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Boosters – a phenomenon and threats

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BOOSTERS – A PHENOMENON AND THREATS

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ABSTRACT

The article is an analysis of the issue of drugs consumption, in the historical context, and concentrates on the synthetic drugs production that lasts for the last decades. Authors mainly focus on the most present topic – the boosters: their impact on health (intoxication), distribution and production. They consider measures taken by authorities to fight this phenomenon, as well as show its partial efficiency due to changes in boosters production (flexible changes of consistence) and distribution (foreign platforms use).

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INTRODUCTION

In late spring 2015 for the second time in a decade, drug dealers and people hungry for unhampered profit made a massive booster attack. Its result is more than 3 000 poisonings, hundreds of hospital admissions, and most importantly, the high risk of complications as a result of complex reactions of these substances on the central and other human systems.

The phenomenon of boosters, which were first disclosed at the end of the last decade, surprises toxicologists, paramedics, prevention staff and psychiatrists, and the phenomenon and problems associated with it are the subject of numerous media discussions and publications. It seems that the two great fights with boosters do not close this problem, which can result in other attempts to introduce on the market very dangerous illegal psychoactive substances in the following months.

BOOSTERS – DRUGS OF ‘HIGHER QUALITY’

‘Classic’ drugs have been known in the scientific analysis for over 100 years but in ‘social’ practice among people for at least 10 000 years (the oldest ones are considered opium, cannabis and *Amanita muscaria* or toadstools). In the second half of the twentieth century they were systemized, which was reflected in the documents of the United Nations and national regulations. And it was the twentieth century which marked the phenomenon of different national approaches to drugs and visible distinction between restrictive and liberal policies (the most visible image of the latter was the decriminalization of marijuana in the Netherlands and permission to its sale in coffee shops). Collaterally, drug manufacturers market was being formed with a clear geographical-climatic character as well as organized drug-related crime appeared. There are two principles that became an important feature of drug market development:

- their cultivation, production takes place mainly in poor countries with low level of education and a very poor state power, low democratic traditions (e.g. Colombia, Bolivia, Somalia, Afghanistan, Albania) or in countries undergoing profound transformations (e.g. Azerbaijan, Kyrgyzstan, Tajikistan), where often there was a specific marriage of state power, the intelligence services and the criminal world,
- the highest levels of consumption is recorded in the countries of Latin culture, the rich ones (the biggest drug consumers are the United States and the countries of the European Union), democratic and economically developed.

The development of the global drug market began in the 30s of the twentieth century, although previously in the salons of artistic bohemia of France, the USA, the UK and Germany opium appeared; similarly the market of this drug was developed in China, and India was the area of mass supply of marijuana. It should be assumed that more dynamic consumption of drugs in the first half of the twentieth century was closely

related to two processes: the great economic disparities (not coincidentally the supply of drugs increased during the Great Depression of the 30s) and the development of organized crime. For the world's largest consumer of drugs – the United States – important were the consequences of the Vietnam War (the use of heroin by the soldiers as a result of dramatic stress of war) and the revolution of 'flower children' for whom marijuana and heroin were one of the symptoms of freedom.

Moving this trend to Europe in the 60s of the twentieth century began the formation of a new model of continental drug market where, beside the aforementioned substances, amphetamines, ecstasy, LSD and inhalants were introduced. Conducive to the development of the drug problem was not only the supply of substances but also the Dutch drug policy, de facto releasing the sale of marijuana. The first marks of drugs boom reached Poland in the 70s of the twentieth century, marking its specificity – much higher than in Western Europe popularity of volatile solvents and classic heroin substitute in the form of national makiwara (brew made from Polish poppy straw with low psychoactive substance indicant). The 80s brought the activation of the native criminal world which started to play an increasingly important role in European production of amphetamine. Joining the European Union, especially the validity of Schengen Agreement, led to a real revolution of drugs, since the opening of borders has enabled criminals to 'spread the wings'.

