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Purity and typical commercial doses of popular drugs in Poland: analysis of current trends

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Abstract

The Polish drug market is characterised by the high availability of cannabis products, both in the form of marijuana and hashish, as well as by the continued production of synthetic drugs, particularly cathinone and amphetamine derivatives. Poland plays an important role as a transit country for drug trafficking within the European Union, facilitating the movement of substances such as heroin and cocaine. In addition, the continuous emergence of new psychoactive substances (NPS) remains a significant challange.

Keywords: illicit drug market; drug purity; commercial doses; new psychoactive substances

Introduction

In response to the dynamic changes occurring in the Polish drug market, the Minister of Health introduced significant amendments to the Regulation of 30 April 2025 (Journal of Laws 2025, item 598) concerning the list of psychotropic substances, narcotic drugs, and new psychoactive substances. Group II-P of psychotropic substances was expanded to include new compounds such as 3-CMC (clophedrone), dipentylone, 2-FDCK (2-fluorodeschloroketamine), and lisdexamfetamine. Bromazolam was added to Group IV-P, while butonitazene was included in the list of narcotic drugs belonging to Group I-N. Regarding new psychoactive substances (NPS), changes were introduced to the descriptions of chemical groups, and eight new substances were added: Δ^9-THCP (delta-9-tetrahydrocannabiphorol), HHCP (hexahydrocannabiphorol), gidazepam, MDMB-5Br-INACA, ADB-INACA, ADB-5Br-INACA, as well as ibotenic acid and muscimol.The chemical structure of synthetic cannabinoids was updated by introducing a new 1H-indol-2-one-1,3-diyl group. With regard to fentanyl derivatives, the permissible conditions for the R2 and R3 sub-

stituents were modified, affecting the classification of specific chemical compounds as prohibited substances in Poland. Additionally, a completely new category VIII-NPS group was introduced and defined in the new psychoaktive substances list – to include benzimidazole derivatives.

These changes aim to adapt the current legal regulations to the continuously emerging new psychoactive substances on the Polish market and to strengthen the effectiveness of preventive and control measures aimed at combat drug-related problems. At the same time, they represent part of a broader legislative process designed to keep pace with the rapidly and constantly evolving drug market.

The aim of this article is to review and summarise trends in the Polish drug market over recent years.

Current drug trends in Poland

According to data collected by the Police through the Electronic Reporting System (SESPol) and submitted to the National Centre for Prevention of Addictions (KCPU), 30 tonnes of drugs were seized in Poland in 2024. In 2025, this amount increased to 44 tonnes. Cannabis remains the most commonly used illicit psychoactive substance in Poland. In 2024, officers of the Central Bureau of Investigation of the Police (CBŚP), together with Voivodeship (KWP) Police Headquarters and the Warsaw Metropolitan Police Headquarters (KSP), seized approximately 6,546 kg of cannabis (excluding hemp), according to data submitted to the KCPU. This highlights the dominant position of marijuana on the domestic drug market and its high availability. In the same year, 529 illicit cannabis plantations were detected and dismantled, including several professionally organised cultivation sites (Figure 1). In addition to outdoor cultivation (224 outdoor plantations), cannabis is also grown indoors. The plants are cultivated both in pots and in hydroponic systems using nutrient-enriched water, specialised lighting, and humidity control to promote faster plant growth (305 indoor plantations).

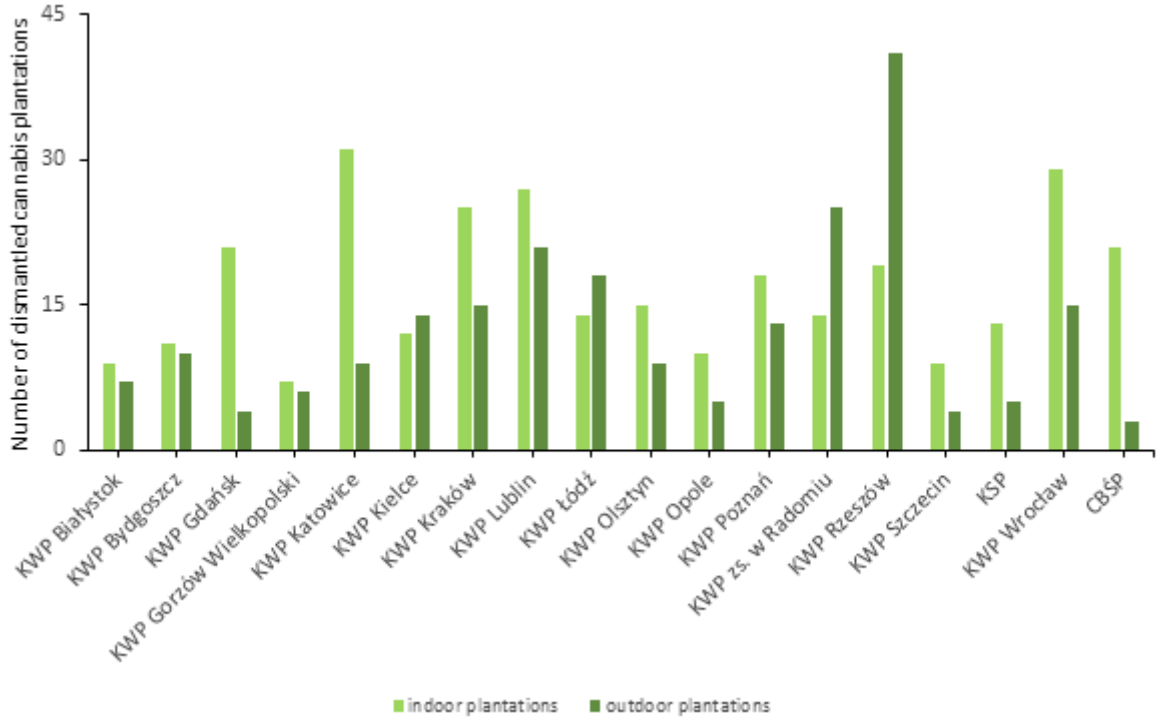
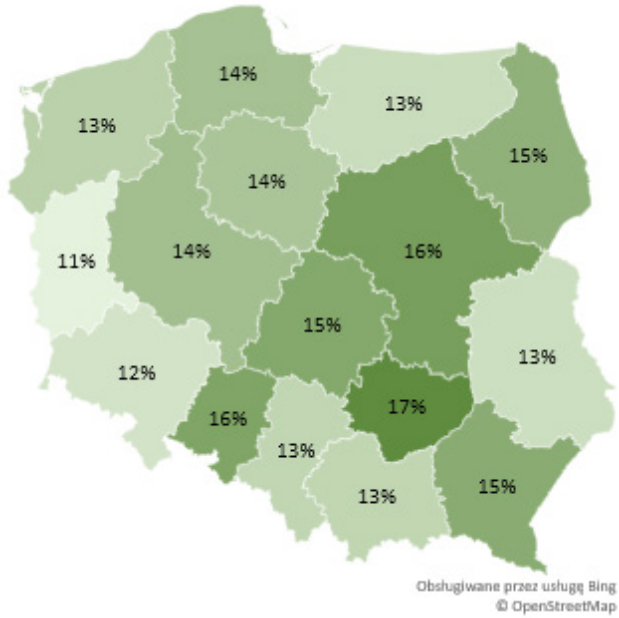


Fig. 1. Number of cannabis plantations dismantled in 2024, by cultivation type: indor (light green) and outdoor (dark green) (based on data from National Police Headquarters (KGP) and CBŚP)

Cannabis plant material, particularly the flowering tops, is the primary raw material used for the production of various consumer products intended for the illicit drug market. In Poland, the material most frequently seized by law enforcement agencies is dried cannabis. The average total content of delta-9-tetrahydrocannabinol (Δ^9-THC) and delta-9-tetrahydrocannabinolic acid (Δ^9-THCA) in the seized material is presented in Table 1, based on data from police forensic laboratories. Another important category of seized substances is cannabis resin, commonly known as hashish, as well as cannabis oil.

