NEW PSYCHOACTIVE SUBSTANCES
PROBLEM AND RESPONSE

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Introduction

The last decade of the 20th century saw a decrease in the prevalence of illicit substance use. The results of the IPiN study (ESPAD) and the CBOS Foundation (Youth) revealed lower drug use prevalence rates in 2003-2007 and 2008. A substantial improvement in the epidemiological area as well as health and security of both problem and occasional drug users was recorded in the Polish drug policy. However, these positive trends have been challenged in recent years by new developments, of which the most visible one has become the trade in new psychoactive substances (NPS), commonly known in Poland as ‘dopalacze’ (literally translated as afterburners) and ‘legal highs’ or ‘designer drugs’ in Western European literature, though these are not scientific terms. They started to be used colloquially and across the media to denote a whole range of substances or products with alleged or real psychoactive effects. These drugs might be of natural or synthetic origin and their distinguishing feature is the fact that they are not listed as controlled substances according to either international or national laws. It does not mean that in Poland they are not listed in schedules to the Act of 2005 on counteracting drug addiction. It is worth pointing out that one name covers a wide range of substances of various effects including stimulant-like MDPV, cannabis-like substances such as UR-144 and hallucinogen-like 251-NBOMe. Another term used in describing legal highs is new psychoactive substances (NPS). This term, depending on authors, includes both substances defined according to the abovementioned Act as ‘substitute drugs’ and synthetic amphetamine-type stimulants as well as cold/cough medicines containing psychoactive substances such as pseudoephedrine, dextromethorphan, benzydamine or codeine, which is a base substance for obtaining a new and reportedly extremely dangerous drug called ‘Krokodil’ (so far reaping a deadly harvest in Russia and Ukraine though its incidental use has also been recorded in the EU). The 2010 amendment of the Act of 2005 on counteracting drug addiction introduced a new term to denote ‘legal highs’ i.e. a substitute drug. Currently, work is underway to amend the Act in order to change the provisions regarding NPS. For example, the amended Act is intended to feature a definition of a new psychoactive substance along with the list of such substances. At the same time, a survey at http://www.i-trend.eu/survey.htm is being conducted in order to collect data on the perception and use of NPS. The project is being implemented by the University of Social Sciences and Humanities in Warsaw under the EU-sponsored I-Trend project. The online questionnaire is one of
a number of research methods that are being applied in the study. The other methods include chemical tests of NPS as well as monitoring both drug-related Internet forums and online stores.

**Historical background**

New psychoactive substances were present on the Polish drug scene before 2008. At the beginning, there were occasional sale offers of psychoactive substances on the Polish Internet forums, which were in compliance with legal regulations at that time. In 2008, a website called ‘dopalacze.com’ was launched. It offered a new quality approach in terms of professional and marketing strategy. The website products were advertised as safe alternatives to illicit psychoactive substances. One advertising slogan of ‘dopalacze.com’ emphasised the harmless effects of its products: ‘Life is too short to take unhealthy pills’. NPS were marketed as collectibles not intended for human consumption. They were described as legal in the European Union, controlled, regulated and safe. They were also marketed as the so-called ‘party drugs’. The shops also stocked herbal concoctions, known for centuries in various cultures and used for a number of purposes including rituals e.g. Salvia divinorum. It came as a big surprise to NPS users that herbal concoctions contained synthetic cannabinoids, which were to a large extent, if not wholly, responsible for the psychoactive effects thereof. In mid-2008, following the opening of the first high street smart shop, trade in NPS entered the reality offline. As soon as by the end of 2008, 40 high street smart shops were operational in the centres of major Polish cities offering an increasingly wide range of psychoactive products. While describing the beginnings of the legal highs scene it is worth mentioning a first synthetic cannabinoid called JWH-180, which was identified in Poland by the Central Forensic Laboratory in February 2009. This substance gave rise to a massive supply of such-like substances on the Polish market. At the same time, other new psychoactive substances and products were arriving rapidly including synthetic cannabinoids, mephedrone and later on a whole range of cathinone-type substances. Businessmen who established the biggest legal highs retail chains promoted the trade on a franchise basis, which meant that anybody ready to invest PLN 20-30 thousand could open a smart shop under the dopalacze.com chain. The spokesperson for the chain was getting in touch with local media to share the information of new smart shops being opened and this way generating publicity for the new legal highs retail outlets. New smart shops started springing up exponentially and soon, by the end of 2010, 1 300 smart shops were up and running across the country. The sale was conducted through both online and offline distribution channels with two arguably largest smart shop chains, i.e. ‘dopalacze.com’ and ‘smartshop’, being the main competitors. Surprisingly, the media hailed owner of the latter as the “King of Legal Highs”. Dopalacze.com in an official statement dissociated itself from
the practices followed by its competitor, which involved importing substances and then packaging them on the spot. Initially, dopalacze.com not only often provided information on the contents of its products but also used its website to pride itself on holding a certificate issued by a scientific laboratory, which stated that it did not market controlled substances. Following the first batch of substances being declared illegal, the names of products were changed in order to obstruct the process of controlling more substances. After the closure of high street smart shops, NPS kept being sold online. In April 2011, the Criminal Department of the Police Headquarters reported having identified 43 online smart shops offering substitute substances and an increasingly wide range of products of psychoactive nature.