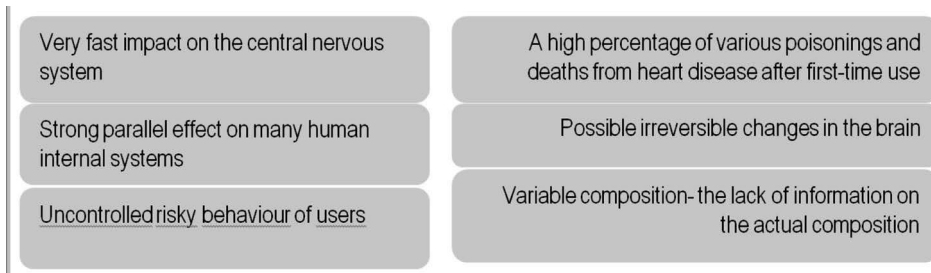
We make these observation not by accident as the etiology of the problem of boosters has obvious sources in the European changes, including the Polish drug market. Hence, at the beginning of the twenty-first century, toxicologists began to signal a completely new phenomenon:

- production of stronger substances and combining them with chemical 'fillers',
- the emergence of the broader supply of new plant and chemical substances (synthetic) with a strong psychoactive impact; (e.g. khat, methamphetamine),
- development the cocaine market and the growing role of Afghanistan in heroin production, which quickly became the no. 1 player in the supply of the drug, with the parallel development of synthetic marijuana market (much stronger psychoactive impact).

Against this background, in the first decade of the 21st century, Poland (particularly Lodz and the surrounding cities) became the area of the first booster attack. Let us add, a coordinated action, mass, conducted with so

far unknown great scale. Its result was a wide supply of new psychoactive and psychedelic substances. They had specific features, as shown in the first graphic.

GRAPHIC 1. SPECIFIC FEATURES OF BOOSTERS

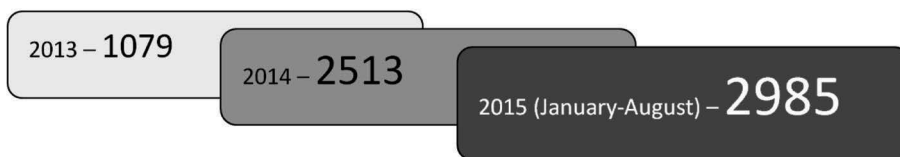


Source: own study

The occurrence of these substances on the market, supported by mass dissemination of the thesis that they are not prohibited by law, led to a rapid increase in sales. At the same time, the world of crime noted that it is a source of huge profit, which in turn led to the development of organized forms of import, production, distribution, as well as criminal ‘patronage’. As a result, as soon as at the end of the first decade of this century, a significant share in the supply of legal boosters belonged to criminal groups. In subsequent years, these influences further strengthened. We can assume that about 80 per cent of the current market of these substances are linked to organized drug crime.

A significant meaning to the enormous danger related to boosters have real consequences for their distribution and use. Although the year 2010 brought reports of tragic, including the fatal consequences of their use, three years was enough time for the collective unconscious to set in. This resulted in another booster boom, except that even more dangerous substances which are synthetic derivatives of THC and amphetamines, were introduced to the market. Some of them are 100 times more fashionable than classical tetrahydrocannabinol in cannabis. Countering this type of practices – as expanded further – brought significant revaluation in the operations of criminals. Immediately after putting on the list prohibited products, the underworld offered its modified form – often 2–3 days after the decisions outlawing the substance. Such situation quickly drew attention of researchers signaling state institutions fallacy of such an anti-drug and booster model.