Tab. 1. Total Δ^9-THC and Δ^9-THCA content in cannabis samples in 2024 and its graphical visualization (based on data from LK KSP/KWP)

Laboratory	Number of samples [pieces]	Minimum active substance content [%]	Maximum active substance content [%]	Average active substance content [%]
LK KSP	5610	0,50%	35,00%	18,00%
LK KWP Białystok	617	0,50%	29,00%	15,00%
LK KWP Bydgoszcz	612	0,50%	26,00%	13,90%
LK KWP Gdańsk	744	0,36%	30,04%	14,13%
LK KWP Gorzów Wlkp.	385	0,40%	36,70%	11,41%
LK KWP Katowice	1525	0,38%	34,00%	12,98%
LK KWP Kielce	1348	0,4%	42,0%	17,00%
LK KWP Kraków	1326	0,40%	26,00%	13,00%
LK KWP Lublin	863	0,40%	31,0%	12,50%
LK KWP Łódź	400	0,40%	36,00%	15.49%
LK KWP Opole	672	0,50%	31,10%	15,70%
LK KWP Olsztyn	367	0,50%	35,50%	12,60%
LK KWP Poznań	1496	0,40%	40,00%	14,25%
LK KWP zs. w Radomiu	1497	0,50%	28,00%	14,00%
LK KWP Rzeszów	846	0,35%	46,79%	15,26%
LK KWP Szczecin	944	0,40%	30,20%	13,24%
LK KWP Wrocław	407	4,70%	25,00%	12,20%



* for the Masovian Voivodeship, the average active substance content for LK KSP and LK KWP zs. w Radomiu

Figure 2 presents data collected by the Central Forensic Laboratory of the Police (CLKP) on changes in the total concentration of Δ^9-THC and Δ^9-THCA in cannabis between 2005 and 2024. Trend analysis indicates that since 2005, the average Δ^9-THC content has steadily increased from approximately 1% to around 10%, a level that remained relatively stable between 2011 and 2022 (Malczewski, 2023). However, the most recent data show that the average total content of Δ^9-THC and Δ^9-THCA increased to 13% in 2023 and to approximately 15% in 2024. For comparison, according to European data, the typical Δ^9-THC content of cannabis available on the European Union (EU) market ranges from 7% to 13% (European Monitoring Centre for Drugs and Drug Addiction, 2023b).

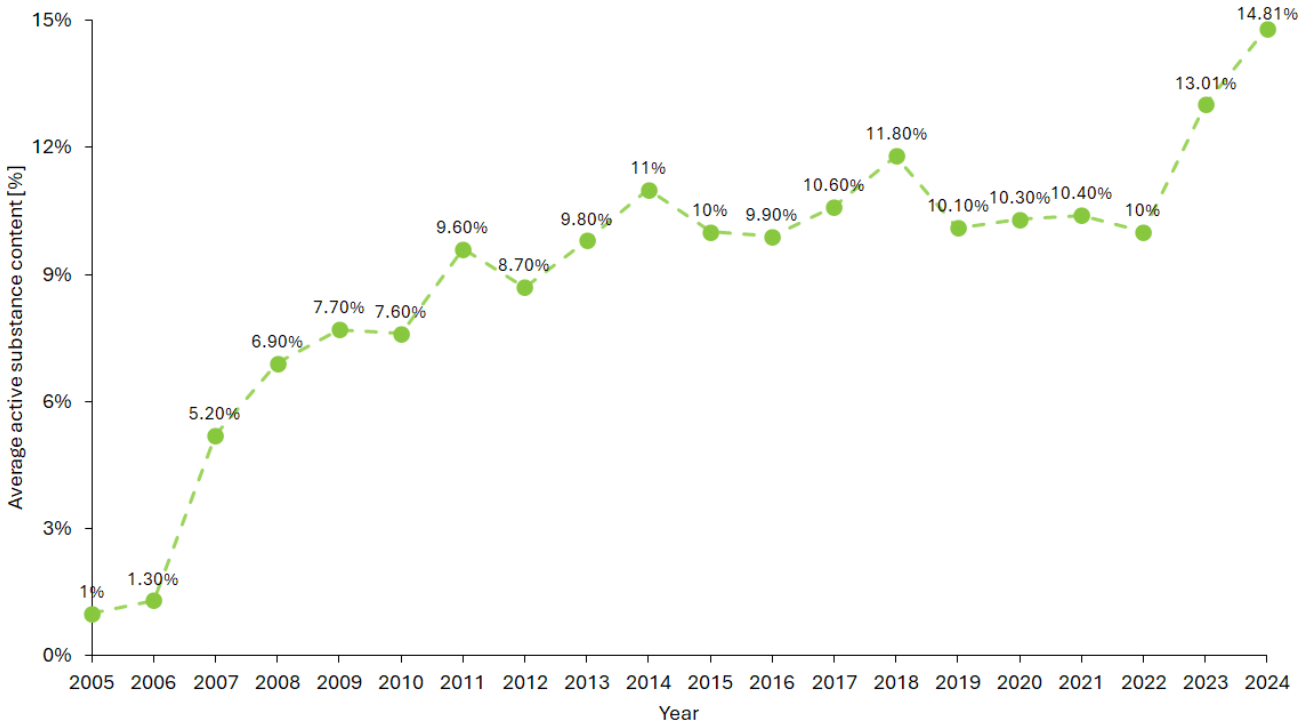


Fig. 2. Changes in the concentration of Δ^9-THC and Δ^9-THCA from 2005 to 2024 (based on data from LK KSP/KWP)

In recent years, the Polish drug market has experienced a significant increase in the variety of cannabis-based products, including oils, food products (mainly sweets such as jelly candies and cookies), as well as liquids for electronic cigarettes and vaping oils. The range of cannabinoids present in these products includes both naturally occurring compounds, such as Δ^9-THC, cannabidiol (CBD), cannabinol (CBN), and cannabichromene (CBC), as well as semi-synthetic derivatives, including Δ^8-THC, hexahydrocannabinol (HHC), its acetyl derivative HHC-O, and synthetic hexahydrocannabiphorol (HHC-P). In analysed samples, the simultaneous presence of HHC and Δ^8-THC or Δ^9-THC is frequently observed. This results from the fact that CBD cyclisation may produce Δ^9-THC or Δ^8-THC as intermediate products, depending on the reaction conditions applied (Russo et al., 2023). The emergence of semi-synthetic cannabinoids is associated with a rapid decline in the price of mass-produced CBD obtained from hemp with a low Δ^9-THC content. Following the initial increase in popularity of CBD products on lifestyle and health markets, overproduction led to a significant reduction in wholesale prices. Other semi-synthetic cannabinoids, including Δ^8-THCV and Δ^8-THCM, have also been identified on the European drug market (European Union Drugs Agency, 2025). Following the introduction of legal controls on synthetic cannabinoids in China, the availability of compounds such as MDMB-4en-PINACA and ADB-BUTINACA in Europe has become limited (European Union Drugs Agency, 2025). In 2024, forensic laboratories of law enforcement agencies, operating within the framework of the European Union Early Warning System (EU EWS), identified, among others, 5F-MDMB-PICA (5.53 g), ABD-4en-PINACA (22.7 g), and ADB-BUTINACA (2,283.0 g) in plant material. In the case of semi-synthetic and synthetic cannabinoids, plant material often serves as an inactive matrix for the psychoactive substance. Such a matrix may also consist of herbal mixtures (so-called base material) or cannabis with a low Δ^9-THC content. Pure chemical compounds are dissolved in organic solvents and then applied to the surface of plant material in the form of an aerosol (Waluk, 2016). During microscopic examinations, a deposits of these substances in the form of crystals or droplets was frequently observed on the surface of the matrix (Figure 3A, B).