Prevalence among young people

Poland, as virtually the first EU Member State, systemically addressed the issue of NPS, as evidenced by immense importance attached to covering the phenomenon with active monitoring and research. In 2008, the National Bureau for Drug Prevention (KBPN) commissioned the Public Opinion Research Centre (CBOS) to conduct a survey among young people aged 18-19 entitled “Youth”. In the course of this nationwide project, young people, for the first time in Poland and probably in Europe, were surveyed about NPS. There was a follow-up in 2010 and another one in 2013 enabling researchers to analyse the trends in using new psychoactive substances at the key moments, namely: the launch of smart shops (2008), largest sales network (2010), three years following the clampdown on smart shops. Before we present the results concerning NPS let us look at the prevalence of other drugs. The most prevalent substance used by secondary school students was cannabis. Lifetime prevalence rates in 2013 stood at 40%, which makes an increase of 4 percentage points compared with the year 2010. The last measurement results show a continuation of an upward trend also in the case of the last 30 days and 12 months prevalence rates. In 2013, during the last 12 months prior to measurement, every fourth student (23%; in 2010 the figure stood at 18%) had used cannabis. In the last 30 days it was almost every tenth student (9%, 8% in 2010). The use of hypnotics and sedatives without doctor’s order is currently reported by every fifth student (20%, same as in 2010), every tenth in the last 12 months (11%, 10% in 2010) and every twentieth student in the last 30 days (5%, 4% in 2010). Cannabis is followed by amphetamine as the second most prevalent illicit substance. In 2008, 9% of students reported experimenting with this drug while in 2010 and 2013 it was 7%. In the last 12 months prior to measurement, amphetamine was used by 4% of students in 2008 and 3% both in 2010 and 2013. The last 30 days prevalence rates for amphetamine use stood at 1% in 2008 and 2% in 2010 and 2013. The students were also asked about using NPS.
According to the 2008 reports, such-like substances had ever been used by 4% while in 2008 this rate stood at 11%. In 2010, the last 12 months prevalence rates for new psychoactive substances reached 7% (3% in 2008). In the last 30 days, 1% of students had used legal highs (2% in 2008). The 2013 measurement results indicate a drop in the prevalence of NPS. Lifetime prevalence rates were half as low as in 2010 (5%) and three times as few students had used legal highs in the last 12 months (drop from 7% to 2%). The rates for the last 30 days stood at 1%. The 2013 measurement shows that the closure of the smart shops had an impact on the consumption rates. Let us take a look at the prevalence of legal highs by sex. Such substances were mainly used by boys (Table 1). Though 2.8% of girls had experimented with NPS in the last 12 months, the rates for the last 30 days were not recorded.

<table>
<thead>
<tr>
<th></th>
<th>Boys</th>
<th>Girls</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lifetime</td>
<td>8.1%</td>
<td>2.8%</td>
<td>5.2%</td>
</tr>
<tr>
<td>Last 12 months</td>
<td>3.9%</td>
<td>0.4%</td>
<td>2%</td>
</tr>
<tr>
<td>Last 30 days</td>
<td>2.3%</td>
<td>0.0%</td>
<td>1%</td>
</tr>
</tbody>
</table>

Source: CBOS Foundation and KBPN

According to the 2013 survey, the availability of NPS fell as well. In 2010, every third respondent reported easy access to NPS, while in 2013 it was every fifth. Moreover, there was a 6 point increase in the percentage of those individuals who considered getting hold of NPS impossible (25%) or difficult (28%). At the same time, i.e. between 2010 and 2013, the availability of cannabis did not change according to the respondents. In the 2010 survey, students were asked additional questions about NPS in order to estimate the scale of the new phenomenon on the illicit drug market. The first thing was to explore the familiarity of the term. In 2013, 80% of the respondents had heard of new psychoactive substances (90% in 2010) and every eighth (12%) had visited a smart shop (27% in 2010). Out of those who had visited smart shops, 40% made a purchase (same rate as in 2010). The object of the measurement was also to find out what types of NPS were purchased by students. Out of those who made a purchase, 65% bought herbal concoctions, 13% pills or tablets and 23% powders. It must be stressed that some students who reported having purchased NPS failed to give the name of the type or name of the product. NPS are also sold online and 1% of the respondents had purchased NPS this way in both measurements (2010 and 2013). The results of the survey show that following the closure of high street smart shops, buying online became more popular.
Figure 1. Lifetime prevalence of drug use (age 18-19) (%)

Source: CBOS Foundation & KBPN

Figure 2. Last 12 months prevalence of drug use (age 18-19) (%)

Source: CBOS Foundation & KBPN
Another youth survey that covered new psychoactive substance is ESPAD (European School Survey Project on Alcohol and Other Drugs). In 2011, the National Bureau for Drug Prevention in collaboration with the State Agency for Preventing Alcohol-related Problems commissioned a national auditorium survey on alcohol and drugs use among school-age adolescents (Sierosławski 2011).