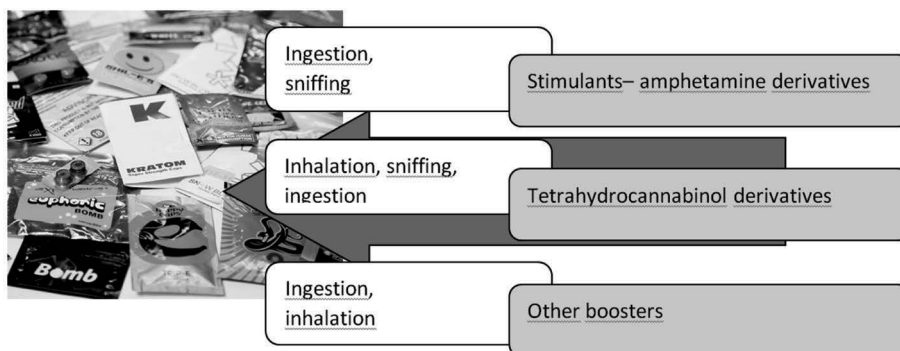
GRAPHIC 2. BOOSTER POISONINGS IN POLAND IN THE YEARS 2013–2015



Source: data of Chief Sanitary Inspectorate

Boosters alone (the official name ‘substitutes’) are not a homogenous group – they include fully synthetic substances, dried fruit or plant extracts, as well as mixtures. Toxicology practice quickly pointed out to the effects of taking highs: often faster – in comparison with of classical drugs – effects on the human CNS¹, which took place after 30–40 seconds since the absorption into the respiratory tract; numerous cases of irreversible brain damage and long-term stay of patients in intensive care units; variability of reactions (their broad spectrum²); diverse and variable composition³.

GRAPHIC 3. KEY WAYS OF TAKING BOOSTERS



Source: own study.

Image source: http://img.thesun.co.uk/aidemiltum/archive/02144/SNF3108A---MAIN_2144454a.jpg

¹ Most of the products defined conventionally as boosters show disrupting activity after 3–4 minutes after absorption into the body.

² Some substitutes are characterized by a succession of varying reactions – from laughter, the loss of body control, through aggression to momentary returns to psychophysical balance. Very often it comes to a complete loss of contact with the surrounding world, which makes it impossible to assess the risks.

³ For example, a substance with the same name may contain a different composition. An additional problem is the unreliability of the descriptions on packaging.

BOOSTERS – A PHENOMENON, SCALE, CONDITIONS

While in the years 2004–2006 Poland became the field of wide distribution of these substances, which resulted in the launch of more than 1 700 sale points and the rapid increase of patients in the toxicology wards (in total there were nearly 5 000 poisoning cases recorded), the ‘attack’ of 2015 was significantly stronger, based on the more thoughtful actions of criminals, with the extensive use of the Internet supply. Although the holiday period of 2015 succeeded in reducing the supply of legal highs, especially through the elimination of sale points⁴, the problem itself has not been solved⁵.

Let us remind here that already in the past decade for better coordination of problems related to counteracting boosters, these issues were placed in the Chief Sanitary Inspectorate and in District Sanitary and Epidemiological Stations. While the role of the DSES is justified entrusting CSI the coordination and leading role in this respect was and is in our opinion a mistake, and the effect of that decision was the low efficiency of the activities of a strategic, long- range nature⁶.

BOOSTERS – SEARCHING FOR EXPLANATIONS

It is not entirely clear what the key reason for the development of production and market of new drugs is, but it can be assumed that it is a derivative of three processes:

- increase in the effectiveness of security authorities to combat drug market (boosters often go beyond the means legally prohibited, having similar to drugs, and often bigger potency). The possibility to quickly avoid punishment or blurring liability has a significant impact on the growth of the supply of these substances,

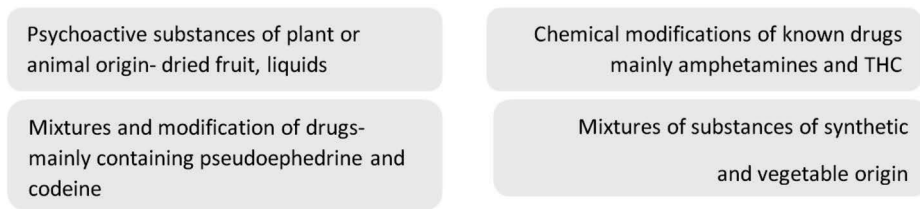
⁴ Very soon there appeared large distribution networks operated by people known so far for the drug trade, which would indicate a relationship of some distributors with organized crime.