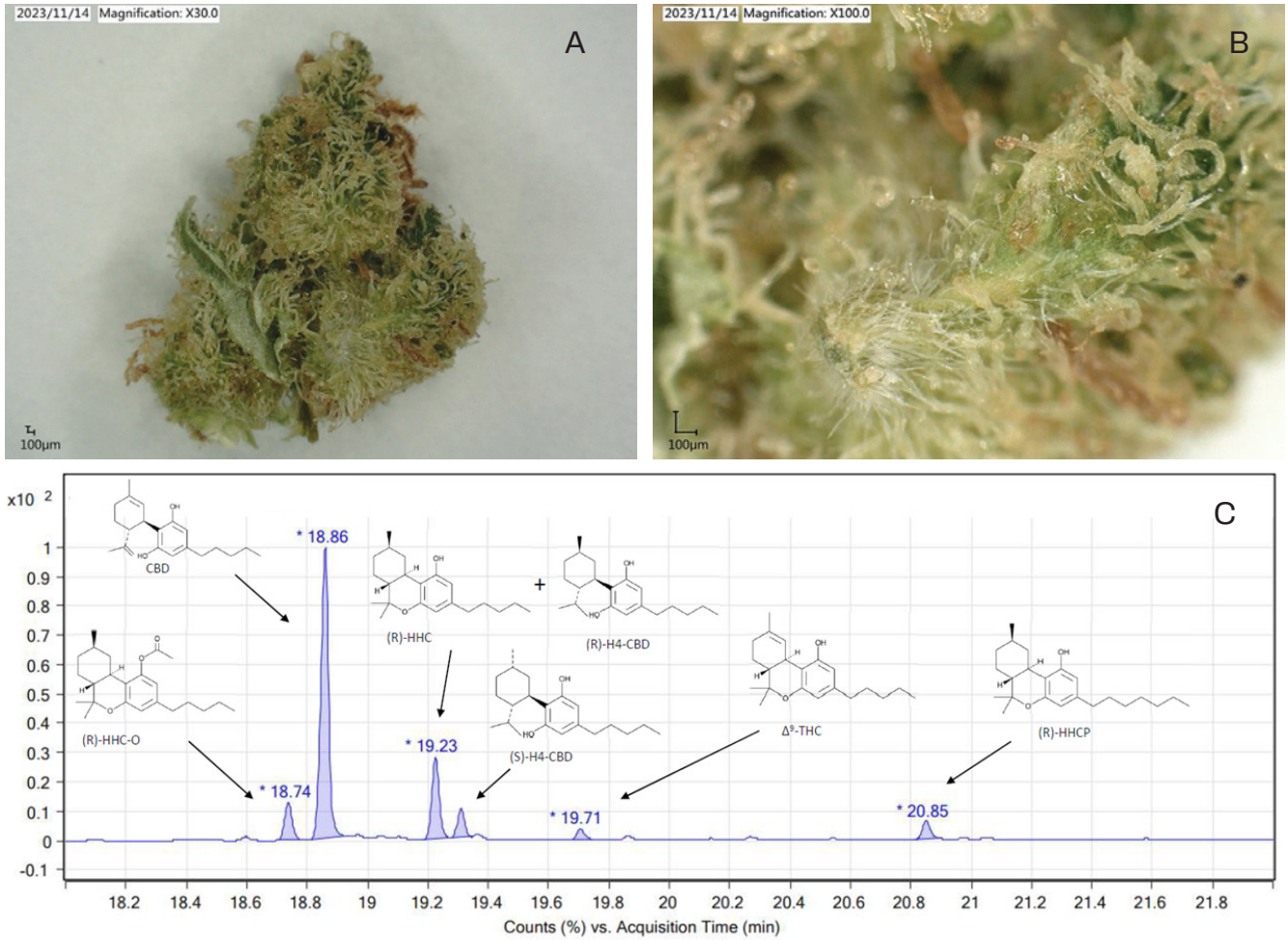


Fig. 3. Drops of semi-synthetic and synthetic cannabinoids on the surface of plant material (A, B) and the chromatogram obtained from qualitative analysis using GC-MS (C)

The increase in the number of synthetic drug seizures, the growing diversity of chemical precursors, and the increasing professionalisation of illegal production have resulted in a rapid increase in the number of illicit laboratories worldwide. These facilities are involved in the synthesis, processing, extraction, and packaging of a wide range of narcotic substances. Poland, alongside the Netherlands and Belgium, remains one of the main centres of synthetic drug production in Europe. Data from recent years indicate a continued increase in the scale of this activity within the country. In 2024, officers of the Central Bureau of Investigation of the Police (CBŚP) and the Voivodeship Police Headquarters and the Warsaw Metropolitan Police Headquarters (KWP and KSP) dismantled a total of 102 illegal drug laboratories, 85 of which operated in Poland (Figure 3). These laboratories were primarily involved in the synthesis of stimulants, including cathinone derivatives such as clophedrone (3-CMC), clephedrone (4-CMC), mephedrone (4-MMC), as well as methamphetamine and amphetamine. Additionally, one laboratory producing the opioid methadone was dismantled, along with one facility manufacturing in HHC-containing products. By November 2025, the Polish Police had dismantled 84 laboratories operating within the country. These facilities were involved in the production of cathinone derivatives (3-CMC, 4-CMC, 4-MMC, as well as α-pyrrolidinovalerophenone (α-PVP)), methamphetamine (10 laboratories), and amphetamine (19 laboratories). Furthermore, two laboratories synthesising benzyl methyl ketone (BMK, P2P), a key precursor used in the production of amphetamine and methamphetamine, were dismantled. Additionally, one laboratory specialising in HHC-containing products and three facilities producing cannabis oil were also identified and dismantled.