According to this survey, the most prevalent illicit drug among Polish youth is cannabis. 24.3% of the students in the younger age group and 37.3% of older students reported using cannabis in a lifetime. In both cases, it constitutes a dramatic increase compared with the 2007 ESPAD survey, where lifetime prevalence rates for cannabis stood at 16% among younger teenagers and 27.9% among older ones.

A similar situation occurred as regards the last 12 months (recent use) and last 30 days (current use) prevalence. Recent cannabis use rates stood at 20.1% among younger students (third graders at middle school) and 28.5% among second graders at secondary schools. In the 2007 measurement, the rates stood at 10.9% and 17.4% respectively. As for the recent use of cannabis in 2011, the rates reached 10.5% among younger students and 15.5% in the older group. In 2007, these rates were 6.4% and 9.5% respectively. As for illicit drugs, the second most prevalent substance is amphetamine. Lifetime prevalence rates for this most popular stimulant in Poland stood at 4.6% among 15-16-year-olds and 8.3% of 17-18-year-olds. However, no major discrepancies between the measurements of 2007 and 2011 concerning the prevalence of stimulants and other types of substances were recorded. NPS questions were first asked in 2011. NPS prevalence rates stood at 15.8% among the older students and 10.5% among the younger ones. Recent use rates reached 9% and 7.1% respectively while current use rates stood at 2.2% and 2.5%.
NPS prevalence seems to vary strongly in terms of sex of the respondents, which is particularly clear in the case of students aged 17-18. In all the three categories of prevalence, i.e. lifetime, last 12 months and last 30 days, boys seem to prevail. The widest lifetime prevalence discrepancy in terms of sex of the respondents can be observed among 2nd graders of secondary schools. Boys used NPS over twice as often as girls (21.5% vs. 9.9%).

The older boys used NPS more frequently than the younger ones; however, the difference was significant only in the case of lifetime prevalence. The percentages of girls using NPS in the younger and older age group differed only slightly.

The ESPAD results showed that the highest prevalence rates for NPS use among school-age adolescents are observed among boys from the older age group. Only in the case of the last 30 days were the NPS prevalence rates slightly higher among the younger boys (3.5% vs. 2.9% for the older boys).

Relatively low rates for the last 30 days NPS prevalence rates for both girls and boys might indicate that young people use such drugs on an experimental rather than regular basis.

### NPS prevalence in general population

NPS prevalence rates in the general population are not high. In the 2012 survey conducted by the CBOS Foundation among Poles aged 15-64, 1.4% of the respondents reported using NPOS in a lifetime (Malczewski, Misiurek 2013). In mid-2013, a quantitative survey on a representative sample of the Polish population aged over 15 was conducted with the field part

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Table 2. Prevalence of NPS by sex. ESPAD (%)

<table>
<thead>
<tr>
<th>Grade</th>
<th>Boys</th>
<th>Girls</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>3rd graders at middle schools</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lifetime</td>
<td>13,2</td>
<td>8,0</td>
<td>10,5</td>
</tr>
<tr>
<td>Last 12 months prior to survey</td>
<td>9,0</td>
<td>5,4</td>
<td>7,1</td>
</tr>
<tr>
<td>Last 30 days prior to survey</td>
<td>3,5</td>
<td>1,6</td>
<td>2,5</td>
</tr>
<tr>
<td>2nd graders at secondary schools</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lifetime</td>
<td>21,5</td>
<td>9,9</td>
<td>15,8</td>
</tr>
<tr>
<td>Last 12 months prior to survey</td>
<td>11,6</td>
<td>6,2</td>
<td>9,0</td>
</tr>
<tr>
<td>Last 30 days prior to survey</td>
<td>2,9</td>
<td>1,5</td>
<td>2,2</td>
</tr>
</tbody>
</table>

