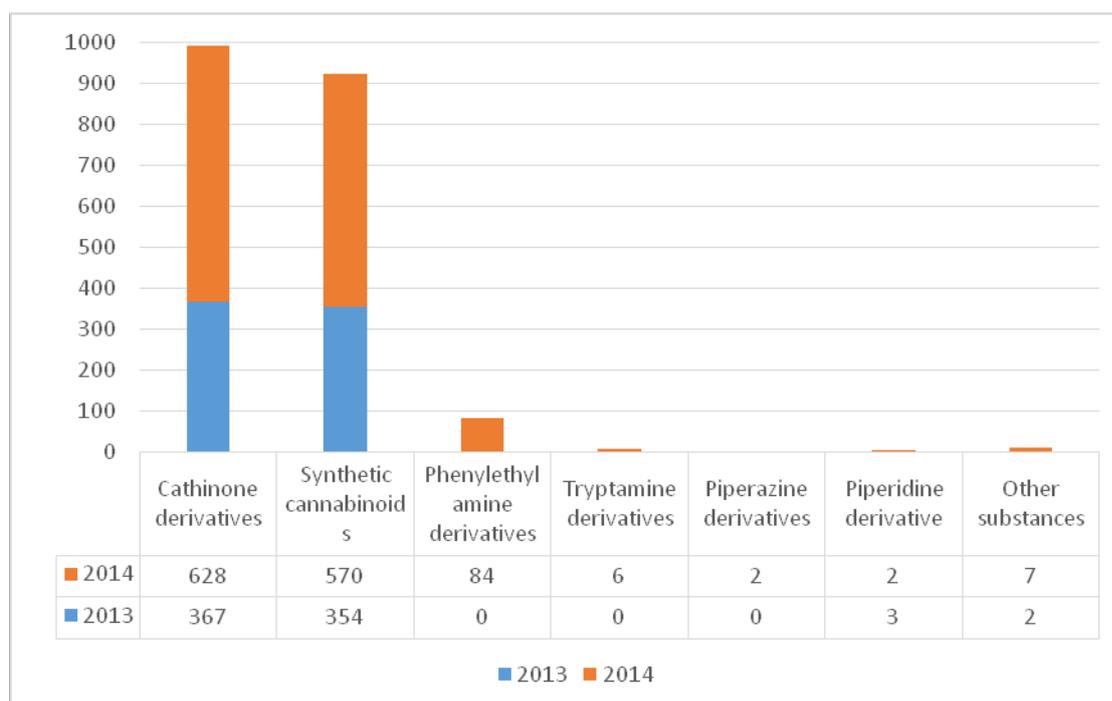
Table 1. Operations of the State Sanitary Inspectorate in the field of substitute drugs in 2011-2014.

Year	Total inspections	Fines imposed (PLN)	Total entities found to be introducing substitute drugs to the trade	Total samples taken for lab tests	Total products seized
2011	335	0	11	35	1 819
2012	548	495 000	103	443	19 997
2013	779	10 669 370	134	1 448	28 402
2014 (6 months)	333	7 790 100	128	728	25 389

Source: Biafas (2014)

In 2013-2014 Polish NPS mostly contained cathinone derivatives and synthetic cannabinoids, less frequently phenylethylamine derivatives (see figure 1). Top 5 psychoactive substances in NPS were UR-144 and 5-FUR-144 substances from the group of cannabinoids, pentedron and 3-MMC from the group of cathinone and 25I-NBOMe from the group of phenylethylamine (GIS 2015).

Figure 1. Frequency of occurrence of new psychoactive substances groups in the years 2013-2014.