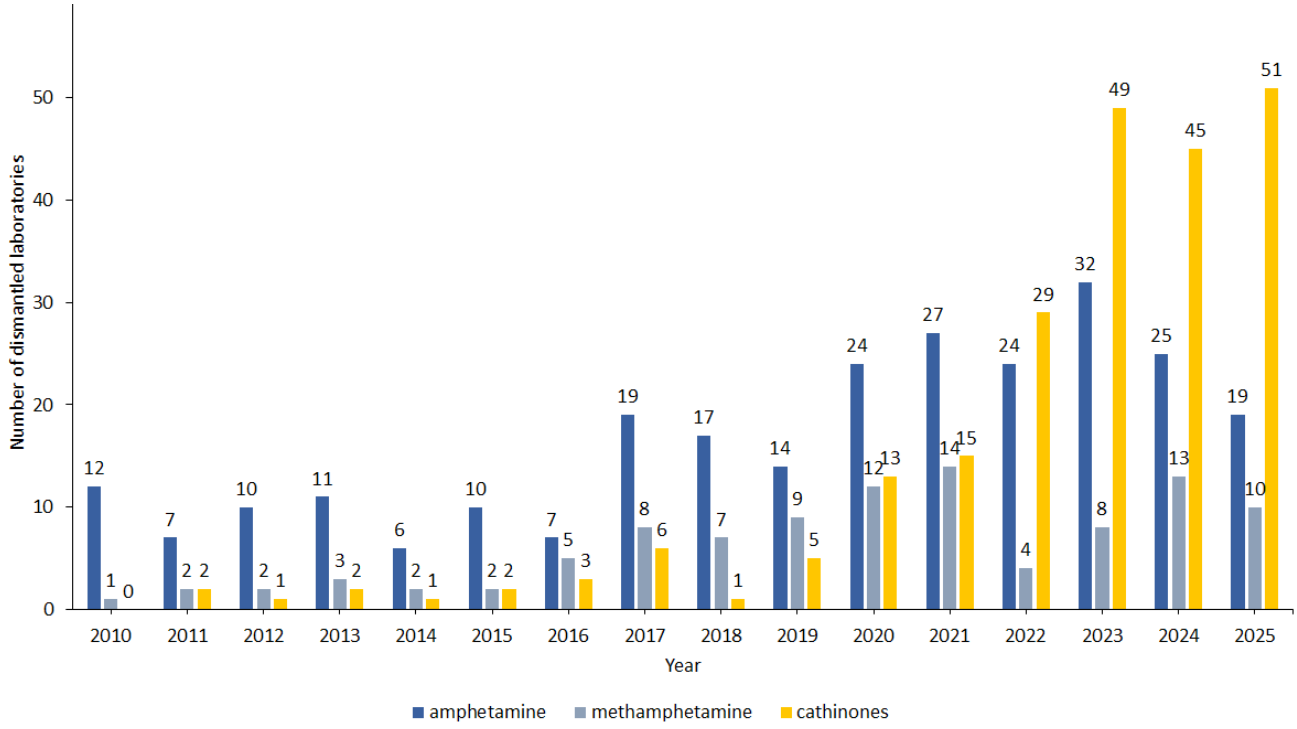
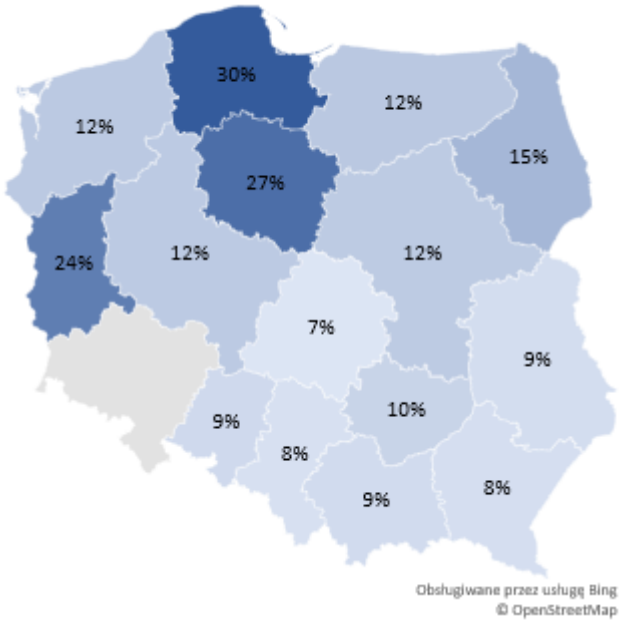


Fig. 4. Number of clandestine drug laboratories dismantled in Poland between 2010 and 2024, by the type of substance produced (amphetamine, methamphetamine, and synthetic cathinones) (based on data provided by KGP and CBŚP)

It is assumed that amphetamine consumed within the EU is entirely produced within its borders, with the main production centres located in the Netherlands and Belgium. In some cases, the production process is not fully completed in these countries, and amphetamine free base (so-called amphetamine oil) is smuggled to other countries. As a result, in most of the dismantled amphetamine synthesis laboratories operating in Poland, only the final stage of production is carried out. This stage involves a highly exothermic reaction between amphetamine free base and sulfuric acid (VI) (H_2SO_4), leading to the formation of amphetamine sulfate, followed by drying, dilution, and packing of the drug for distribution. Another commonly observed practice is the so-called "quenching of amphetamine", which involves mixing amphetamine free base with caffeine, resulting in a ready-to-use product in the form of a loose powder semi-moist material, or paste. In practice, this process bypasses the typical precipitation of amphetamine in the form as a salt, which requires precise dosing of sulfuric acid (VI). An insufficient amount of acid leads to the formation of a salt in the form of a yellow powder, which gradually transforms into a brown, unstable mass over time. A significant excess produces a raspberry-coloured liquid, representing an irreversible stage of the process. The average percentage content of amphetamine in seized samples analysed by individual police laboratories in 2024 is presented in Table 2. Due to the continued availability of the drug precursor phenyl-2-nitropropene (P-2-NP), the nitrostyrene method currently remains the dominant method used in laboratories involved in the synthesis of amphetamine in Poland and Europe.

Tab. 2. Amphetamine content in samples in 2024 and its graphical visualization (based on data from LK KSP/KWP)

Laboratory	Number of samples [pieces]	Minimum active substance content [%]	Maximum active substance content [%]	Average active substance content [%]
LK KSP	5783	12%	16%	15%
LK KWP Białystok	142	5,00%	61,00%	14,85%
LK KWP Bydgoszcz	34	6,00%	99,00%	27,00%
LK KWP Gdańsk	133	0,13%	91,90%	30,03%
LK KWP Gorzów Wlkp.	6	12,30%	58,40%	24,35%
LK KWP Katowice	206	1,00%	28,00%	8,00%
LK KWP Kielce	679	2,00%	21,0%	10,0%
LK KWP Kraków	182	2,00%	21,00%	8,70%
LK KWP Lublin	79	3,00%	26,0%	8,5%
LK KWP Łódź	208	0,10%	19,00%	7,14%
LK KWP Opole	256	1,00%	20,00%	9,00%
LK KWP Olsztyn	149	1,00%	81,00%	12,00%
LK KWP Poznań	492	2,00%	23,00%	11,69%
LK KWP zs. w Radomiu	760	<3,00%	16,00%	8,00%
LK KWP Rzeszów	136	1,00%	25,00%	8,24%
LK KWP Szczecin	833	3,30%	60,00%	11,80%
LK KWP Wrocław	N/A	N/A	N/A	N/A



* for the Masovian Voivodeship, the average active substance content for LK KSP and LK KWP zs. w Radomiu

Trend analysis presented in Figure 5 indicates that since 2005, the average amphetamine content has steadily decreased from approximately 54% to around 13%, a level that has remained relatively stable in recent years. For comparison, according to European data, the typical amphetamine content the EU drug market is around 24% (European Monitoring Centre for Drugs and Drug Addiction, 2023a).

