



EPS NPS PROJECT

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# THE DEMAND OF NEW PSYCHOACTIVE SUBSTANCES

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# EXECUTIVE SUMMARY

This Report presents the overall results achieved by the Project EPS/NPS - Enhancing Police Skills concerning Novel Psychoactive Substances (NPS) - with reference to the analysis of the demand of NPS in Europe, specifically in the Project's participating countries (Hungary, Italy, Poland and the United Kingdom) with a focus on the Italian and English context.

Findings provided by this study also concern the demand of NPS in order to understand how some characteristics of the request and use of these substances can shape and impact on the supply chain.

The Report is grounded on an extensive literature analysis and on a qualitative and quantitative approach applied to complementary data sources. Relevant inputs were collected during a focus group of experts organised by the EPS/NPS Project (Milan, April 2016) with the participation of experts from the four participating countries. An online survey to investigate the NPS patterns of use in Italy was also launched, in cooperation with the sostanze.info service ([www.sostanze.info](http://www.sostanze.info) - January-April 2016). Finally, the media representation of the NPS phenomenon was studied in Italy and UK.

## Key Findings:

- + Data from the International Early Warning Systems on NPS show that every year new types of NPS are emerging on the market. According to the latest World Drug Report (UNODC, 2016), Synthetic Cannabinoids seem to be the group of NPS that mostly shows a flexible and resilient market.
  - + Other groups of NPS show a significant presence on the market: this is the case of stimulants and sedatives.
  - + NPS are often found in products containing a combination of both new and traditional illicit drugs.
  - + Even if, according to the data from the Early Warning Systems on NPS, Synthetic Cannabinoids continue to be the group of NPS most widely spread across the market, trends of their use across different countries in the last few years show a decrease.
  - + Data available on the use of NPS among the general population shows low levels of prevalence.
  - + The low prevalence recorded suggests that NPS may be used in segments of the population not usually reached by researchers, national surveys or by the Health Services.
- Insights from the Italian case: the results of the online survey delivered by the EPS/NPS Project:**
- + Prevalence of the use of NPS in Italy seems to be lower if compared to other traditional drugs; however, most users of drugs already know about NPS and their effects. The Internet and the mass media are the most relevant sources of information.
  - + Among those who declare to already be NPS users, their use of NPS is very limited. In fact, they try them only once or twice in their lifetimes.
  - + People use NPS mainly during recreational nightlife activity, mostly during raves and free parties.
  - + NPS users generally look for substances that facilitate socialization and help to keep them awake during the night.
  - + Evidence shows that, especially in these recreational contexts, unwitting consumption is also emergent. Most NPS users already consume other drugs; the main pattern of use includes the combination of NPS with other legal (e.g. alcohol) and illegal drugs (poly-drug use).

- + People who decide to try NPS receive information on the substances mainly from friends and over the Internet. Accordingly, NPS could be defined as “community-drugs”.
- + Channels of provisions of NPS seem to be different from other illicit drugs: NPS are mostly provided by friends, who often promote the first use for free.
- + People who decide to buy NPS, find them from friends and via the Internet. They declare to be sure about the quality of the compounds/products they are buying.
- + During rave parties, NPS seem to be mostly offered by friends, while outdoors is the context where NPS are most frequently bought from strangers.

#### Insights from the mass media analysis on Italian and English newspapers:

##### Italian media: the analysis was conducted on *Il Corriere della Sera*, *La Stampa*, *La Repubblica*

- + Ketamine is the substance most cited as an NPS in the Italian newspapers. It is described as the NPS most used by drug/NPS consumers. This representation reflects the statistics available, since Ketamine has seen a large increase in use since the 90's, particularly in recreational contexts.
- + In general, information provided by the Italian media on NPS represents the substances and the market as an emerging and dangerous phenomenon, but relevant or understanding keys for a neutral and objective analysis of the phenomenon are not given. An example of this is the representation of NPS

users, who are often described as unaware people adopting unsafe and risky behaviours. This portrayal is somehow superficial, because it seems not to be based on empirical research, direct interviews or on specific investigations of the motivations behind the use of NPS. This attitude, if radicalised in parents and educators, could contribute to the increase the distance between adults and young people, making more awareness-raising initiatives and the role of education even more difficult.

##### UK media: the analysis was conducted on *The Guardian* and *The Times*.

- + The two newspapers have similar trends: there is a high concentration of media coverage in 2010, a significant decrease in 2011 and a gradual rise until 2015.
- + The main differences relate to the issues covered: while *The Times* focuses mostly on general news on drugs and related deaths, *The Guardian* pays more attention to social and political contexts.
- + “Legal highs” is the most used expression to define NPS in the English press.
- + The specific NPS most cited in the English newspapers is Mephedrone, since it was the first NPS widely used, thus receiving more specific attention.
- + The legalization of NPS is a topic widely discussed by columnists in the English press. The spread of situations where these substances escape drugs regulation has motivated some journalists to develop a different, more liberal outlook while others maintain a more repressive stance.

<sup>1</sup> The preliminary results are presented in the Intermediate Report. See M. Mignone, E. Bosio, Criminological analysis of the NPS market. The demand for NPS, 2016. Available at [www.npsproject.eu](http://www.npsproject.eu)

<sup>2</sup> The Early Warning Systems cited in this Report are referred to the UNODC Early Warning Advisory (EWA) on New Psychoactive Substances (NPS) and to the EU Early Warning System of the European Monitoring Centre for Drug and Drug Addiction (EMCDDA)

<sup>3</sup> UNODC, World Drug Report, 2016. Available at <http://www.unodc.org/wdr2016/>

# INTRODUCTION

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Since the last decade, the introduction on the market of a wide variety of New Psychoactive Substances (NPS) as legal alternatives to illicit drugs has led to growing attention on this phenomenon. Nevertheless, information and data concerning the demand of NPS still seem to be limited and not always exhaustive. The relationship between supply and demand and how they influence each other is still an issue that needs to be further investigated.

This Report intends to provide an overview of the main characteristics and matters surrounding the use of NPS, in particular focusing on:

- + Main NPS emerging on the market;
- + Prevalence NPS use emerging from available data at European and international level;
- + Description of main motivations and contexts of NPS use;
- + Knowledge and information available on NPS;
- + Main ways of obtaining NPS;
- + Key Factors driving the NPS use.