Source: GIS Report (2015), p. 14

As chemical analyses of seized NPS products show, different substances are offered as a particular NPS product and several NPS products are composed of the same or similar compounds. According to recent research, only one in three NPS ordered through websites is in fact the substance specified in the description or was composed of the specified ingredients. The composition of popular synthetic cannabinoid called "Mocarz" ("Strongman") has been changed a few times in the last years: in 2010 it was composed of Wh-203, JWH-081, JWH-019, in 2014 UR-144, 5F-AKB48, and in 2015 UR-144, 5-FUR-144. In fact, these were four different mixtures of synthetic cannabinoids, which eventually lead to severe poisonings in

2015 (Malczewski, 2015b). Also the purity of NPS differs significantly. Chemical analysis of ETH-CAT showed its purity varies from 37% to 99%. In another reported case, consumers who aimed at buying 3,4-MMC, in fact received penthedron (Malczewski, 2015c,d). This situation poses a huge risk to NPS users as they do not have sufficient knowledge about the safe dosage and intake. Moreover, consumers often don't know the name of a substance or even the name of NPS products and use street names instead. The street names refer to their shape of physical traits - as "crystal", "star", or they generalize product names as "Amphibian" (based on Alpha-PVP), "Thor's hammer" (based on 3,4-MMC), "Spice" (based on JWH- and UR- group compounds) (Michalewski, 2015). According to a recent internet survey nearly half of the respondents didn't know what substance they used during the last occasion (Malczewski, 2015b).

## 5 NPS demand

### 5.1 Prevalence

The majority of data on prevalence of NPS use in Poland comes from three different surveys commissioned by the National Bureau of Drug Prevention (General Population Surveys, 'Youth' study, 'Omnibus' study), and the ESPAD study carried out by Institute of Psychiatry and Neurology, National Bureau for Drug Prevention and The State Agency for the Prevention of Alcohol-Related Problems. The data are representative for the general population as well as different segments of the population covering mainly young people; however, so far there is no existing representative data for cities, including Warsaw.

According to a recent general population survey implemented by the National Bureau of Drug Prevention in early 2015, 2% of Poles aged 15 and over declared NPS use in their lifetime, 0.5% in the last year and 0.2% in the last month (Badora et al. 2015).

Data from another survey ('Omnibus') from 2013 show that the lifetime NPS prevalence in Poland was found to be the highest in the age group 20-24 year olds (8%) – twice more than in the group 15-19 year olds (4%) and even more than among 25-34 year olds (3%). The highest rate of consumption (3%) was present in small/medium cities (up to 100 thousands inhabitants) while the smallest one (1%) in big cities (more than 500 thousands inhabitants). Individuals with university education level were more likely to use NPS (3%), than those with primary education level (1%) (Malczewski, Misiurek 2014).

More detailed information on NPS prevalence among young people can be found in a sequence of measurements commissioned by National Bureau for Drug Prevention within the 'Youth survey' project, conducted among a cohort of 18-19 olds. The first measurement was implemented in 2008, when the first smart shops were set up across Polish cities; another in 2010 when physical shops were operating in a full effect; and the last in 2013 when the ban on NPS sales had been already in place for 3 years. This diachronic dimension offers a decent picture of the impact of NPS on the legislation in Poland. Lifetime prevalence of NPS use between 2008 and 2010 increased from 3.5% to 11.4 % and dropped to 5.2% in 2013. The same pattern was found in the current use (last 12 months); however the percentages were considerably smaller: 2.6% in 2008; 7.2% in 2010; 2% in 2013. The percentage of recent use (last 30 days) dropped from 1.3% in 2008 to 1% in 2010 and remained at the same level in 2013. The decline in NPS prevalence was associated with lower availability of NPS products; as every third juvenile respondent claimed that getting NPS was easy in 2010, three years later the same opinion was shared by every fifth respondent (Jabłoński & Malczewski 2014b).

The results of the 2011 ESPAD study among the school population aged 15-16 and 17-18 set the lifetime NPS prevalence at 10.5% and 15.8%, respectively. The difference between age groups decreases in the last 12 months NPS use - found on the level of 7.1% among 15-16 year olds and 9% among 17-18 year olds, and it almost levels-out regarding last 30 days use: 2.5% and 2.2% for these age groups respectively. When comparing these results with data from the latest ESPAD 2015 edition, there is clear evidence that NPS consumption has stabilized among 15-16 year-olds and decreased among 17-18 year-olds as it comes to the lifetime prevalence, found on the level of 10.3% among 15-16 year-olds and 12.6% among 17-18 year-olds. Also the rates of last 12 months use were almost the same among 15-16 year olds (6.9%) but decreased by 1/3 among 17-18 year-olds (6%). Yet, the increase of NPS consumption was noted regarding last 30 days NPS use in both age cohorts: 4.3% among 15-16 year-olds and 3% among 17-18 year-olds. In both editions of ESPAD studies presented above, the NPS consumption was twice higher among boys than among girls.