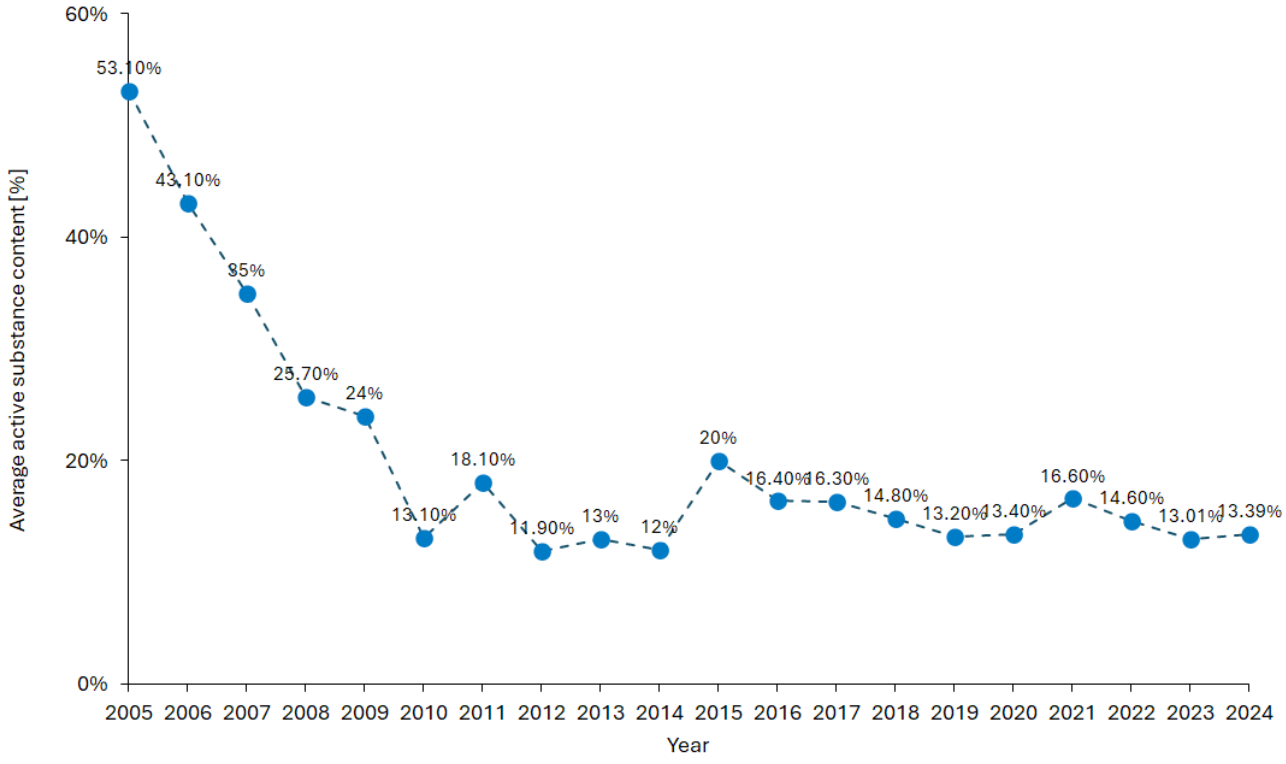


Fig. 5. Changes in amphetamine concentration from 2005 to 2024 (based on data from LK KSP/KWP)

The growing activity of groups linked to Mexican drug cartels in Poland has contributed to an increase in methamphetamine production, which is reflected in the rising number of dismantled clandestine laboratories and seizures of finished products. This phenomenon is part of a broader trend also observed in other EU Member States (European Monitoring Centre for Drugs and Drug Addiction, 2022).

In addition, regulatory gaps in the procurement of precursors such as methylamine, 2-bromopropiophenone derivatives, and 2-bromovalerophenone derivatives have facilitated the increasing number of laboratories involved in the synthesis of synthetic cathinones, including 3-CMC, 4-CMC, 4-MMC, and α-PVP. The production of synthetic cathinones most commonly involves the reaction of the corresponding bromoketone with a methylamine solution, resulting nucleophilic substitution of the bromine atom by an amino group. It has also been observed that, depending on the type of bromoketone used, different analogues such as 4-MMC, methedrone (3-MMC), 4-CMC, or 3-CMC can be produced interchangeably within the same laboratory.

Cathinone laboratories are characterised by large-scale production. Seizures often involve tens or even hundreds of kilograms of crystalline final product, as well as thousands of litres of reaction mixtures, post-reaction mixtures, and waste, which frequently also contain small amounts of active substances. A new phenomenon on the Polish drug market was the detection and dismantling of four laboratories producing α-PVP, although the scale of production was relatively small compared with that of laboratories producing other cathinone derivatives.

The Polish MDMA market is largely supplied by illegal laboratories located in the Netherlands and Belgium (European Union Drugs Agency, 2025a). These countries produce tablets with various shapes, colours, and markings, often designed to meet the preferences of specific markets, including the Polish market. The region has developed advanced production models based on the use of commercial tablet presses, which enable the manufacture of several hundred to several hundred thousand tablets per hour. The tableting process requires precise adjustment of the press and the use of appropriate excipients (binders and diluents) to ensure that the resulting tablets are sufficiently durable to withstand transport and distribution, while also being soft enough to dissolve in the gastrointestinal tract. Markings and logos on tablets are applied using interchangeable punches (Figure 6A–F).

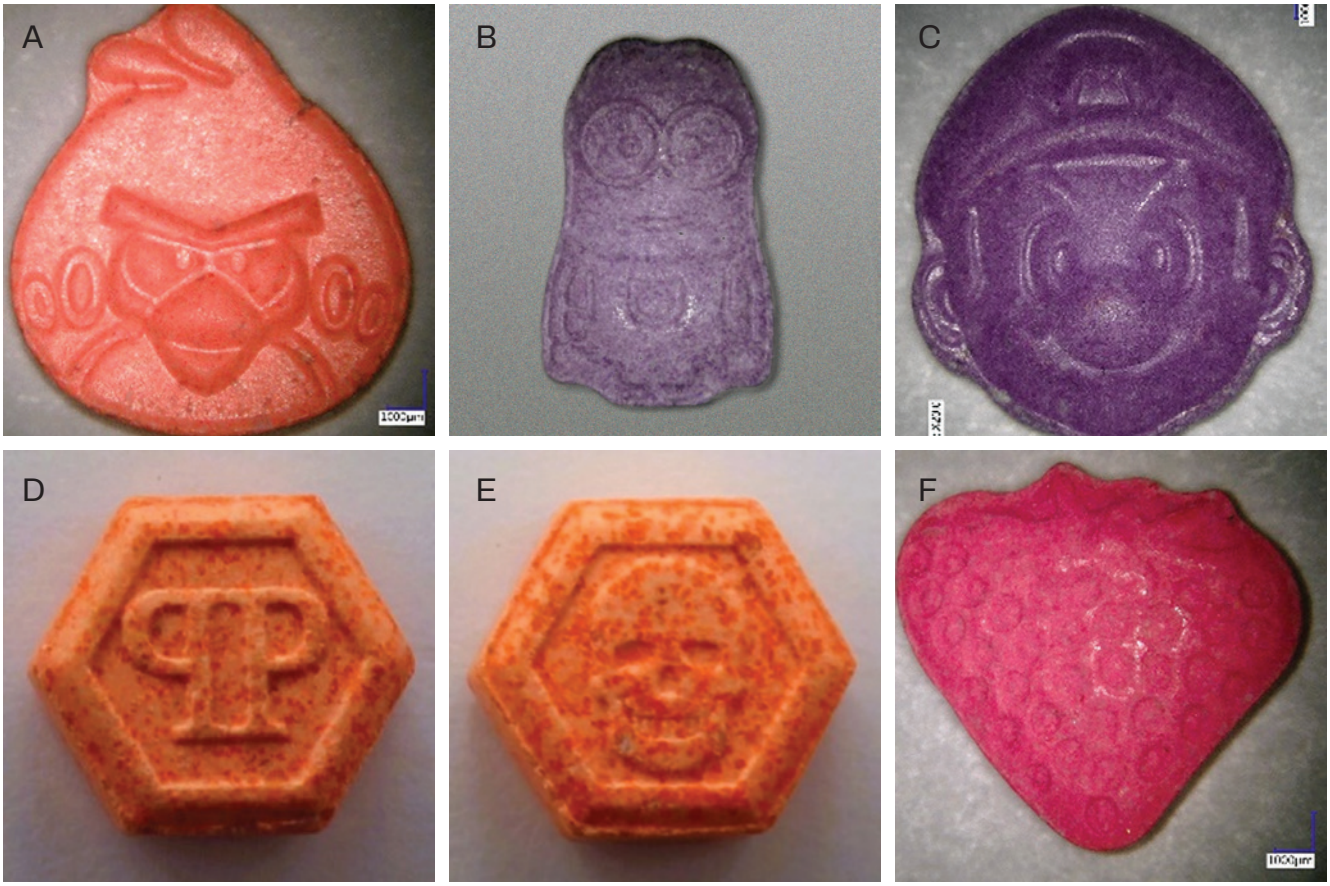


Fig. 6. Evidence in the form of tablets containing MDMA

In the case of cocaine, Poland serves both as a transit country and as a destination market. Suppliers from Latin America smuggle cocaine into the country, often concealing it in legal cargo transported through Polish ports. Cocaine trafficking is a highly complex phenomenon that extends beyond its most commonly known form — cocaine hydrochloride intended for further dilution and distribution.

In practice, this drug may also occur in intermediate forms, such as cocaine paste, and can be disguised through various chemical approaches, including the formation of complexes with metal ions (e. g., iron, copper, or zinc) and thiocyanate. These compounds may alter its physicochemical properties and make detection using standard analytical methods more difficult. Additionally, the substance may be concealed within complex matrices, significantly complicating its identification during customs inspections.