The Study focuses on the four EU Member States participating in the EPS/NPS Project, namely Italy, the UK, Poland and Hungary. A specific focus on Italy is provided, with the intention of generating knowledge about the NPS demand, since a lack of sources was identified during the research activity with respect to the other countries. In fact, the ESPAD Italia Study<sup>4</sup> is

the only national survey investigating the use of NPS among students. No national surveys focusing on NPS use among the general population are available yet in Italy. Despite the limited data available, the phenomenon of NPS has focused a great deal of attention in the national media recently, so the coverage of these substances is increasing.

The first part of this Report also outlines an overview of the main NPS in circulation on the market in order to delineate the main groups of substances identified by the UNODC Early Warning Advisory System on New Psychoactive Substances<sup>5</sup> and by the EU Early Warning System<sup>6</sup> for New Psychoactive Substances. Then, it focuses on the main characteristics of the NPS demand, with specific regard to the emerging trends. The second part provides a focus on Italy, showing the results from two specific initiatives developed by the EPS/NPS Project: an online survey focused on the demand and a mass media analysis intended to understand the representation of the NPS phenomenon in Italian newspapers (Il Corriere della Sera, La Stampa and La Repubblica). The analysis of the communication about the NPS phenomenon circulating among the national press is further integrated with the findings from a mass media analysis on some UK newspapers (The Guardian and The Times).

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<sup>4</sup> The survey is carried out every year by the National Research Council, Institute of Clinical Physiology among a representative sample of Italian students aged between 15 and 19 ([www.epid.ifc.cnr.it](http://www.epid.ifc.cnr.it)).

<sup>5</sup> The UNODC Early Warning Advisory (EWA) since June 2013 provides a response to the emergence of new psychoactive substances (NPS) at the global level. The EWA aims to monitor, analyse and report trends on NPS, as a basis for effective evidence-based policy responses. The system seeks to contribute to an improved understanding of the patterns of distribution and use of NPS. See [www.unodc.org/LSS/Home/BothAreas](http://www.unodc.org/LSS/Home/BothAreas).

<sup>6</sup> The EU Early Warning System collects information about NPS detected by EU Member States and reported to the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) and Europol. Detailed information on the manufacture, traffic and use, including supplementary information on possible medical use are provided and communicated to each other, to the representatives of the Reitox network of the Member States and the Europol National Units, to the European Commission and to the London-based European Medicines Agency (EMA).



# METHODOLOGICAL NOTE

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The Report is grounded on diverse research activities and on a qualitative and quantitative approach/methodology applied to complementary data sources, and in particular on:

- + Literature analysis: collection of articles, literature and Reports on NPS elaborated by national and international Authorities, Institutes and research centres in order to outline the existing scenario, with specific regard to the dimension and characteristics of NPS use;
- + In-depth analysis of the information and inputs collected during a focus group of experts, organised by the EPS/NPS Project (Milan, April 2016) and carried out with the participation of institutional representatives and NPS experts from the four Countries involved in the Project.<sup>7</sup>
- + In-depth analysis of the information and data collected by means of a national online survey, carried out by the EPS/NPS Project between January-April 2016 and delivered with the cooperation of [sostanze.info](http://sostanze.info),<sup>8</sup> with the intent to collect information about knowledge and use of NPS in Italy.
- + In-depth analysis of the media representation of NPS emerging from Italian and English newspapers.

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<sup>7</sup> The focus group involved 2 representatives of the National Reitox Focal point from Hungary and Poland respectively, two experts from the University of Hertfordshire and one researcher from the Italian National Research Council. The aim of the focus group was to collect relevant and detailed information about the main characteristics of the NPS market and supply chain in the four European Countries involved in the EPS/NPS Project, with specific regards to: substances, production, distribution and demand.

<sup>8</sup> The portal [www.sostanze.info](http://www.sostanze.info) is at present the most important Italian website on information and help on drugs. It is mainly addressed to people who want to know about the risks and dangers related to legal and illegal psychoactive substances and be informed about drug laws and regulations.

# MAIN CATEGORIES OF NPS CIRCULATING IN THE MARKET

The term New Psychoactive Substances (NPS) includes a great variety of substances with different molecular structures, effects and backgrounds. This causes major difficulties when a clear and complete classification of NPS is needed, as well as during the analysis of the phenomenon, where possible confusion or mistakes must be avoided. Accordingly, before focusing on the NPS market, a classification of the main groups of NPS identified and monitored so far by the International bodies are hereby provided, also in order to outline the specificities and characteristics of the substances.

## CLASSIFICATION OF NPS

**At present, there is no unique or harmonised classification of NPS**

**UNODC categorized the New Psychoactive Substances by following main groups:**

### + Aminoindanes.

This is a group of substances with stimulant effects mimicking traditional drugs such as cocaine, amphetamine, methamphetamine, and ecstasy. (Some examples: MDAI, N-methyl-2-aminoindane...);

### + Ketamine & Phencyclidine-type substances.

Ketamine is a human and veterinary anaesthetic that depending on dosage, can have different effects, from dissociative, to stimulant and hallucinogenic in high doses. Phencyclidine-type substances are a group of mainly sedative NPS which have recently appeared on the market. (Methoxetamine, 3-MeO-PCP, deschloroketamine 4-MeO-PCP);

### + Phenethylamines.

This group includes a broad range of compounds with both stimulant and psychdelic effects (2C-E, 2C-I, 4-FA and PMMA 4-FMA, 5-APB, 6-APB and 25C-NBOMe);

### + Piperazines.

These substances are known and used as stimulants and usually sold as ecstasy, and can be found in capsule or powder form. (BZP (1), mCPP, 2C-B-BZP, NSI- 189, 2,3-XP, DB-MDBP);

### + Tryptamines.

They are serotonergic hallucinogens and can be of both natural or synthetic origin (5-MeO-DMT, 5-MeO-AMT, 5-MeO-DMT);

### + Synthetic Cannabinoids.

This group includes a variety of compounds sold as legal replacements for cannabis (JWH-018 (1), AM-2201(1), 5F-AKB48, UR-144);

### + Synthetic Cathinones.

These substances have an active ingredient from the leaves of the Khat plant and are sold as legal replacements for stimulants such as amphetamines, methamphetamines and cocaine;

### + Plant-based substances.

These are hallucinogenic psychedelic substances. The main types are Khat, Kratom Salvia Divinorum;

### + Other Substances.

In this group UNODC includes a great variety of substances mainly with sedative effects which are not included in the other groups.