## 5.2 Different groups using NPS

Basically, NPS users can be divided on the rationale of social integration. Therefore one can distinguish two groups: socially marginalized users and socially integrated users. The first group consist mainly of opiate users and IDUs, often unemployed, operating within "street drug scene". They use opiates, synthetic opiates and stimulants. Members of this group often lack knowledge on consumed substances, even those of them who deal drugs. They are a high-risk group due to the high number of daily injections – because of the short period of NPS intoxication, the number of injections varies from 10 to 15 times a day (Michalewski 2015). On the contrary, socially integrated users are those who use NPS in a recreational manner; they work or study, use illicit substances during weekend parties, mainly cannabis or synthetic cannabis but, also to some extent, stimulants.

Another group that can be found among NPS users are experimentators. They are characterised by extensive, advanced and state-of-the-art knowledge on NPS, including their compounds, function, dosage, effects. They experiment with novel substances to find new unique experiences. Members of these groups are also active on the internet, where they can share stories of their trips, knowledge and experiences (ibid.).

According to a recent online survey, the most popular way of NPS consumption in Poland is smoking (48.5%), mostly for synthetic cannabinoids; and sniffing – which is common for cathinones intake (48.2%). NPS are consumed rather socially, more often within the group of friends than alone. 65% of users reported using NPS together with their friends, almost half of them in their homes (30%). Only 11% consume NPS on their own. The same survey delivers data on knowledge of NPS use and NPS-related risks among users. Two in three respondents claimed to have sufficient knowledge of NPS effects, 55% information on the health risks; and 53% information on a safe dose. According to every second user, NPS are relatively safe. The legal status of NPS was not a major reason for their consumption. It is mainly a question of occasion, opportunity and curiosity (75%), good availability (68%) and quality (53%). 35% claimed that they use NPS because they are hard to detect in testing or because their use is not prohibited (Malczewski 2015c,d).

Also respondents from another online survey conducted within the ReDNet project claimed that willingness to experience with new substances (65%) and easy access (62%) were the most important reasons for NPS use. However, the legal status of NPS was essential for 57% of users. The results of a logistic re-

gression show that risk of NPS use was higher for individuals younger than 21 years old; having good knowledge and positive experiences with NPS; and using other drugs (Pisarska et al. 2013).