Poland also plays a role as a transit country in heroin trafficking. Smuggling routes mainly originate in Afghanistan, pass through the Balkans and Turkey, and then continue to Western Europe. Although domestic heroin consumption remains relatively low, organised crime groups actively participate in the trafficking of this drug, facilitating its transport, among other destinations , to Germany and the United Kingdom (Global Initiative Against Transnational Organized Crime, 2025).

In recent years, ketamine has also emerged on the Polish market. The substance has been confiscated in the form of powder, crystals, and tablets (14,737.18 g; according to data provided to KCPU, the total amount was 62.99 kg). This phenomenon is likely associated with the growing popularity of so-called pink cocaine (also known as *tusi*) (Figure 7). Pink cocaine is a powdered mixture of various psychoactive substances, coloured pink and characterised by a sweet aroma. Laboratory analyses have shown that pink powders may contain different combinations of substances, including ketamine and MDMA, ketamine and methamphetamine, as well as ketamine combined with both MDMA and methamphetamine.

However, it should be emphasised that the chemical composition of pink cocaine is highly variable and represents a mixture of different psychoactive substances, including compounds such as 2C-B, 2C-I, or amphetamine. Despite its name, cocaine is usually not present in this preparation or occurs only in trace amounts. The intense pink colour is intended to make the product easily distinguishable fro m other substances present on the drug market, such as cocaine or methamphetamine. The colour is obtained through the addition of food dyes, while the characteristic strawberry-like smell is achieved by using flavouring agents.

Within the framework of the EU EWS, the European Union Drugs Agency (EUDA) reports the emergence of several dozen new psychoactive substances in Europe every year (Figure 8). In 2024, a total of 47 new psychoactive substances were reported to the EU EWS by the 27 European Union Member States, Turkey, and Norway. The number of new psychoactive substances reported in 2024 remained similar to that reported between 2016 and 2023.

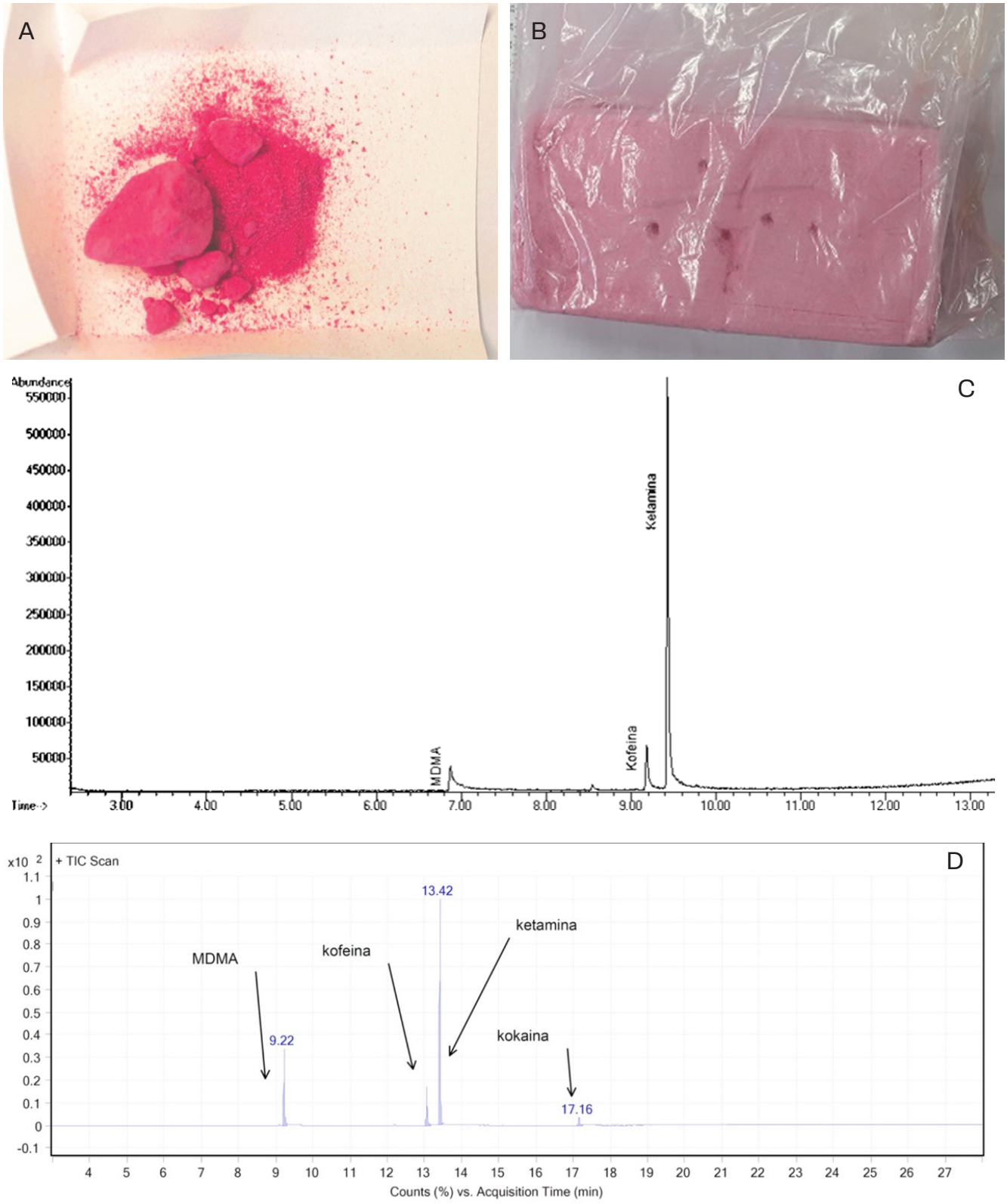


Fig. 7. Evidence in the form of a partially agglomerated pink substance (A), which is a mixture of MDMA, ketamine, and caffeine (C), evidence in the form of a compressed pink substance (B), which is a mixture of MDMA, ketamine, caffeine, and cocaine (D)

Among the newly identified compounds, 20 were new cannabinoids, of which 18 were semi-synthetic cannabinoids. The presence of these substances was also reported in Poland. At the same time, changes were observed in the European market for cathinone derivatives. In some regions of Europe, including Poland, these substances have started to serve as alternatives to traditional stimulants such as amphetamine and cocaine. It has been suggested that some users deliberately seek out cathinone derivatives, considering their effects comparable to those of classical stimulants. This trend reflects significant changes in the market since the period of greatest popularity of the so-called “legal highs” in 2014–2015, when nearly 30

new cathinone derivatives were identified each year. For comparison, in 2024 only seven new substances from this group were reported for the first time.

In 2024, seven new synthetic opioids were also formally reported, all belonging to the nitazene group. This represented the highest number of newly detected nitazene opioids recorded in recent years. However, the opioid situation in Europe remains dynamic and largely dependent on international developments. The ban on opium poppy cultivation introduced by the Taliban in Afghanistan in April 2022 resulted in a significant reduction in opium production. However, it remains unclear to what extent this will affect heroin availability in Europe, mainly due to the continued existence of opium stockpiles in Afghanistan. A potential reduction in heroin supply may contribute to the growing importance of synthetic opioids and other substitute substances. Market developments are also influenced by regulatory measures, such as those introduced by China in 2024 concerning the legal control of nitazene opioids, covering a total of tensubstances. These changes may lead to the gradual replacement of previously dominant compounds, such as metonitazene and protonitazene, with new derivatives or substances belonging to other families of synthetic opioids. Evidence supporting these developments is provided by the increased detection of compounds belonging to the "-orphine" family observed since mid-2024. This may indicate further evolution of the European opioid market and the emergence of new challenges for monitoring systems and public health (European Union Drugs Agency, 2025).