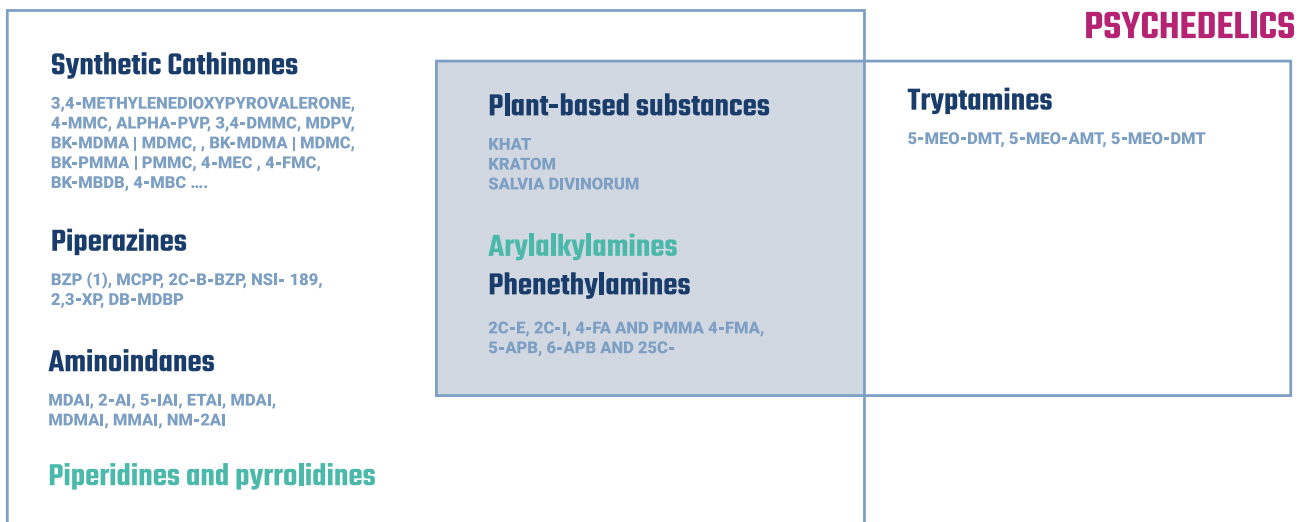
**In the latest Report from the European Monitoring Centre for Drugs and Drugs Addiction (EMCDDA) and Europol (EMCDDA-Europol, 2016),<sup>9</sup> the New Psychoactive Substances identified are listed as follows:**

- o Aminoindanes;
- o Arylcyclohexylamines, group of substances including Ketamine & Phencyclidine-type substances;
- o Synthetic Cathinones;
- o Synthetic Cannabinoids;

- Phenethylamines;
- Plants and extracts (Plant-based substances according to UNODC);
- Piperidines and pyrrolidines. These are stimulant substances included by UNODC in the group of “Other Substances” (2-DPMP, Buspirone, Ethylphenidate, Meperidine...);
- Arylalkylamines (UNODC includes these substances in the Group of Phenethylamines);
- Benzodiazepines. Benzodiazepines are widely used in medicine to treat anxiety and insomnia. These are synthetic substances normally seen as pharmaceutically-manufactured tablets, capsules and occasionally as injectable. UNODC includes these substances in the Group “Other Substances”;
- Opioids (Other Substances according UNODC);
- Other substances.

The figure below shows NPS grouped by effects and according to the classification provided by both UNODC and EMCDDA.

## STIMULANTS

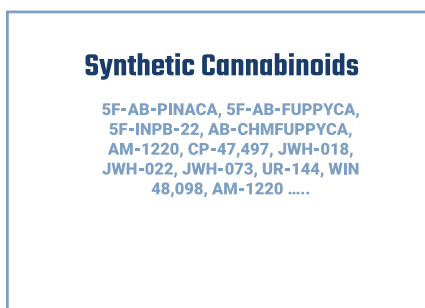


## PSYCHEDELICS

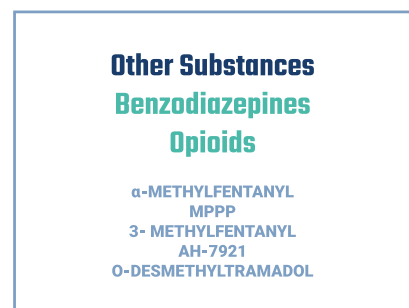
## DISSOCIATIVES



## CANNABINOIDS



## SEDATIVES



<sup>9</sup> EMCDDA–Europol, 2015 Annual Report on the implementation of Council Decision 2005/387/JHA, 2016. Available at [www.emcdda.europa.eu](http://www.emcdda.europa.eu)