*Source: IPiN.*
carried out by the TNS Polska opinion poll company while the questionnaire was developed by the Polish Focal Point. The survey was implemented by means of the CAPI method under the OMNIBUS project through face-to-face interviews at respondents’ homes. The survey results show low prevalence of NPS use in Poland. Lifetime prevalence rates stood at 2%, with slightly higher figures recorded among men (3%) than women (2%). New psychoactive substances were reported to have been used by almost every twelfth respondent in the age group 20-24 (8%). It was the highest rate among all the age groups. The rate recorded among respondents aged 15-29 (4%) was half as low. In the remaining age cohorts, the rates ranged from 3% (25-34) to 0% (55-64). 1% of the respondents had used new psychoactive substances in the last 12 months. The same figure is observed for the last 30 days, which proves a low level of current use. The last 30 days prevalence rates among 15-34-year-olds stood at 1.7%. The analysis of place of residence among lifetime NPS users reveals the highest rates among residents of cities with population of up to 100 thousand (3%) and the lowest rates in cities with population of over 500 thousand (1%). If we look at the education of NPS users we will see that the highest rate was observed among university graduates (3%) and the lowest one among individuals with primary education (1%) (Malczewski, Misiurek 2014).

**Study in Europe**

The European Union conducted general population surveys on new psychoactive substances among Member States. The studies confirmed that new psychoactive substances pose a serious danger, albeit with substantial variations across Member States. In the Eurobarometer survey of 2011, the highest prevalence of NPS among 15-24-year-olds was recorded in Ireland (16%), Poland (9%), Latvia (9%) and the United Kingdom (8%). The European average stood at 5%. The measurement was repeated in 2014 which revealed a rise in the prevalence of NPS to the level of 8%. It is worth noting that the situation in Poland remained steady (9% in 2011 and 8% in 2013) while in half of the European countries, NPS prevalence rates users increased.
Response to new psychoactive substances

Active monitoring of the NPS scene at a national level should be the cornerstone of all actions. It requires constant cooperation with the European Monitoring Centre for Drugs and Drug Addiction in Lisbon and the other EU Member States. An interdisciplinary and scientific assessment of the phenomenon is a crucial component of the operation of a specialist EMCDDA system i.e. the European Early Warning System on new psychoactive substances, which is intended to identify new psychoactive substances arriving at the European drug scene, share information, assess the risk and develop recommendations for possible
legal control at European level for the Council of the European Union. The system partners are National Focal Points located in EU Member States. In Poland, it is the Information Centre for Drugs and Drug Addiction (CINN) of the National Bureau for Drug Prevention (KBPN).

New psychoactive substances made a number of professional communities, state agencies and public institutions take initiatives to fight NPS and reduce the risks and harm caused by NPS in public health and social security sectors.

Contrary to the opinions promoted by NPS dealers and some circles, including some media, the assessment of drug experts and researchers was quick to confirm that every psychoactive substance, under certain circumstances (considering the content, dose, properties of active agent, frequency of use, bio-mental user traits, social and environmental factors, etc.), might pose danger to anybody, even an occasional or accidental user. Contrary to popular reports, the chemical composition of new psychoactive substances remained unknown and they often contained and still contain new and/or untested substances with effects on human body that have never been the subject of scientific analyses. Also the effects of NPS taken in combination with other psychoactive substances, whether legal (alcohol, pharmaceuticals) or illegal, have never been tested although early experience led to conclusions that such practices might bring about negative and dangerous health consequences.

Laboratory tests of various NPS samples revealed another dangerous property. It became obvious that most products were composed of two, three or more various substances. Even if some individual substances were identified, little was known of their effects (both acute and chronic). Worse still, in the case of concoctions thereof, the knowledge was poor or none. This phenomenon is clearly corroborated by tests of NPS samples conducted by the National Medicines Institute (NIL). The tests showed that a low number of collectibles introduced to trade contained a single psychoactive agent (17% of samples tested). The results of NIL lab analyses showed that 5% of the products sold at smart shops contained illegal substances (n=3749).

Despite some NPS actually having relatively weak psychoactive effects, there were more and more reports of their adverse side effects (vomiting, headaches, tremors, panic or anxiety attacks). The number of NPS-related admissions to toxicological wards and other health care units manifested as serious somatic (also life-threatening) and mental disorders started rising.

All these facts collected together pointed to the necessity of taking coordinated and comprehensive actions aimed at limiting the impact of NPS on public health. The activities aimed at limiting or removing NPS-related threats were fourfold:

- legislative changes that would enable control of trade in new psychoactive substances,
- prevention addressed to e.g. 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.

Law

The first battery of actions resulted in controlling over 40 new substances under three consecutive amendments of the Act on counteracting drug addiction. The amended Act of 20 March 2009 on counteracting drug addiction [Dz.U. ‘Journal of Laws’ of 2009 No. 63 item 520], which came into force on 8 May 2009 introduced control over two new substances (BZP, JWH-18) as well as 15 plants, most frequent constituents of new psychoactive substances: ARGYREIA NERVOSA, BANISTERIOPSIS CAAPI, CALEA ZACATECHICHI, CATHA EDULIS, ECHINOPSIS PACHANNOI, KAVA KAVA, LEONOTIS LEONURUS, MIMOSA TENUIFLORA, MITRAGYNA SPECIOSA, NYMPHEA CAERULEA, PEGANUM HARMALA, RIVEA CORYMBOSA, SALVIA DIVINORUM, TABERNANTHE IBOGA, TRICHOCEREOUS PERUVIANUS.