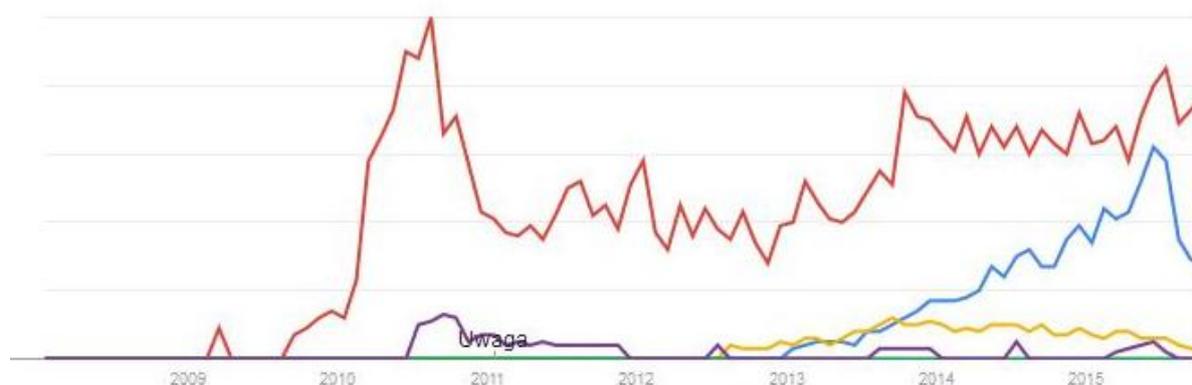
### 5.3 Ways of administration

The knowledge on ways of administration of NPS among users in Poland is limited. According to an online survey (I-Trend 2015) the most popular way of NPS use was smoking and sniffing: 48,5% of the respondents smokes NPS products and 48,2% sniffs. 16% declare they swallow NPS. Smoking is the most common way to use synthetic cannabinoids but also cathinones such as Alpha-PVP. Only 2% of respondents declared using NPS through injections (Malczewski 2015c). It should be stressed that the above results might be biased and therefore misleading as the sample comprised mostly students and school pupils. The results of qualitative studies among IDUs may indicate that NPS already serve as a popular alternative to opiates (Michalewski 2015).

### 5.4 Recent trends

It can be hypothesized that the recent trends in NPS in Poland are shaped by changes in the legislation. As particular substances become blacklisted, the new ones take their place. The invention and creativity of producers may result in increased level of health risks that are most noticeable to general public due to extensive media coverage on cases of NPS poisonings. However, interest in NPS may be relatively large even if particular substance has been banned. Such regularity can be found in the internet data. According to Google trends, Polish internet users were mostly interested in mephedrone. The number of search for mephedrone increased twice – the first time in 2010 and the second time after its ban in 2011. From 2013, new substances appeared on the market and shortly gained popularity as 3MMC.

Figure 2. The popularity of different NPS in the Polish internet. Search results for term “3-MMC” (blue) and “mephedrone” (red), “penthedrone” (yellow), “Alpha-PVP” (green), “MDPV” (purple) in Google Trends

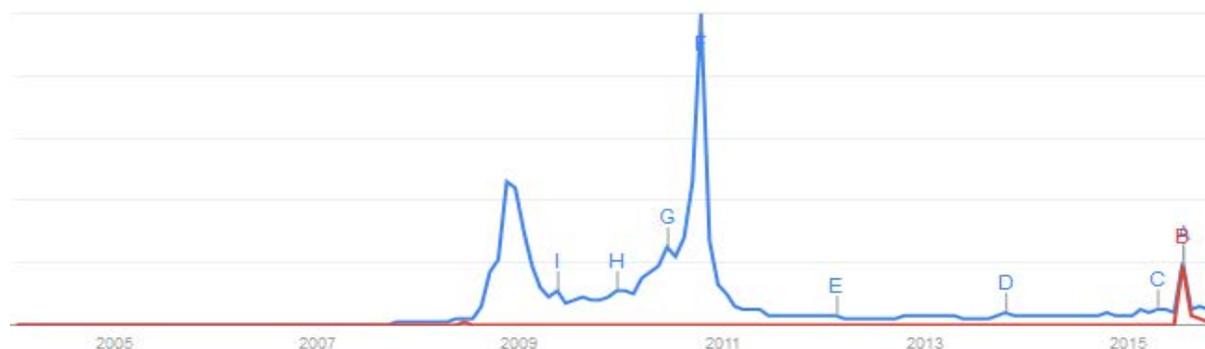


It has to be stressed that one of the key elements of the NPS promotion among users is the internet with vast resources of information in the form of message boards, forums, blogs, sites and social media accounts, not to mention the internet’s darknet: tor or Silk Road. These sites play an important role in popularization of individual experiences – as trip reports and dissemination of knowledge as well as provide an opportunity for NPS marketing and doing purchases on the web. Most of the new substances and products available on the market are described along with their characteristics and effects.