⁵ Key points of sale placed in prime locations of large and medium-sized cities, often in quite prestigious places (Warsaw – Marszałkowska Street, Łódź – Piotrowska Street). After the administrative closure of these establishments the facilities in which they were placed remained in the hands of the same owners, and only the range of sales changed.

⁶ It is reasonable that the problem of boosters found its place in the national Bureau for Drug Prevention, which would be logical and would ensure greater efficiency. Thus, the current and flawed organizational model – easy to alter – lies at the basis of significant defeats of the Polish state in the fight with legal highs.

- tendency to produce new substances as derivative of supply model characteristic of the model ‘Style pack’ – there is a growing demand for various types of substances ‘supportive’ of contemporary entertainment and recovery from contemporary stress, especially in terms of profession,
- growing interest in psychoactive substances in the groups of teenagers and people prosperous materially, which is in turn derived from social dysfunction, disorganized educational system and expanding the idea of ‘liquid reality’.

GRAPHIC 4. BOOSTERS – NEW GENERATION OF PSYCHOACTIVE SUBSTANCES⁷



Substances known conventionally as boosters, until they are put on the list of drugs banned or controlled, they are often legal as multiple measures of psychoactive properties, both of natural origin plant, as well as synthetic or their blends⁸. What is characteristic of the production market is the search for plants growing massively in Poland or abroad, as the raw material base for the new psychedelics.

Let us also add that the process of ‘competition’ among offerors of these substances and legal institutions (security) is a kind of ‘race without end’, as the substance being outlawed is immediately replaced by the new one⁹. This is facilitated by the presence of naturally huge number of plants with psychoactive properties, the prohibition of which is unrealistic (e.g. deadly nightshade, cacti, mushrooms with psychoactive properties, datura) or officially used for food production, in industrial chemistry or pharmacy. Expanding the market of new dangerous substances favors the dynamic development of new methods for the production of synthetic substances. It allows, for example, to fast modify the composition of the substance in-

⁷ The fastest growing supply is the supply of amphetamines and THC.

⁸ Officially, according to the Law on the prevention of drug use, a term substitute is used.

⁹ That meant that administrative methods to combat boosters which is now preferred by the Polish state are not an effective way to stop the phenomenon.

cluded in the list of products prohibited¹⁰. It is this trend that has led to the beginning of production and broad supply of synthetic derivatives of THC.

A characteristic feature of booster market is its constant dynamics and volatility of products, which, among others, hinders its medical and toxicological diagnosis. Let us also note that the phenomenon of turnover and the use of legal highs was known already in the middle of the previous decade as a consequence of functioning in some countries of Europe and East Asia networks and online Fun-type shops, Smart shops selling so-called legal highs.

It is also worth to indicate another possible cause of booster attacks in Poland. Now, with the two 'booster attacks' supporters of marijuana were massively very active, using the following thesis – if boosters are so dangerous, legalize marijuana. Perhaps this may be the strategic objective.

There is no doubt that, despite the media warnings (it is the media not the state institution that are more active in the prevention of this problem), Polish consumers proved to be particularly susceptible to this kind of range of psychoactive substances, which is an interesting research problem for psychology and social prevention¹¹. This is reflected in the toxicological data and scientific publications on these issues, as well as at conferences. As researchers of the issue note, *boosters are becoming increasingly popular among young people, and the availability of the Internet and specialty shops favours their use*¹². On the other hand, Anna Krakowiak from the Institute of Occupational Medicine in Lodz indicates important diagnostic problems associated with the spread of boosters supply: *commercially available preparations are a mixture of different psychoactive substances of unknown a priori composition; their clinical poisoning picture is still poorly documented; we do not really know the effects of other known and present in the subject psychoactive substances (e.g. alcohol, amphetamine and its derivatives, cannabis) on the picture of boosters' poisoning*¹³. Let us add that only in Jan-

¹⁰ An example could be a modification of mephedrone in buphedrone, as well as development of amphetamine-like substances market.