On 4 March 2011, the Polish parliament adopted another amendment of the Act on counteracting drug addiction, which controlled 23 new agents discovered in new psychoactive substances.

At present, the work is underway to pass another amendment of the Act. Consequently, 114 more new psychoactive substances will be controlled in 2015.

Listing new psychoactive substances is necessary, yet it is a passive and reactive way of responding to new threats.

A different type of modification was introduced by the Amendment of 8 October 2010 of the Act on counteracting drug addiction and Act on State Sanitary Inspection [Dz.U. ‘Journal of Laws’ of 2010 No. 213 item 1396]. The Amendment came into force on 27 November 2010 and introduced to the Polish legal system new and more active formula and elements of state response to the problem of new substances. First of all, it introduced a definition of NPS as a substitute drug. Such a drug is to be understood as “a substance of natural or synthetic origin in any physical state or a product, plant, mushroom or any part thereof containing such...
a substance, used instead of a narcotic drug or a psychotropic substance, or for the same purposes as a narcotic drug or a psychotropic substance, whose manufacture and placing on the market is not governed by separate regulations; regulations on the general safety of products do not apply to substitute drugs.”

The Act also bans “advertising and promotion of foods or other products by suggesting that they have effects of psychotropic substances or narcotic drugs or their consumption, even against the intended use, or that they may cause effects similar to the use of psychotropic substances or narcotic drugs.” Violating the abovementioned law is subject to a financial penalty, limitation of liberty or deprivation of liberty of up to a year.

In order to halt the further development of the supply of substitute drugs onto the Polish market, legislators focused on banning the manufacture of substitute drugs and their introduction to trade. Whoever engages in the abovementioned activity shall be subject to a financial penalty between PLN 20 000 and PLN 1 000 000.

At the same time, the enforcement of the regulations was vested in the State Sanitary Inspection. According to the amended law, in the event of a reasonable suspicion that a product poses a threat to human health or life the State Sanitary Inspection has the right to withdraw the product from the market for the period necessary to conduct an assessment and research into its safety. This, however, can take not longer than 18 months. The costs necessary to conduct the assessment and research are borne by the entity introducing the product to trade. In the event of ascertaining that the product does not pose a threat to human health or life, the costs are to be reimbursed by the State Treasury.

It is worth noting that the new law clearly targets individuals and entities introducing new psychoactive substances to trade and not the consumers, who are treated more as victims of such practices. This seems to have been a forerunner of more changes in the Polish law that were to follow. Consequently, the general approach to Polish substance users was changed in our legislation including law enforcement, in accordance with suggestions of separating the world of users from the world of criminals.

Legal response and enforcing the law are indispensible in the fight against new phenomena on the drug scene. Still, over the recent years the so-called new substances have been arriving in such huge amounts and at such great speed, both in the European Union and selected Member States (particularly Poland), that it is necessary to invest in other interventions. That 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 (addressed to general population) and selective level (interventions aimed at those parts of the general population especially vulnerable to the new threats).
Prevention

In Poland, the first preventive activities combined with a widespread public education programme in the field of new psychoactive substances were implemented by the National Bureau for Drug Prevention (KBPN) under the awareness and prevention action entitled “Afterburners (literal translation of NPS from Polish) can burn you out. Face the facts”. The mainly online campaign conducted through www.dopalaczeinfo.pl was addressed to young people aged 15-25 i.e. potential smart shop customers. The campaign was intended to dispel the myths spread by NPS distributors (e.g. harmless effects) and instead provide reliable data on the risk of using new psychoactive substances and their real legal status.

Another KBPN awareness campaign called “afterburners-outburners” was addressed to parents and educational communities. The campaign featured a scenario for parental meetings and a leaflet. The scenario along with widely distributed leaflets enabled school and education professionals to conduct meetings with young people’s parents or legal guardians. The campaign materials were also available at the KBPN website (www.kbpn.gov.pl).

An important element of structural approach to reduce the prevalence of NPS use was a universal drug prevention programme commissioned by the National Bureau for Drug prevention and developed by Krzysztof Wojcieszek, PhD. It drew on activating methods and addressed school-age adolescents aged 15-18.

The aim of the programme was to provide young people with basic facts on NPS and the related threats. The programme was also intended to make the target population more careful and less open to such products.

The short preventive intervention method applied in the programme makes it possible to use in a creative way the cognitive dissonance of the participants related to the newly-gained knowledge and assessment of their own risky behaviours.