It can also be claimed that popularity of NPS is also a side effects of extensive media coverage focusing on drastic cases of poisonings and (alleged) deaths and dubious and unprofessional health communication

presented in campaigns launched by public institutions. A good example of a failed public campaign launched in response to an increasing number of media reports on NPS poisonings in July 2015 was “Stop dopalaczom” (“Stop the legal highs”) campaign implemented by the Chief Sanitary Inspection – a public administration body formally obligated to conduct monitoring of NPS market and to administer penalties to subjects manufacturing or selling NPS products. This was not the first time when increased media reporting on NPS bring about public interests in the issue as it already took place in 2009 and 2011 (Dąbrowska, Bujalski 2013). The campaign became controversial after two short videos went viral across social media. However, the reason of its popularity was not a public awareness of NPS risk but rather the bizarre and amateurish style of these videos, one of them featuring the head of Chief Sanitary Inspection rapping about the synthetic cannabinoid called “Mocarz” (“Strongman”). The response from the audience was immediate and devastating. Facebook, Twitter and YouTube were full of mocking comments on Chief Sanitary Inspection: “These are the movies one can make when using NPS?” , “The only thing this video has in common with NPS is that its director would use it” , “I love when adult people try to make something that look like a youth-thing” (gazeta.pl 2015). Several communication experts criticized the form and message of campaign as well as stressed that it should become a symbol of a low standard in a public health communication. Nevertheless, the media noise around the “Mocarz” and social media response made it popular. In fact “Mocarz” has never received such elevated public interest ever before and ever after (see graph 3).

Figure 3. The popularity of NPS on the Polish internet. Search results for term “dopalacze” (blue) and “Mocarz” (red) in Google Trends



## 6 Prevention activities

### 6.1 Supply reduction measures

The State Sanitary Inspectorate regularly monitors cases of NPS manufacturing or marketing. State sanitary inspectors obtain information about trade in NPS by their own investigations or receive information from institutions such as the Police, Central Investigation Bureau, Customs Services, or the tax offices. This cooperation, especially with the Customs Services, the Police and the Main Pharmaceutical Inspectorate, is formalized through an agreement concluded on 26 October 2011.

The State Sanitary Inspectorate has shop controls among its tasks, to examine whether they sell banned substances. In October 2010, officers of the State Sanitary Inspectorate accompanied by police officers closed down all smart shops and NPS wholesale businesses across the country. These activities were supported by the Act on State Sanitary Inspectorate. The articles 27.1 and 31a provided that on the event of immediate danger to human life or health, a state sanitary inspector orders e.g. lockout of the company

or part thereof, closure of a public utility building, withdrawal from trade a food product that might have impact on human health, engagement or stopping of other activities. As a result of this activities 12 000 NPS samples were seized, the majority of which were subsequently lab tested.

The Department of Supervision of NPS, operating in The State Sanitary Inspectorate, since its establishment in 2011, monitors the internet in order to estimate the scale of the phenomenon and combat trafficking in NPS in the internet. It collects information on emerging psychoactive substances and communicates the decisions of the state sanitary inspectors to the public. The Department has been constantly monitoring approx. 40 shops offering NPS. Thematic forums, social networking sites and private ads posted on all kinds of web pages are also monitored.

## 6.2 Demand reduction

Strategies for reducing the demand for NPS are the same as those used for traditional drugs: prevention at schools, media campaigns and treatment. In prevention campaigns emphasis is placed mainly on the fact that young people don't know what substances are hidden under industry names, which causes an increased risk of health complications.

Persons with acute NPS poisoning with less severe symptoms rarely go to health care centres. In the case of severe forms of acute poisoning they get a referral to hospital wards. Problems causing the need for intervention are consciousness disorders including coma, vegetative significant hyperactivity (including hypertension, increased heart rate with the possibility of life-threatening arrhythmias), increased body temperature, disorders of water and electrolyte and impairment of vital signs (heart failure or respiratory). The treatment consists of maintaining vital functions and symptomatic treatment, using the experience in treating poisonings caused by other more well-known substances. NPS users with signs of addiction get a referral to drug addiction treatment, where the main goal of treatment is to maintain abstinence. There are no separate programs for NPS users.