¹¹ We do not have a multidimensional concept explaining the phenomenon of boosters market development and such a rapid increase in drug use by adolescents and young people in the last two decades.

¹² P. Biliński, P. Jabłoński M. Jędrzejko, *Narkotyki i dopalacze*, Oficyna Wydawnicza ASPRA-JR, Warszawa 2011, p. 43.

¹³ A. Krakowiak, *Wpływ dopalaczy i nowych narkotyków na zdrowie i zachowania człowieka – pierwsze doświadczenia medyczne*, Instytut Medycyny Pracy w Łodzi, ppt presentation, Łódź 2011.

uary–July 2015 in key public and commercial television stations the issue of boosters was discussed over 40 times – most often in relation to tragic cases of their use.

The phenomenon known as ‘rush to boost’ has also highlighted the weakness of the Polish prevention – the one addressed to the whole society and the school (it is reasonable to put a thesis that in the first period state institutions did not tackle this great educational, information and prophylactic challenge¹⁴, and the formal elimination of sale points did not lead to a long-term reduction of the problem but to ‘the redeployment’ of forces and means of groups trading in boosters. Of course, the causes of drug and booster use are not only related to their growing demand¹⁵. One can also assume that in the first few months of functioning, these shops introduced to the market from 0,5 to 1 million doses of drugs, using the existing loophole. Currently, the supply can range from 40 thousand to 100 thousand of servings per month (which is significantly higher during the summer and in the period before New Year’s Eve time)¹⁶ and is ahead of the state institutions activity.

Similar situation turned out to be with the activity of a significant part of Polish local governments, with the critical assessment being fully justified here, as for many months the necessary organizational and legal actions were not taken, leading to more and more apparent threat, e.g. schools were not provided with resources to implement wise, planned and at the same time offensive booster-drug prevention, focusing on responding to specific, often tragic cases. The result of such a model of prevention turned out to be a famous action with participation of the Prime Minister (2010), declaring war on boosters. Let us add, the offensive ended in the state fiasco¹⁷.

As it was already pointed out, the scale of the phenomenon showed the ineffectiveness of conducted in Poland preventive measures to counteract

¹⁴ Unfortunately, this is a feature of many other problems, e.g. pro-marijuana campaigns, e-cigarettes, e-gambling, mass promotion of beer, with the result of state institutions being still too late to respond to real threats.

¹⁵ See M. Makara-Sudzińska, *Uwarunkowania używania narkotyków przez młodzież a doświadczenia przemocy domowej*, [in:] *Uzależnienie od narkotyków*, A. Kurzeja (ed.), Difin, Warszawa 2012, p. 34–46.

¹⁶ The biggest breaking of boosters in July 2015 had a market value of about PLN 1,3 million.

¹⁷ During this period almost every day numerous cases of poisoning were reported, including deaths, which made the national authorities take further steps to limit the

this threat, and more broadly to the whole problem of drug addiction. Let us note, for example, that after late spring booster campaign organized by the world of crime (2015) as late as in September preventive actions in schools began. At the same time, they could have been carried out in the summer, for example, on camps, colonies. Current actions are nothing but another example of 'putting out the fire', because a key objective of prevention should be preparation of activities for April–June 2016 when another action of drug dealers and boosters will start.

From the above observations, we can deduce the following conclusions:

- boosters represent a new quality of drugs on the Polish market and are the substances of a very strong effect, they often pose a deadly threat after just one use,
- we cannot predict the far-reaching consequences of the impact of these substances on the CNS and other human systems; they are mostly multi-component substances, containing various components of natural and/or synthetic nature, with the addition of powerful chemicals,
- the same name of the substance does not guarantee the same chemical composition.