There were also NPS prevention activities implemented by institutions other than the KBPN. The Ministry of National Education launched a coordinated action of developing materials on NPS prevention among school youth dedicated to heads of schools and other educational centres. In recent years, a host of prevention materials have been developed by the National Bureau for Drug Prevention. Most of these materials have been published and are available at the KBPN website:

1. Universal prevention programme „Taste of life – NPS debate” is based on activating methods and targets
adolescents aged 15-18. Available at http://www.kbpn.gov.pl/portal?id=15&res_id=1244472. It offers prevention classes to be conducted by school counsellors, prevention professionals, experienced teachers, educators or youth leaders.


3. Scenario for a 2-lesson parental meeting on NPS to be held at schools and used by counsellors or form teachers. The aim of the meeting is to sensitize parents to the threats related to NPS. Available at http://www.kbpn.gov.pl/portal?id=15&res_id=879950.


NPS supply reduction

The State Sanitary Inspection activities included organizing NPS-related trainings, launching the NPS-dedicated helpline, as well as developing and distributing awareness and educational materials on substitute drugs.

However, the crucial activity of the General Sanitary Inspector was the direct operation against high street smart shops, which finally led to the closure or liquidation thereof. The crackdown on smart shops was necessitated by the growing number of NPS-related hospitalizations as well as media reports of several acute poisonings or even deaths caused by new psychoactive substances. As of 3 October 2010, officers of the State Sanitary Inspection accompanied by police officers closed down all smart shops and NPS wholesale businesses (total of over 1300). Articles 27.1 and 31a of the Act of 14 March 1985 on state sanitary inspection provided legal grounds for the operation. The articles provided that in 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 of a food product, product of use or other product that might have impact on human health, engagement or stopping of other activities; decisions in this respect are subject to immediate enforcement.

A direct consequence of the operation was the elimination of high street smart shops followed by a rapid decrease in reports of NPS-related poisonings and admissions to health care centres. As a result of police and state sanitary inspection activities, 12 000 NPS samples were seized, the majority of which were subsequently lab tested.

**Developments abroad**

An important element of the Polish government’s response to the NPS-related threats were international operations. Poland both in the course of preparations for the assumption of the Presidency of the Council of the European Union as well as during the Presidency itself attached particular importance to the widely understood health policy, including public health and the issues of NPS use and abuse. The trade in such substances, which originally flourished online, very quickly moved offline and the number of high street smart shops across the country exceeded 1300. Soon there was a dramatic increase in the number of hospitalizations due to the complications following the consumption of substances marketed as legal and safe alternatives to drugs, offered as collectibles not intended for human consumption.

Standard procedures implemented at EU or national level in response to NPS proved insufficient in relation to the level of threat observed in Poland but also several other European countries. At the same time, the assessments of the NPS problem across the EU varied significantly. In some countries the problem was noticed with substantial delay and in others it failed to receive necessary attention and response on the part of drug enforcement individuals and institutions. In Poland, decisive actions were taken to fight NPS. Following the decision of the General Sanitary Inspector and the police crackdown operation, all smart shops were closed down. As a result, in 2011 and 2012, there was a significant fall in the number of NPS-related poisonings and the legislative changes adopted by the authorities precluded trade in such substances and products. However, in the course of globalization, open borders and free movement of individuals and goods (e.g. in the EU), no country is capable of solving all the domestic NPS-related problems by herself. That is why, upon the initiative of the Polish government, the NPS issues were moved onto the EU forum and a process of in-depth analysis of both the very phenomenon and forms of subsequent response was initiated. Poland considered research into NPS and implementation of effective tools and methods one of the priorities
of her Presidency. For these reasons, representatives of our country actively supported the evaluation process of the Council Decision 2005/387/JHA of 10 May 2005 on the information exchange, risk assessment and control of new psychoactive substances, which was initiated by European Commission. During the Presidency, Polish representatives also succeeded in adopting and commencing the implementation of a European Pact against synthetic drugs. Works on drafting the Pact began in April 2011 with the involvement of interested Member States, European Commission, General Secretariat of the Council and Europol.

Chapter 3 of the Pact is devoted to new psychoactive substances and defines joint EU approach to this problem as a response to the phenomenon of using new distribution channels of the so-called “new synthetic drugs – designer drugs”.

The EU activities under the Pact for the coming years cover the following:
- illegal manufacture of synthetic drugs,
- trafficking in synthetic drugs,
- new synthetic drugs,
- training courses on dismantling clandestine new synthetic drug labs.

Moreover, during the Polish Presidency of the Council of the European Union the NPS-related issues were discussed at the forum of the Horizontal Working Party on Drugs and to a limited extent at the COSI (Committee on Internal Security) level.

While reviewing the response to new psychoactive substances, one must take into account legal systems which vary across European countries and provide framework for the actions taken as well as defined the speed of response to the new phenomenon. The Polish legal system, according to which new substances are listed in the schedule to the Act, is based on individual law.