## NPS IDENTIFIED BY THE UNODC EARLY ADVISORY SYSTEMS ON NEW PSYCHOACTIVE SUBSTANCES

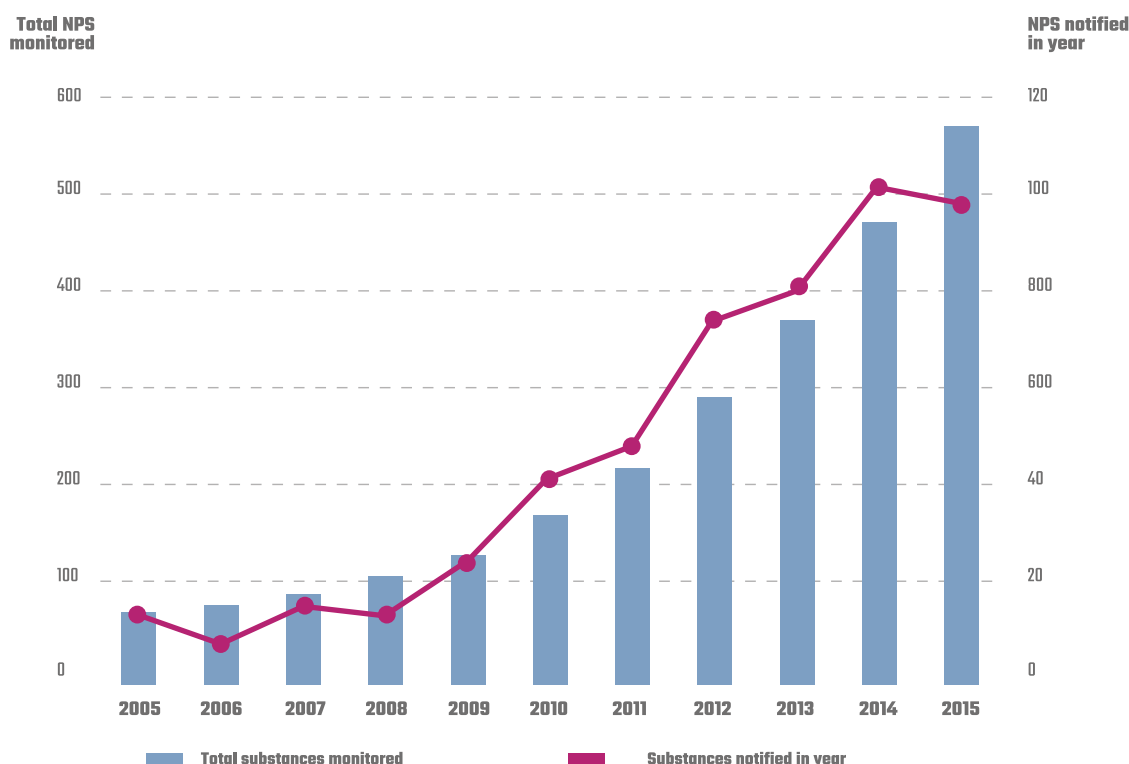
The UNODC World Drug Report 2016 (UNODC, 2016) shows that every year different types of NPS stabilize on the market and new types of substances and products appear. As underlined by the 2016 update of the Global Smart Programme (UNODC SMART, 2016), this is the peculiarity of the NPS market: “The NPS market has shown to be resilient as a result of its flexibility. The range of substances offered is rapidly adapted to change e.g. when legal controls are introduced or when substances become less popular because of their harmful effects. [...] An example of NPS market resilience is provided by Synthetic Cannabinoids. This group of substances evolves constantly in response to changes in national legislation. Chemical families with successive structural modifications evolve continuously to keep those substances in an ambiguous legal status. For instance, the emergence of the Naphthoylindoles (e.g. JWH-018) was quickly followed by the emergence of Naphthoylindazoles (e.g. THJ-018) and more recently of Indazole carboxamides (e.g. AKB-48)” (UNODC SMART, 2016)<sup>10</sup>

At international level, in 2015, 230 NPS have been reported to the UNODC Early Warning System of NPS (UNODC, SMART 2016)<sup>11</sup>, mostly of them are Synthetic Cannabinoids (77), Synthetic Cathinones (55), Other Substances (43) and Phenethylamines (37).

More recent and updated data from the latest EMCDDA and Europol Report (EMCDDA-Europol, 2016)<sup>12</sup> shows that, in 2015, 98 NPS have been notified, making a total of 570 substances monitored by the Early Warning System.

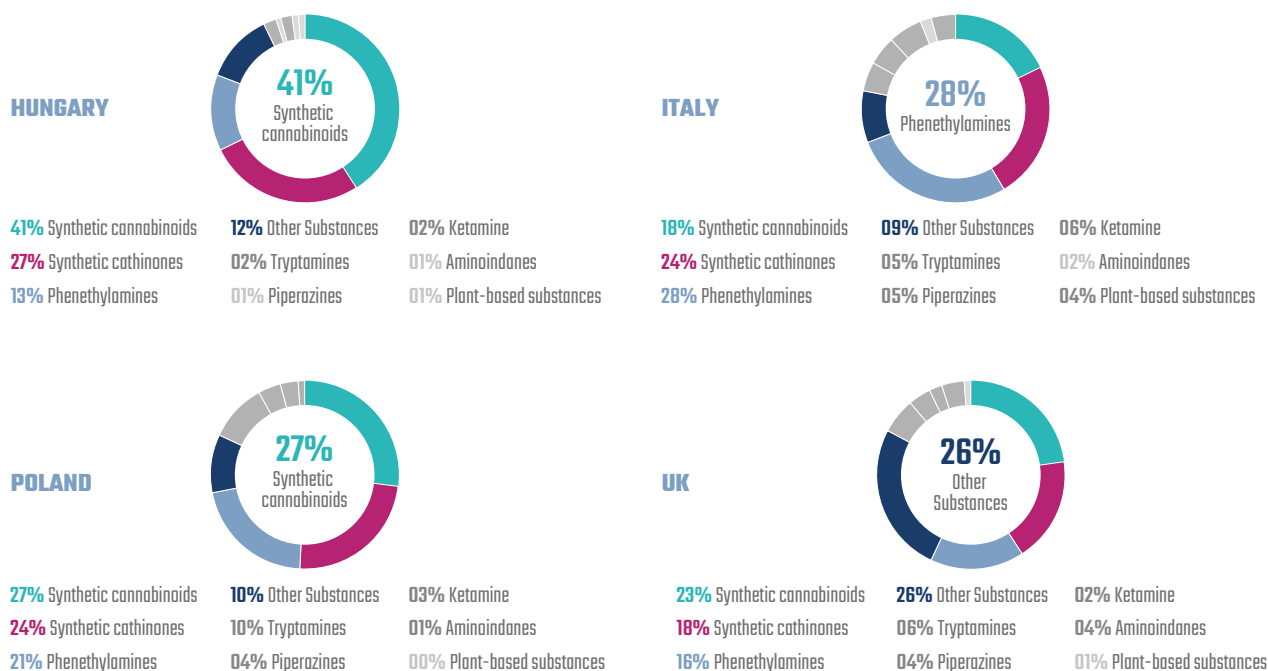
Looking at the trend in the European Countries involved in the Project (namely IT, UK, PL, HU - Fig. 3) it emerges that in Hungary and Poland, Synthetic Cannabinoids and Cathinones have been the main groups of NPS identified; In Italy, the main NPS identified are included in the Phenethylamines category (28% of total NPS identified) and Cathinones (28%), while in UK NPS included in “Other Substances” are the main group of substances identified (26%), followed by Synthetic Cannabinoids (23%).