BOOSTERS IN THE LIGHT OF LAW

One of the key arguments of the authorities is to use the thesis that the problem of legal highs cannot be solved by the final regulations, therefore it is very difficult to control. Let us present at this point a significant example. One of the substances that busters consist, is benzylpiperazine (BZP). In 2007, the EMCDDA¹⁸ Scientific Committee, made an assessment of the risk of using psychoactive substances and submitted a report to the Council and the European Commission. The risk assessment concluded that due to the properties of stimulants, the occurrence of health hazards and the risk to health and the lack of therapeutic benefit, it is necessary to control BZP. In March 2008, the council adopted the decision defining BZP as a new psychoactive substance that must be subordinate to the rigour of control and criminal law. The Member States had one year to take the necessary steps in accordance with their national law to submit BZP to control measures proportionate to the risks associated with

availability of psychoactive substances. M. Safjański, J. Gołębiewski, *Zjawisko obrotu dopalaczami w Polsce*, „Kwartalnik Policyjny”, 2010, 4 (14), p. 4.

¹⁸ The European Monitoring Centre for Drugs and Drug Addiction based in Lisbon.

the substance, and to apply the penal sanctions as provided for in their legislation complying with their obligations under the UN Convention on psychotropic substances, 1971¹⁹. In spite of this, the supply of BZP did not decline.

The cited Council Decision and ineffectiveness of actions taken by authorities and public service, in relation to boosters distributors are reflected in amendment of the Act on counteracting drug addiction of 20 March 2009²⁰, with effect from 8 May, which resulted in annex of the Act including 18 new substances: 2 synthetic and 16 plants (and their extracts, essence, seeds and dried fruit). Benzylpiperazine (BZP) was included in the Annex no. 2 on the list of psychotropic substances of group II-P, the other substances, that is JWH 018 /1-pentyl-3-(1-naphtoyl)indoles/ and *Arygyreia Nervosa*, *Banisteriopsis Caapi*, *Calea Zacatechichi*, *Catha Edulis*, *Echinopsis Pachanoi*, *Kava Kava*, *Leontis Leonurus*, *Mimosa Tenuiflora*, *Mitragyna Speciosa*, *Nymphaea Caerulea*, *Perganum Harmala*, *Psychotria Viridis* /*Chacruna*/, *Rivea Corymbosa*, *Salvia Divinorum*, *Tabernanthe Iboga*, *Trichocereus Peruvianus* were placed in Annex no. 1 on the list of drugs of I-N group.

The introduced amendment brought rapid effect in the form of withdrawal from sale the aforementioned substances, however, it did not solve the problem of sales in shops other psychoactive substances, because on their place chemical modifications of these substances appeared, often faster and stronger. Over time, new substances had in their composition the same or very similar active substance (this is particularly true of products of plant origin)²¹.

Lack of efficacy in reducing the sale of legal highs and the emergence of new substances led to a new decision to prepare and introduce another amendment of the Polish Act on counteracting drug addiction of 10 June 2010²², in force since 25 August 2010. As a result of the amendment, in Annex No. 1 of the Act 'The list of drugs' Part 1 'Narcotic drugs of I-N group' the following substances were included: JWH-073, JWH-398, JWH-250, JWH-200, HU-210, CP-47, 497, all belonging to the group of synthetic cannabinoids.

¹⁹ EMCDDA, *Stan problemu narkotykowego w Europie, sprawozdanie roczne 2008*, p. 103.

²⁰ Dz.U., nr 63, poz. 520.

²¹ M. Safjański, „Dopalacze” – further changes in the annex to the Law on prevention of drug addiction, „Kwartalnik Prawno-Kryminalistyczny”, 2010, No. 3 (5), p. 87.

²² Dz.U. 2010, nr 143, poz. 962.