It is worth noting that Polish NPS response mechanisms e.g. temporary withdrawal of a given product from the market, are regarded by other Member States as promising tools of fighting this threat. Similar solutions have been introduced in Romania, which also faced a serious challenge by new psychoactive substances.

The Polish experience of preventing NPS was presented in a number of EU Member States during conferences and expert meetings e.g. in Amsterdam, Lisbon, London, Brussels, Frankfurt, Rome, Budapest as well as outside the EU: Palm Springs, Skopje, Tbilisi.

Under international cooperation, the Polish REITOX Focal Point1 along with the Hungarian Focal Point and European Centre for Monitoring Drugs and Drug Addiction (EMCDDA) organized an international conference on

1Reitox Focal Points constitute a network of national drug observatories cooperating with the EMCDDA. Visit http://www.emcdda.europa.eu/about/partners/reitox-network
new psychoactive substances entitled “Reitox Academy on New Psychoactive Substances”. The meeting took place in Warsaw at the beginning of September and was a follow-up to the first Budapest expert conference of 2012. The September conference was attended by experts from over 20 countries, mainly the European Union but also Norway, Macedonia, Serbia and Georgia. Over the course of 2 days, representatives of more than 10 countries delivered 25 presentations on various aspects of the NPS phenomenon, including prevention. Poland is currently a partner to the international European Commission-financed “I-Trend” project involving France (project leader), the Netherlands, the United Kingdom and the Czech Republic. The project is aimed at developing tools for online research into new psychoactive substances by means of quantitative and qualitative methods. Poland is represented by the University of Social Sciences and Humanities, which is responsible for the quantitative component (online survey). The survey was also intended to determine the most prevalent NPS (the so-called TOP 10) and develop folders with useful information for drug prevention and treatment practitioners. In 2013, the TOP 10, created on the basis of laboratory test data, listed the following substances: 3,4-DMMC; 3-MMC; AM-2201; Brephedrone; Ethcathinone; MDPBP; Pentedrone; alfaPVP; UR-144; pMPPP.

New European legislation

Work is currently underway on the new European legislation on new psychoactive substances. Last year, the European Commission presented draft package of regulations which are meant to facilitate fight against new psychoactive substances. Under the Commission-proposed legislation, dangerous psychoactive substances will be promptly withdrawn from the market without prejudice to their legal industrial and commercial application. According to the European Commission, Europe must act effectively and decisively. The existing system of detecting and banning new psychoactive substances, which was established in 2005, fails to meet the challenges of the rapidly changing drug scene. At present, it takes at least two years to control a substance in the EU. In the future, the EU will be capable of introducing such a ban in a mere 10 months. In exceptional cases, the procedure will be even shorter as it will be possible to withdraw a substance from the market with immediate effect for a period of up to one year. Pursuant to this regulation, a substance will be no longer available for consumers and during that time, a full risk assessment will be conducted and a final decision taken. The existing system does not allow for temporary measures to be applied and the Commission must wait for a full risk assessment report before submitting a motion concerning the substance limitations. The new system will allow a step-by-step approach. Consequently, substances posing moderate threat will be covered with consumer market limitations while
the serious threat substances will receive full market limitations. Only the most harmful substances which pose serious risk to consumer health will be subject to criminal law just like illicit drugs, which means they will be delegalized in Europe. The new motion must be approved by the European Parliament and the Member States of the Council of the European Union in order to become a binding law.

NPS market in 2014

A number of institutions actively fight new psychoactive substances, particularly the Customs Service, Border Guard and the police. The police seize new psychoactive substances which are not controlled by the drug law. In 2013, the following substances were seized: mephedrone (2939 grams), Salvia Divinorum (1 gram), 4 MEC (9558 grams), MDPV (620 grams), synthetic cannabinoid (110 grams). The Customs Service seize shipments mainly at the border. In mid-2013, one of the Customs Offices revealed a 60-kilogram shipment of a new psychoactive substance named pentedron, which had been declared as an ingredient used in the production of concrete. The introduction of new control mechanisms made NPS distributors and sellers change their tactics.

Table 3. Operations of the State Sanitary Inspectorate in the field of substitute drugs in 2011-2014

<table>
<thead>
<tr>
<th>Year</th>
<th>Total of inspections</th>
<th>Total of entities found to be introducing substitute drugs to trade</th>
<th>Total of samples taken for lab tests</th>
<th>Total of products seized</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>335</td>
<td>0</td>
<td>11</td>
<td>35</td>
</tr>
<tr>
<td>2012</td>
<td>548</td>
<td>495 000</td>
<td>103</td>
<td>443</td>
</tr>
<tr>
<td>2013</td>
<td>779</td>
<td>10 669 370</td>
<td>134</td>
<td>1 448</td>
</tr>
<tr>
<td>2014 6 months</td>
<td>333</td>
<td>7 790 100</td>
<td>128</td>
<td>728</td>
</tr>
</tbody>
</table>