### 02. NUMBER OF NPS FORMALLY NOTIFIED FOR THE FIRST TIME EACH YEAR (LINE, RIGHT AXIS) AND TOTAL NUMBER OF NPS MONITORED BY THE EU EARLY WARNING SYSTEM; EMCDDA-EUROPOL REPORT (2016)



## 03. NPS IDENTIFIED FROM 2013 TO 2015 IN HUNGARY, ITALY, POLAND, UNITED KINGDOM.

Source: RiSSC analysis of data from UNODC Alert System



According to UNODC, the NPS with an established presence in the market are Ketamine, Khat, JWH-018, Mephedrone and Methylone.<sup>13</sup> These substances can be considered 'old' NPS compared to 'new' NPS, which are transient in nature and have been reported by a smaller number of countries in recent years. In 2015, 75 new substances have been reported to the UNODC Early Warning Advisory System: 21 belong to the group of Synthetic Cannabinoids, 20 belong to the group of Synthetic Cathinones and 21 are included in "OTHER SUBSTANCES" which mainly include Synthetic Opioids and sedatives. These "New" NPS are for the most part derivatives of previously reported substances whose molecular structure has been slightly modified.

New NPS identified in 2015 are for the first time coming from 23 different Countries: Belgium, Bosnia and Herzegovina, Canada, Croatia, Denmark, Estonia, Finland, France (11), Germany, Hungary (14), Ireland, Italy (1), Japan, Latvia, Netherlands, Poland (9), Portugal, Slovenia, Spain, Sweden (20), Turkey, UK (15), United States. So, new NPS comes mainly

from European Countries: mostly from Sweden (20), Hungary (16), UK (15), and France (11).

The 98 NPS notified for the first time in 2015 by the EU Early Warning System (EMCDDA-Europol, 2016) are: 26 Cathinones, 24 Synthetic Cannabinoids, 9 new Phenethylamines, 6 Piperidines and Pyrrolidines, 5 Benzodiazepines, 4 Arylalkylamines, 4 Opioids, 3 Piperazines, 3 Tryptamines, 2 Arylcyclohexylamines and 12 new other substances not included in these groups (EMCDDA-Europol, 2016).

This data suggests that Synthetic Cathinones continue to increase on the market, and looking at NPS by their effects, it appears that the stimulant NPS category (such as Cathinones, Piperadines and Pyrrolidines and some Arylalkylamines) is constantly growing. At the same time, data about sedative substances such as Synthetic Opioids and Benzodiazepines can confirm the idea that has persisted over the last few that there is a co-abuse demand for Opioids and Benzodiazepines in people on opioid-substitution therapy.<sup>14</sup>

<sup>10</sup> UNODC, Global Smart Report, Post-UNGASS 2016: NPS trends, challenges and recommendations, 2016. Available at [www.unodc.org](http://www.unodc.org), p. 6.

<sup>11</sup> UNODC, Global Smart Report, Post-UNGASS 2016: NPS trends, challenges and recommendations, 2016. Available at [www.unodc.org](http://www.unodc.org), p. 6.

<sup>12</sup> UNODC, Global Smart Report, Post-UNGASS 2016: NPS trends, challenges and recommendations, 2016. Available at [www.unodc.org](http://www.unodc.org). UNODC underline that data on 2015 are incomplete.

<sup>13</sup> EMCDDA–Europol, 2015 Annual Report on the implementation of Council Decision 2005/387/JHA, 2016. Available at [www.emcdda.europa.eu](http://www.emcdda.europa.eu)

<sup>14</sup> UNODC, World Drug Report, 2016, p. 57. Available at <http://www.unodc.org/wdr2016/>

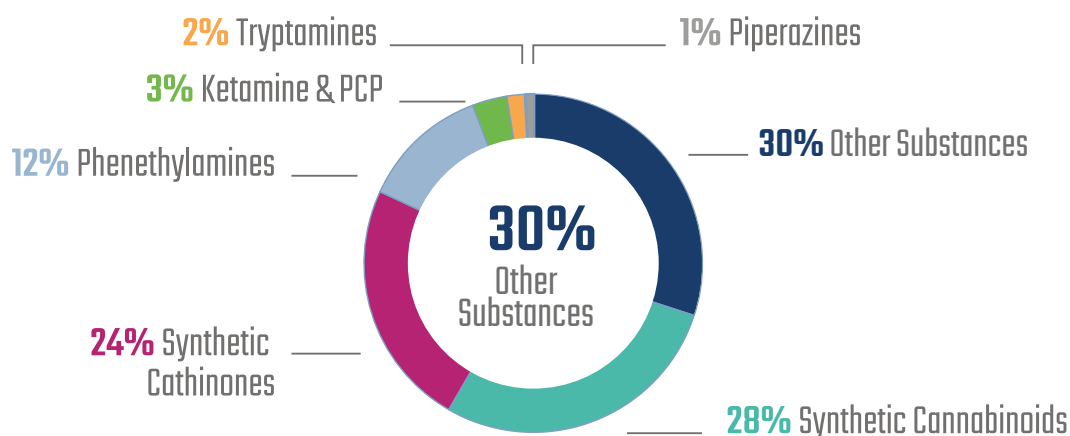
The figure below shows the percentage of New NPS identified in Europe in 2015 for the first time: a high percentage of NPS are classified by UNDOC as “Other Substances”, these are mainly sedatives and opioids; 28.5% are included in the Synthetic Cannabinoids group and 23.6% are Synthetic Cathinones followed by Phenethylamines (12.2%), Ketamine and Phencyclidine-type substances (3.3%).

Another important aspect emerging from the last update of the UNODC Smart Programme (UNODC SMART, 2016) concerns the fact that, in recent years, products containing combinations of NPS and illicit drugs are appearing on the market: “Mixtures have been found to contain controlled substances such as cocaine, MDMA and amphetamine or various NPS of the same group (e.g. synthetic cannabinoids) or across diverse NPS groups. In 2013, Europe reported more than 110 NPS products that combined up to seven different NPS” (UNODC Smart, 2016, p. 6).

Data from Early Warning Systems help to delineate the landscape of the NPS market among different Countries, even if, in reading and explaining these contexts, it is important to take into consideration that this data is influenced by the process of investigation, control and recognition of NPS among European Countries that are fragmented and non homogeneous.<sup>15</sup> Nevertheless, as it will be shown below, the crossing of data from Early Warning Systems with data available about the NPS use may suggest hypotheses and questions about NPS market.