The presented operations solved the problem partially and for a short period, that is, they did lead to proscription of rotation in the substance, but in its place another substance with similar properties was introduced very fast. An important factor for the increase of legal highs supply was establishing numerous e-shops with boosters. Since the beginning of this decade, they have adopted a completely new formula of action:

- shops are placed on servers outside the European Union, which makes it difficult to close them,
- apart from selling substances, boosters portals provide detailed briefings of substance use, and often rules of conduct in the case of the Police 'raid'; 'impressions' of users are regularly published on them,
- part of e-shops went on to TOR network, which makes it virtually impossible to trace them.

CHARACTERISTICS OF SUPPLY SOURCES IN THE YEARS 2008–2015

The first important channel allowing the free supply of the boosters were foreign online shops, mainly located in the Benelux countries and the UK²³. They provided a place to procure larger quantities of these substances which were then traded on auction sites, classifieds, as well as through small domestic online shops. The growing demand for this type of substances in 2008/2009 resulted in the opening of online shops targeting the Polish consumer (e.g. local prices had been adjusted to it)²⁴.

Profits from e-commerce led to the development of the distribution network and the creation of a network of stationary shops²⁵ – they were supplied with an assortment imported through the main concern²⁶. Trouble-free import of highs and trading was assured by its qualification as a product intended for collectors, often with clear warnings like 'the product is not suitable for human consumption'. After 2012²⁷, one more important direction of imports was added – China.

²³ Some of them were placed on the islands between Great Britain and France.

²⁴ The most popular of this type of online shop operated at www.dopalacze.com. According to information contained on the website cited, its owner was a foreign trader with the base in Cyprus.

²⁵ Still open is the question of involvement in the dealings of organized criminal groups, both domestic and foreign.

²⁶ Most of the goods was a foreign range, adapted for distribution on the Polish market (e.g. the descriptions in Polish language).

²⁷ Which was supposed to protect sellers against office and private accusations in case of severe poisoning and death.

We should add at this point that consumers' interest in new psychoactive substances resulted in the development of domestic industry organized in the beginning hastily in many regions of the country, which resulted in several national networks involved in their distribution. Particularly active in this practice were groups with their own shops. This was accompanied by numerous advertising campaigns and clear marking of booster shops (they were even placed on the most well-known streets of big cities).

At the same time legal highs distributors took a number of measures touting their campaigns, especially on the Internet. The model they adopted led to increased interest in opening new shops – potential organizers were offered not only credit but also help in organizing stands and training. This caused the effect of 'snowball', first in Łódź and Masovian voivodships and then throughout the country. The first months of the functioning of shops with boosters were characterized by:

- increased interest in the use of these substances both, by the existing drug users and the first-time takers,
- fast introduction of new substances,
- the development of supply facilities for the storage and use of these substances (the pipes, cigarette holders, water pipes, heaters, burners, etc.).

Apart from the 'official' booster supply channels, the so-called black market of their production and distribution was developed. At this stage, the production and placing them on the market was dealt with by people who previously have had links to drug production and trading. An important source of supply of psychoactive substances at the beginning of the second decade of the twenty-first century, especially of plant origin, was having own crop. The seeds necessary for this purpose as well as advice and product range could be sold in online shops – allegedly being the platform for exchange information on natural ways of healing and using plants in the so-called ritual ceremonies²⁸.

CONCLUSIONS

In spite of the two years that passed since the entry into force of the 'anti-booster' regulations, the market associated with their trade was not restricted. The rules influenced only the change of distribution and the profile of distributors who are more and more associated with criminal environment. It seems that the factor limiting the effectiveness is lack of

²⁸ M. Safjański, J. Gołębiewski, *Zjawisko obrotu dopalaczami w Polsce...*, p. 5–6.

an effective strategy in this field. A definite reduction of the availability of these substances is an important issue due to their destructive effect on the human body both, somatic and psychic.

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