New psychoactive substances (NPS) are also present on the Polish drug market. According to data collected within the framework of the EU EWS in 2024, police laboratories identified, among others, cathinone derivatives such as 2-methylmethcathinone (2-MMC; 13,528.47 g; according to data provided to KCPU, the amount was 4.38 kg)*, 2-chloromethcathinone (2-CMC; 67.3 g; according to data provided to KCPU, the amount was 1.35 kg)*, N-ethylnorpentedrone (NEP; 31,854.42 g and 1,992 units; according to data provided to KCPU, the amount was 17.95 kg)*, α-pyrrolidinohexanophenone (α-PHP; 473.17 g; according to data provided to KCPU, the amount was 2.08 kg)*, and

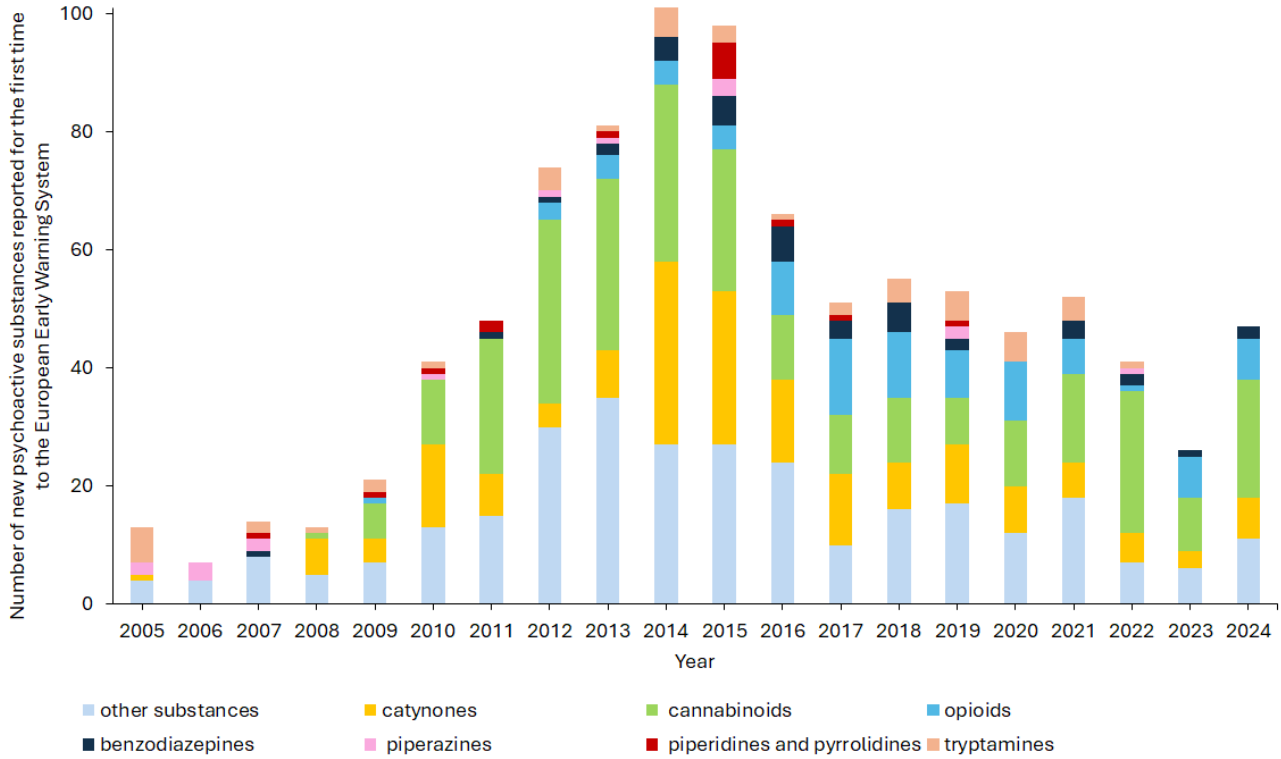


Fig. 8. Number of new psychoactive substances reported for the first time to the European Early Warning System from 2005 to 2024, broken down into categories: cathinones, cannabinoids, opioids, benzodiazepines, piperazines, piperidines and pyrrolidines, tryptamines, other substances, including aminoindanes, arylalkylamines, arylcyclohexylamines, phenethylamines

α-pyrrolidinoisohexanophenone (α-PiHP; 7,981.10 g and 405 units; according to data provided to KCPU, the amount was 24.08 kg)*. These substances were found in various forms, including crystals, powder, and tablets. Synthetic opioids were also seized, including metonitazene (12,632 units; according to data provided to KCPU, the amount was 3.5 kg)* in tablet form, as well as a mixture of 5-methyl etodesnitazene, isotodesnitazene, and protodesnitazene (234.90 g) in the form of dried plant material. Methadone was detected in both liquid and powder forms (359 ml and 3,994.58 g, respectively; according to data provided to KCPU, the amount was 176 kg)*. The liquid form most often originated from the resale of preparations obtained through substitution therapy, whereas powdered methadone resulted from illegal production. Semi-synthetic pharmaceutical opioids were also seized, mainly in the form of tablets containing oxycodone (4,086 units; according

to data provided to KCPU, the amount was 2.18 kg)*, codeine (33.25 g; according to data provided to KCPU, the amount was 0.15 kg)*, and buprenorphine (4.00 g; according to data provided to KCPU, the amount was 0.23 kg)*. Benzodiazepine derivatives are also present on the Polish market, including alprazolam (51,109 units), bromazolam (673 units), clonazepam (12,985 units), nordazepam (5 units), flualprazolam (10 units), flubromazolam (72 g), and flunitrazolam (134 g), most commonly found in tablet form.

* Differences between the presented data result from the different objectives and methodologies used by the respective institutions.

Weight of typical commercial portions

In forensic expert opinions, the concepts of a commercial drug portion (retail unit) and an intoxicating dose are of key importance, as they refer to different aspects of the distribution and use of psychoactive substances. A commercial portion refers to the amount of a drug offered in a single retail transaction, whereas an intoxicating dose is the minimum amount of a substance capable of producing a specific pharmacological effect in a person using it for the first time. This dose may be administered through various routes, including oral, inhalation, intravenous, intramuscular, subcutaneous, or transmucosal administration (Krawczyk et al., 2004).

In an article by W. Krawczyk and co-authors, published in *Issues of Forensic Science* in 2004, it was indicated that typical retail portions of stimulants in Poland at that time were characterised by relatively low weights and usually amounted to 80–120 mg for amphetamine and 100–200 mg for cocaine (Krawczyk et al., 2004). However, significant changes have occurred in the drug market over the following years, primarily related to fluctuations in the purity of available substances.

As demonstrated by studies conducted by A. Trynda and A. Duszyńska, published in *Issues of Forensic Science* in 2019, the decrease in amphetamine purity resulted in the emergence of considerably larger retail portions, reaching 0.5–1 g (Trynda et al., 2019). Data from EUDA confirm these observations, indicating that on most European markets, the standard retail unit for stimulants, including amphetamine, methamphetamine, and cocaine, has become 1 gram (European Monitoring Centre for Drugs and Drug Addiction, 2023a).

However, in forensic practice, when substances are seized in quantities below 1 gram and packaged in individual resealable plastic bags or other packets (plastic, paper, foil packages, etc.) intended for further sale or use, the amount of powder contained in a single unit package is considered to constitute a commercial portion (retail unit).

The data used to prepare the comparison of commercial drug portions were obtained from the Forensic Laboratories of the Voivodeship Police Headquarters, the Warsaw Metropolitan Police Headquarters, and the Central Forensic Laboratory of the Police. Based on the collected information, Table 3 was prepared, presenting typical commercial portions of drugs in Poland in 2024, by voivodeship, with separate data provided for Warsaw.