#### 04. NPS IDENTIFIED FOR THE FIRST TIME IN EUROPE IN 2015 (%)

Source: RiSSC analysis of data from UNODC Alert System



<sup>15</sup> See. M. Mignone, O. Ingrassi, Recognizing and Identifying New Psychoactive Substances for Enforcement and Forensic Purposes: Challenges and Practices in Europe, Research report EPS NPS Project, 2016, RiSSC. Available at <http://www.npsProject.eu/>

# THE DEMAND OF NPS

## PREVALENCE OF NPS USE AND SOCIO-DEMOGRAPHIC CHARACTERISTICS OF USERS, WITH SPECIFIC REGARDS TO THE PARTICIPATING COUNTRIES (IT, UK, PL, HU)

Data available from different studies and surveys carried out globally indicate diverse trends and continue to show low prevalence in NPS use. In the last few years, many (online) surveys have been carried out in order to achieve a better understanding of the characteristics of NPS users. Although these surveys can't be considered statistically representative of the population, they do provide important inputs also on the patterns of NPS use.

At an **international level**, The Global Drug Survey 2016 has collected information among from 93.196 people across 23 Countries.<sup>16</sup> Among this sample **4.8% respondents declared to have used NPS in the last year** (in 2015 was 4.2%).

At **European level** an evaluation of the prevalence of NPS use among young people is provided by The Flash Eurobarometer n. 401 report dates back to 2014 (Flash Eurobarometer, 2014)<sup>17</sup> and shows that among young people aged between 15 - 24 resident

in one of the EU Member States, **8% of the sample** had used one or more of the New Psychoactive Substances **in their lifetime**, and **3% of them in the last year**.

The latest report from the Espad Study carried out a European Level and published in September 2016 (Espad, 2016)<sup>18</sup>, shows a prevalence of NPS use in the lifetimes of 4% of the respondents.

In 2014, I-Trend study (I-Trend Study, 2016)<sup>19</sup> carried out a survey among 2,323 NPS users from Poland (1,355 respondents), France (536), Netherlands (266) and the Czech Republic (1665). Data recorded the use of NPS by the **52% of the sample**.<sup>20</sup>

In the **United Kingdom**, the 2015/16 Crime Survey for England and Wales (CSEW 2015/2016)<sup>21</sup> has determined that the prevalence of NPS use among adults aged 16 to 59 is generally low, compared with the prevalence of well-established drugs such as cannabis, powder cocaine and ecstasy. In fact, only **2.7% of people aged between 16 and 59 have**

<sup>16</sup> A.R Winstock et al, GDS2016 Summary Report: key global findings from Global Drug Survey 2016. Available at [www.globaldrugsurvey.org](http://www.globaldrugsurvey.org).

<sup>17</sup> TNS Political & Social, Flash Eurobarometer. Young people and Drugs – N. 401, 2014. Available at: [http://ec.europa.eu/public\\_opinion/archives/flash\\_arch\\_404\\_391\\_en.htm](http://ec.europa.eu/public_opinion/archives/flash_arch_404_391_en.htm).

<sup>18</sup> ESPAD Group, ESPAD Report 2015 Results from the European School Survey Project on Alcohol and Other Drugs, 2016. Available at [www.ESPAD.org](http://www.ESPAD.org).

<sup>19</sup> A. Malczewski et al, I-Trend Study Online survey for people who use New Psychoactive Substances, I-Trend study - OEFDT, 2016.

<sup>20</sup> Respondents of the survey were mostly male (71.9% of the sample) and 72.5% respondents were aged between 15 - 24. The average age of Polish respondents was 20.2 years; of French respondents 28.1; it is 25.6 for Dutch respondents and 24.3 for Czech people. The average age for the total sample is 24.5 years. 37.1% of respondents have a matriculation certificate, 16% Lower tertiary certificate, 16% a Higher tertiary certificate. The sample is represented mostly by students (50.2%) and employees (23%).

<sup>21</sup> Home Office, Drug misuse: Findings from the 2015/16 Crime Survey for England and Wales. Available at: [www.gov.uk](http://www.gov.uk).



**used NPS in their lifetime**<sup>22</sup>. Prevalence of NPS use increases if the younger population is considered: 6% of people aged between 16 and 24 has used NPS (8% male and 3.9% female).

Prevalence of **NPS use in the last year is shown as consisting of the following percentages**: 0.7% for people aged between 16 and 59 (1.1% are male, 0.4% female) and 2.6% among people from 16 to 24 years old (3.6% of male population, 1.1% of female population) (CSEW 2015/2016).

In 2014, an English online survey on legal highs was carried out among 1,171 respondents from England, Wales, Scotland and Northern Ireland (Russel, 2014): 468 of them declared to be NPS users. The other 704 declared they had never used NPS. This survey confirms that NPS users are young: 51% of NPS-users are aged between 18 and 25, 49% are over 25, while 37% of non-NPS users are between 18 and 25 and 63% are older. Also in this survey appears that NPS users are mostly male (58% of NPS users).

In **Italy**, in 2015, the research by the European School Survey Project on Alcohol and Other Drugs (ESPAD Italia, 2015) recorded the use of NPS in the last 12 months as being by 3.1% of students aged between 15 and 19. **The latest report** from the ESPAD Study carried out at European Level in 2016 shows a prevalence of lifetime NPS use in 6% (ESPAD, 2016) of the respondents.

The online survey carried out by the EPS/NPS Project in cooperation with the sostanze.info service, collected information from 90 respondents **in order to investigate the use and the knowledge level of NPS among the general population**:

- + 16.7% of respondents declared to have used NPS at least once in their lifetime;
- + 51.1% declared to know of NPS but not to have used them, and
- + 32.2% of respondents said that they don't know about and don't use NPS.

The majority of NPS users (53%) are aged between 25 and 34. Considering the whole sample of NPS users, the average age was 36 years. Most of them are employees followed by freelance professionals and students.

In **Hungary**, the data available shows a higher prevalence of NPS use among the general population than in other Countries. The 2014 National Report from the Reitox National Focal Point (EMCDDA, Hungary, 2014)<sup>26</sup> reported that, according to a survey carried out in 2013 measuring lifetime prevalence of illicit drugs used among 1.959 respondents aged between 19-64, the lifetime prevalence use of NPS was **3.8%**<sup>27</sup> The latest report from the ESPAD Study (ESPAD, 2016) shows a prevalence of NPS use in the lifetime of 4% of the respondents.