## 6.3 Harm reduction

A good example of a project in the area of harm reduction is the "Party project" coordinated by MONAR, where beneficiaries are participants of parties who experiment with drugs, especially synthetic ones. The program objective is to reduce the health and social harm associated with drug use among the participants of the musical events - occasional drug users. During events, party workers provide assistance to people in a poor mental and physical condition. They provide information about the dangers of a drug use and assistance opportunities through distribution of leaflets and during individual conversations. They also provide information on safe sexual behaviour and HIV / AIDS risk. Furthermore they distribute water to drink, condoms and earplugs during events.

## 7 Summary

The year 2008 witnessed a breakthrough in the Polish NPS market. A real revolution has taken place with the introduction of the website [www.dopalacze.com](http://www.dopalacze.com), where users were able to purchase a wide array of substances practically without any restrictions. In mid-2008 in Łódź, the first shop with NPS was opened; it was the first step in spreading the trade of these substances outside the internet. In a short time (half a year) about 40 retail outlets appeared offering NPS, mainly located in the centres of large towns (Jabłoński & Malczewski 2014b). In 2010, the market had a breakdown after closing more than 1300 retail



outlets offering NPS. In 2011 the NPS market began to recover, slowly at first, but in 2014 police registered more than 100 physical shops offering NPS products.

Despite the fact that NPS were present on the market and they were the subject of public discussion, many difficulties were encountered in defining this new phenomenon because of its specific nature. The several definitions of NPS which operate in the public debate and legislation most often refer to the following distinctive features of NPS: their relation to 'traditional' drugs, serious health risks they pose, their marketing image (in case of most popular synthetic cannabinoids) or individual motives of use of a given substance.

An estimation of NPS prevalence among young people was the aim of 'Youth survey' project conducted among a cohort of 18-19 olds which provides three measurements (2008, 2010, 2013). Lifetime prevalence of NPS use between 2008 and 2010 increased from 3.5 % to 11.4 % and dropped to 5.2% in 2013. The same pattern was found in the current use (last 12 months); however the percentages were considerably smaller: 2.6% in 2008; 7.2 % in 2010; 2% in 2013. The number of recent use (last 30 days) dropped from 1.3% in 2008 to 1 % in 2010 and remained at the same level in 2013.

It can be hypothesized that the recent trends in NPS use in Poland are shaped by changes in the legislation. As particular substances become blacklisted, the new ones take their place. The inventiveness and creativity of producers may result in increased levels of health risks that are most noticeable to general public due to extensively media coverage on cases of NPS poisonings.

In Poland, the institution responsible for the implementation and coordination of the national policy on counteracting drug use is the National Bureau for Drug Prevention, and as a consequence of the recognition of NPS in the context of illegal drugs problem, the Bureau was involved in NPS policy framing since the very beginning. The State Sanitary Inspectorate is responsible for the market monitoring in order to estimate the scale of the phenomenon and combat trafficking in NPS.

Legal attempts to regulate the problem of NPS are primarily focused on expanding the list of banned substances and control of supply of NPS. The solution directly referring to the protection of public health was the establishment of an advisory board under the leadership of the Minister of Health. The board's tasks cover the risk assessment of threats to the health or life of the people who use New Psychoactive Substances.

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## 9 Legislation acts

The Act of 29 July 2005 on Counteracting Drug Addiction (Dz.U. 2005 Nr 179 poz. 1485)

The Act on State Sanitary Inspection (Dz.U. 1985 nr 12 poz. 49)

The Amendment of 24.04.2015 to the Act on Counteracting Drug Addiction, (Dz.U. 2015 poz. 875)

## 10 Internet websites

Website of parliament:

<http://www.sejm.gov.pl/Sejm7.nsf/komunikat.xsp?documentId=71E96A1EFBECDF2C1257E6F0036B975>,  
date of access: 04.12.2015

[http://dopalaczeinfo.pl/strony/co\\_to\\_sa\\_dopalacze#co-to-sa-dopalacze](http://dopalaczeinfo.pl/strony/co_to_sa_dopalacze#co-to-sa-dopalacze), date of access: 07.12.2015

<http://www.dopalaczekradnazycie.pl/>