In contrast, the accurate determination of the number of intoxicating doses requires quantitative analysis of the evidential material, involving the determination of the psychoactive substance content rather than merely establishing its net weight. Specialist knowledge in the fields of toxicology and pharmacology is also essential. Only the combined consideration of chemical analysis results and toxicological data allows a reliable assessment of the potential number of doses capable of producing an intoxicating effect.

Tab. 3. Typical commercial doses of selected drugs in 2024

Region	Ampheta--mine	Meth-am-pheta-mine	Cocaine	MDMA	Heroin	Cannabis	Hashish	3-CMC	4-CMC	4-MMC	α-PVP
Warszawa	0,5 g - 1,0 g	0,5 g	0,5 g	1 tabletka	0,25 g	0,5 - 1,0 g	1 g	0,5 g - 1,0 g	0,5 g - 1,0 g	0,5 g - 1,0 g	0.25 g - 0,5 g
Dolnośląskie	0,5 g - 1,0 g	0,5 g - 1,0 g	0,5 g - 1,0 g	1 tabletka	N/A	0,5 g - 1,0 g	0,5 g - 1,0 g	0,5 g - 1,0 g	0,5 g - 1,0 g	0,5 g	N/A
Kujawsko-Pomorskie	0,5 g - 1,0 g	0.5 g	0,5 g	1 tabletka	0,25 g	0,5 g - 1,0 g	0,5 g - 1,0 g	0,5 g - 1,0 g	0,5 g - 1,0 g	N/A	0,5 g
Lubelskie	0,5 g - 1,0 g	N/A	0,5 g - 1,0 g	1 tabletka	N/A	0,5 - 1,0 g	1 g	0,5 g - 1,0 g	0,5 g - 1,0 g	0,5 g - 1,0 g	0.25 g -0,5 g
Lubuskie	0,5 g - 1,0 g	0,5 g - 1,0 g	0,5 g - 1,0 g	1 tabletka	N/A	0,5 g - 1,0 g	0,5 g - 1,0 g	0,5 g - 1,0 g	0,5 g - 1,0 g	N/A	N/A
Łódzkie	0,5 g - 1,0 g	N/A	0,5 g - 1,0 g	1 tabletka	N/A	0,5 g - 1,0 g	0,3 - 1,0 g	1 g	0,5 g - 1,0 g	0,5 g - 1,0 g	1,0 g
Małopolskie	0,5 g - 1,0 g	0,5 g - 1,0 g	1,0 g	1 tabletka	N/A	0,5 - 1,0 g	N/A	0,5 g - 1,0 g	0,5 g - 1,0 g	N/A	0,5 g - 1,0 g
Mazowieckie	0,5 g - 1,0 g	1,0 g	0,5 g - 1,0 g	1 tabletka	0,25 g	0,5 g - 1,0 g	0,5 g - 1,0 g	0,5 g - 1,0 g	0,5 g - 1,0 g	N/A	0,5 g
Opolskie	0,5 g - 1,0 g	0,25 g - 0,5 g	1,0 g	1 tabletka	N/A	0,5 - 1,0 g	0,5 g	0,5 g - 1,0 g	0,5 g - 1,0 g	N/A	N/A
Podkarpackie	0,5 g - 1,0 g	0,5 g	0,5 - 1,0 g	1 tabletka	0,25 g - 0,5 g	0,5 - 1,0 g	0,5 - 1,0 g	0,5 g - 1,0 g	0,5 g - 1,0 g	0,5 g	0,5 g
Podlaskie	0,5 g - 1,0 g	0.5 g	1,0 g	1 tabletka	N/A	0,5 - 1,0 g	1 g	1,0 g	0,5 g - 1,0 g	1,0 g	N/A
Pomorskie	0,5 g - 1,0 g	0.5 g	0,5 g - 1,0 g	1 tabletka	N/A	0,5 - 1,0 g	N/A	1,0 g	0,5 g - 1,0 g	0,5 g	0,25 g - 0,5 g
Śląskie	1,0 g	0,5 g - 1,0 g	1,0 g	1 tabletka	N/A	0,5 g - 1,0 g	N/A	0,5 g - 1,0 g	1,0 g	1,0 g	0,5 g - 1,0 g
Świętokrzyskie	0,5 g - 1,0 g	1,0 g	0,5 g	1 tabletka	N/A	0,5 - 1,0 g	0,5 - 1,0 g	0,5 g - 1,0 g	0,5 g - 1,0 g	1 g	N/A
Warmińsko-Mazurskie	0,5 g - 1,0 g	N/A	0,5 g	1 tabletka	N/A	0,5 g - 1,0 g	N/A	1,0 g	0,5 g - 1,0 g	N/A	N/A
Wielkopolskie	1,0 g	0,5 g - 1,0 g	1,0 g	1 tabletka	N/A	0,5 g - 1,0 g	0,5 g	0,5 g - 1,0 g	0,5 g - 1,0 g	0,5 g	0,5 g
Zachodniopomorskie	0,5 g - 1,0 g	N/A	0,5 g - 1,0 g	1 tabletka	N/A	0,5 - 1,0 g	0,5 - 1,0 g	1 g	0,5 g - 1,0 g	0,5 g - 1,0 g	N/A
Polska	0,5 g - 1,0 g	0,5 g - 1,0 g	0,5 g - 1,0 g	1 tabletka	0,25 g	0,5 g - 1,0 g	0,5 g - 1,0 g	0,5 g - 1,0 g	0,5 g - 1,0 g	0,5 g - 1,0 g	0,25 g - 0,5 g

*N/A – no data available

Summary

This article presents an overview of the Polish drug market over recent years. The market is characterised by the high availability of cannabis products other than industrial hemp, the illicit production of amphetamine, methamphetamine, and synthetic cathinones, as well as the continuous emergence of new psychoactive substances. Poland also serves as a transit country for cocaine and heroin trafficking within the European Union.

An analysis of European data, including information published by the European Union Drugs Agency (EUDA), shows that standard retail quantities of illicit drugs are usually 0.25 g, 0.5 g, or 1 g. In addition, a single tablet containing a controlled substance or an individual package containing up to 1 g of an illicit drug is also regarded as a standard retail unit.

An analysis of national data obtained from Polish police forensic laboratories shows that the drug market is largely uniform across the country. In most voivodeships, the typical retail quantity of an illicit drug ranges from 0.5 g to 1.0 g. Smaller quantities are commonly observed for heroin (0.25 g) and α-PVP (0.25–0.5 g).

Comparison of the national and European data indicates that the drug market in Poland generally follows overall European trends. Nevertheless, the Polish drug market is entering an important stage of development. In particular, the new European Union regulations on drug precursors are expected to have a significant impact on the illicit production of synthetic drugs. According to Commission Delegated Regulation (EU) 2026/314 of 9 February 2026, the following substances will be included in Category 1 of drug precursors from 18 September 2026: 3-chloropropiophenone and 2-bromo-3-chloropropiophenone (precursors of 3-CMC), 4-chloropropiophenone and 2-bromo-4-chloropropiophenone (precursors of 4-CMC), 3-methylpropiophenone and 2-bromo-3-methylpropiophenone (precursors of 3-MMC), 4-methylpropiophenone and 2-bromo-4-methylpropiophenone (precursors of 4-MMC), as well as phenyl-2-nitropropene (P-2-NP), a precursor used in the production of amphetamine. These changes will significantly reduce the availability of key chemicals used in the illicit manufacture of synthetic chloro- and methylcathinones and amphetamine. At the same time, an increase in the number of dismantled laboratories producing α-PVP has already been observed. This may indicate that organised criminal groups have already begun to adapt to the upcoming legal changes. As a result, the importance of substances that can be produced without the precursors covered by the new regulations may increase.

In conclusion, the rapid development of the drug market requires continuous updates to legal regulations. This includes expanding the lists of controlled substances, bringing new groups of chemical compounds under legal control through generic scheduling, and regularly updating the lists of drug precursors used in the illicit manufacture of narcotic drugs and psychotropic substances.

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