In **Poland**, the most up to date report from the ESPAD Study (ESPAD, 2016) shows a prevalence of NPS use in the lifetime of 10% of the respondents: this is one of the highest prevalences of NPs use recorded among the European Countries.

A survey carried out in 2013 by the National Bureau for Drug Prevention (P. Jabłoński, A. Malczewski, 2014)<sup>28</sup> showed a decline in the prevalence of New Psychoactive Substances use among young people aged 18-19, compared to data recorded in 2010: in 2013 lifetime prevalence was of **5.2%** (in 2010 it was over 11,4%); last year prevalence was of **2%** (7,2% in 2010).

Another survey carried out in Poland among the population aged from 15 to 75 years in 2013 (P. Jabłoński, A. Malczewski, 2014) recorded a prevalence of lifetime NPS use of **2.2%** and a prevalence of use in the last 12 months of 0.5%.

The I-Trend study mentioned above (I-Trend, 2016) collected information **from 1,355 polish drug users**: 43% of them declared to have used NPS in his or her lifetime<sup>29</sup>.

<sup>22</sup> This data is similar to the estimate of 2.8% from the 2014/15 CSEW edition, which stated that 3.8% of male general population has used NPS in lifetime, while females were the 1.7%.

<sup>23</sup> C. Russel, (2014) The legal high national survey 2014. Findings from the legal high national survey. Available at: [www.drugmisuseresearch.org](http://www.drugmisuseresearch.org).

<sup>24</sup> S. Molinaro, National Conference of the EPS/NPS Project, Rome, 2015.

<sup>25</sup> For more information, see the chapter "The Italian case. The results from an online survey".

<sup>26</sup> EMCDDA, Reitox Focal Point, "HUNGARY" New Development, Trends, 2014. Available at [www.emcdda.eu](http://www.emcdda.eu)

<sup>27</sup> The data refers to the use of all New Psychoactive Substances excluding Synthetic Cannabinoids

<sup>28</sup> P. Jabłoński, A. Malczewski, New Psychoactive Substances. Problem and Response, National Bureau for Drug Prevention, 2014.

<sup>29</sup> Respondents to this survey were 68.9% male and 31.1% female. The 50% of NPS users was aged between 16 and 18, the average age was 20.2 years. 48% had a Matriculation certificate (end of secondary education). Given the young age of respondents most of them are High School students (55.4%) mainly coming from big cities (48% of respondents).<sup>22</sup> This data is similar to the estimate of 2.8% from the 2014/15 CSEW.



The figure below shows the data available regarding the prevalence of the use of NPS of respondents in the last 12 months prior to their taking the survey and compiled from a selection of studies and national surveys.

#### 05. LAST YEAR PREVALENCE OF NPS USE



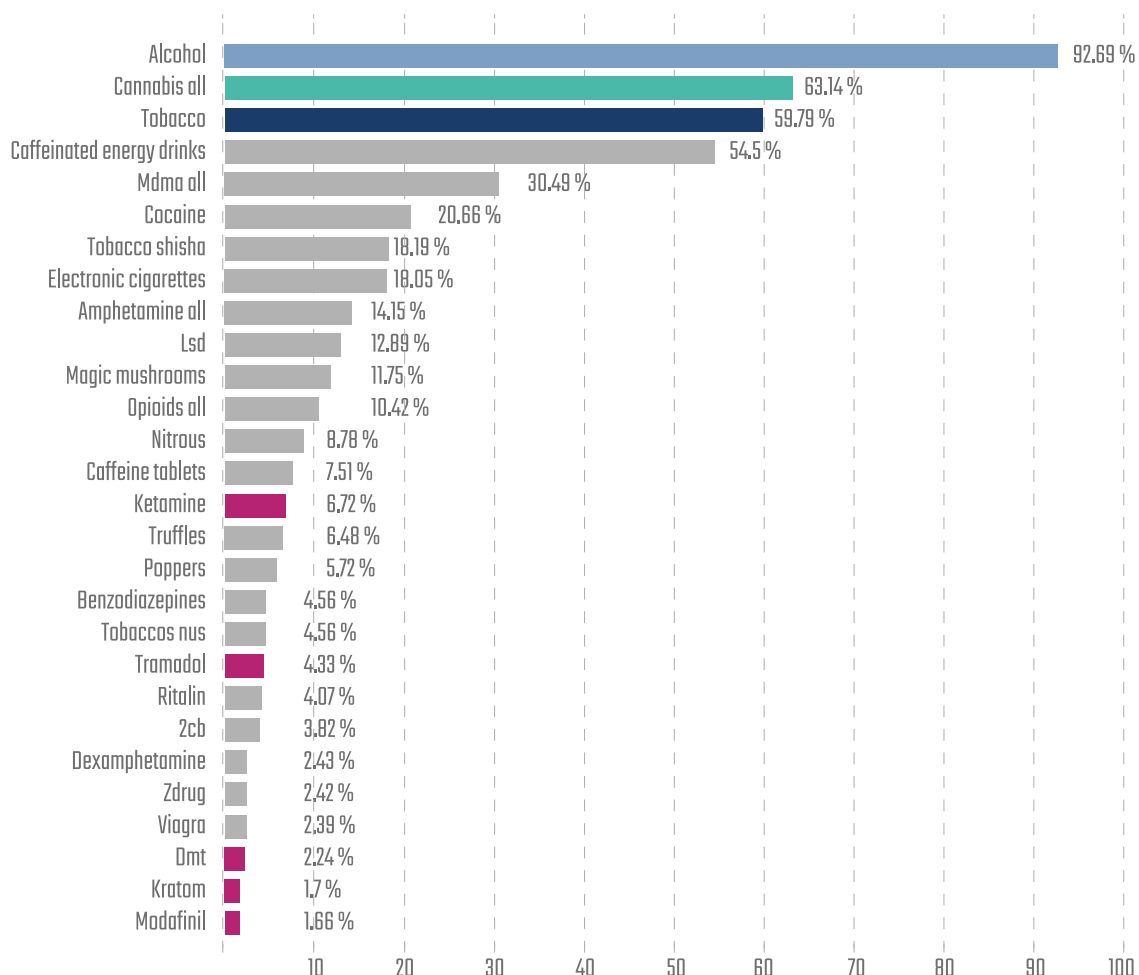
### DATA ON PREVALENCE USE OF SPECIFIC NPS

Data on the use of specific NPS are provided by national surveys in different countries. The main substances recorded from these studies are Synthetic Cannabinoids, Ketamine and Mephedrone.