Source: Białas 2014, GIS

At present, smart shops avoid advertising, which was the case in years 2008-2010. Retail outlets hide NPS among other products and do not place NPS advertising banners as they did in 2010. In 2014, there were 100 smart shops operational in Poland. The shops are being inspected and closed down by the Sanitary Inspection. However, some owners reopen them under
different business names. The activity of the Sanitary Inspection has been presented in Table 3. In 2014, the Sanitary Inspection imposed PLN 7 million worth of fines on smart shops owners. However, fines are hard to collect as the businesses often wind down once the Sanitary Inspection begins to look into their activities. In Poland, apart from high street smart shops there are over a dozen online stores where new psychoactive substances can be purchased. The order is usually shipped within 2-3 days with a cash-on-delivery option. Online stores are registered abroad e.g. www.kolekcjoner.nl.

New challenges

The latest data on poisonings indicate an increase in the number of medical interventions, which might have been related to NPS use (Figure 5). The figure shows data recorded by the end of 2013. According to the latest information from the National Clinical Toxicology Consultant, over 1 100 such cases were recorded in Poland by the end of July 2014. Data presented in the first part of this publication shows a fall in NPS prevalence among youth. However, NPS have started to be used in a more risky way i.e. through injecting, which increasingly leads to poisonings. In 2013 and 2014 (by October), there were 6 NPS-related deaths recorded. Surveys of needle and syringe exchange programmes indicate that 12% of the programme clients use mephedrone and 15% NPS (Malczewski 2013a). The vast majority of individuals who reported using mephedrone injected it in 2012 (90%). In 2010, this percentage was far lower and stood at 40%. In 2013, high street smart shops started reopening. However, the numbers here are nowhere near those of 2010. Online shops are still the main source of supplying NPS.

Figure 5. NPS-related poisonings

Source: Piotr Burda, MD, PhD, National Clinical Toxicology Consultant, Centre for Poisonings Control, Warsaw
Summary

The actions taken in Poland to halt the rise of new psychoactive substances were manifold (multiple legal changes, extending the list of controlled substances, prevention, education, supervision and direct operations against smart shops, raising the subject matter on the European forum). The actions were clearly successful e.g. a fall in the number of life-threatening NPS-related incidents. However, it is not the ultimate triumph over new psychoactive substances in Poland. According to the principle that every action is accompanied by a reaction, a decrease in the availability of NPS in smart shops gave rise to a greater online supply, transferring the trade to the neighbouring countries (Czech Republic) or the arrival of more alternatives to controlled substances. It also must be noted that despite the closure of smart shops, some NPS complemented the group of traditional drugs available on the illegal market e.g. mephedrone, which is injected by opioid users, including substitution treatment patients.

It also must be stressed that the new anti-NPS solutions target producers and distributors, not users. Possession of substitute drugs, as NPS have been legally defined, is not a punishable offence. An administrative penalty might be imposed on individuals who introduce NPS to trade. A new institution which handles all substitute drugs is sanitary inspection. It is responsible for inspecting entities suspected of trade in substitute drugs and withdrawing suspected substances from the market in order to test their potential harmfulness.

The problem of NPS is an important one. Still, it must be analysed as a link in the chain of multiple challenges faced by society and its specialist institutions responsible for the Polish drug policy. The existing drug scene is undergoing continuous changes in terms of both quantity and quality. The changing substance use patterns are accompanied by a whole range of phenomena related both to the drug supply reduction, including online sale or innovative trafficking methods as well as the drug demand reduction and reducing health harm caused by drugs and drug addiction. The latter issues feature most prominently the problem of drug driving or non-medical pharmaceutical drug use. The issue of new psychoactive substances is also influenced by changes in attitude of the general public regarding drugs and their position among other social problems. These come together with a change towards the users of certain substances and the substances themselves e.g. rising tolerance of drug use, especially of cannabis.

The problem of new psychoactive substances calls for constant activity on the part of the state and collaboration of many individuals and institutions. Knowledge of this rapidly developing phenomenon has been steadily improving, which helps to better understand its nature. However, it is still necessary to work out methods and mechanisms of monitoring.
the emergence of new substances that, while anchored in the Polish law, would be more effective.

What should be a sine qua non for an effective social dialogue and reaction of specialist institutions is a response to the phenomenon based on monitoring new psychoactive substances and carrying out research into the nature and consequences of the phenomenon. Such a response should be based neither on a system of myths and anecdotal evidence, nor opinions and beliefs not supported by scientific approach. Nor should it be formed under the pressure of the media. That is why it is expedient to adopt structural and organizational solutions, which will trigger the development of a system for monitoring medical incidents in Poland as well as the risk assessment system for new substances and products with psychoactive and harmful effects posing risk to the health and safety of Polish citizens that arrive on the Polish market.

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