The Global Drug Survey 2016 (GDS, 2016) provides an insight on substances used by the respondents. The NPS reported in the figure below are: + Modafinil, used by the 1.66% of the sample; + Kratom, used by 1.7% + Dmt (2.24%) + Tramadol (4.33%) + Ketamine (6.72%)

#### 06. % OF GLOBAL SAMPLE REPORTING USE OF DIFFERENT DRUGS IN LAST 12 MONTHS,

Source: [www.globaldrugsurvey.org](http://www.globaldrugsurvey.org)



The Global Drug Survey 2016, moreover, reports that 1.5% of the sample used **Synthetic Cannabinoids** in the last 12 months and 8.9% had used it in their lifetime. According to the authors of the Global Drug Survey, the use of Synthetic Cannabinoids seems to have been decreasing in the last few years (GDS, 2016).

This data seems to be confirmed in the **United States**, where, according to the national survey on drug use among teenagers, "Monitoring the Future"<sup>30</sup>, the prevalence of past-year use of Synthetic Cannabinoids among twelfth-grade students decreased from 11.4 per cent in 2011 to 5.2 per cent in 2015, while the use of "**bath salts**" among students aged 17-18 remained stable at 1% in 2015.

Also in **Europe**, national surveys in each country report low levels of the use of **Synthetic Cannabinoids**. This is for example the case of the Spain, where a survey carried out in 2013 among people aged from 15- to 64 recorded a 0.5 % lifetime use and 0.1 % of use in the last year, or in France where in 2014 a survey of adults from 18 to 64 years old showed a lifetime use of 1.7 %. and 4.0 % among people aged between 18- to 34 (EMCDDA, 2016)<sup>31</sup>.

According the EMCDDA, moreover, the use of **Synthetic Opioids** is increasing in European Countries, where in 18 of them, in 2014, more than 10 % of all opioid clients entering specialised services presented for problems primarily related to opioids other than heroin<sup>32</sup>.

The I-Trend survey (I-Trend, 2016) cited the ten most used NPS in the year leading up to the survey being taken. The substances cited by 373 respondents are recorded as follows: 28% used Phenethylamines, 11.4% Cathinones, 10% Arylcyclohexylamines; 8.9% Synthetic Cannabinoids; 6.2% Tryptamines, 4.6%

Piperidines; 3.4% Opioids; and 12.4% didn't know what they had consumed.

In the **United Kingdom**, the Crime Survey of England and Wales provides yearly data on the use of specific NPS. In 2015 (CSEW, 2015/2015), it found out that 0.06 per cent of adults aged 16 to 59 had used **khat** in the last year. However, this data could be underestimated since the use of this substance is concentrated among individuals of specific national origins, often not reached by national surveys. Moreover, Ketamine use over the previous year among people between 16 to 59 years old has shifted from 0.5% to 0.3%; among younger people aged between 16 and 24 it fell from 1.6% in 2015 to 1% in 2016. Last year, also Mephedrone use has seen a decrease: from the prevalence in 2015 of 0.5% in the general population (16 to 59 years old) to 0.3%; in 16-24 year old people it moved from 1.9% to 0.9%. The 'last prevalence use among the general population of Synthetic Cannabinoids was recorded in a 2011/2012 in a survey showing a percentage of use of 0.2.

The online survey carried out in 2014 (Russel, 2014)<sup>23</sup> showed that the main NPS used were Synthetic Cannabinoids (used by 32% of users), Stimulant NPS (18%) and Psychedelic NPS (18%).

In **Italy**, the ESPAD Study in 2015 (ESPAD Study 2016)<sup>33</sup> recorded the lifetime use of Synthetic Cannabinoids (Spice) among the 15% of students; of Mephedrone among 1% and Ketamine among 1.6%.

According to the online survey carried out within the EPS/NPS Project, 66.7% of respondents declared the use of Ketamine, 26.7% of Synthetic Opioids and 20% of **Synthetic Cannabinoids**, while Synthetic Cathinones don't seem to have been used at all by the respondents.

<sup>30</sup> Lloyd D. Johnston, and others, Monitoring the Future National Survey Results on Drug Use: 1975-2015 – Overview, Key Findings on Adolescent Drug Use (Ann Arbor, Institute for Social Research, University of Michigan, 2016), in UNODC (2016), World Drug Report 2016, [www.unodc.org/wdr2016/](http://www.unodc.org/wdr2016/).

<sup>31</sup> EMCDDA, European Drug Report 2016. Trends and Developments, 2016. Available at [www.emcdda.eu](http://www.emcdda.eu).

<sup>32</sup> EMCDDA, European Drug Report 2016. Trends and Developments, 2016. Available at [www.emcdda.eu](http://www.emcdda.eu).

<sup>33</sup> Preliminary data from the Italy ESPAD Study were provided during the focus group held in Milan in April 2016.

Recent information from the drug-checking service implemented in the last year in Italy<sup>34</sup> shows that many types of Phenethylamines are sold and used during raves and free parties instead of LSD. This aspect is confirmed by anecdotal information collected among operators working during raves and parties (Mignone, Bosio, 2016) but no other data is available about this use.

In **Hungary**, as mentioned above, the 2014 Reitox Focal Point Report (EMCDDA, Hungary, 2014) showed that Synthetic Cannabinoids were the second most used substances by the general population from 19 to 64 years with a prevalence of lifetime use of 4.4% and among the group aged 19-34 years old its prevalence of use was of 7.7%.

National data collected from 2,315 clients of organisations running needle/syringe programmes (NSP) in 2013 (EMCDDA, Hungary, 2014) showed that in the group “Other substances” (so excluded Heroin, Cocaine and Amphetamine), “Crystal” (probably Pentadone) was the primary injected drug used by 63% of clients. Information collected in 2014 among 1,529 clients of the needle exchange program of the Blue Point Drug Counseling and Outpatient Center located in Budapest, 30% of users were under 25 years, 33% between 25-34 years, and 37% above 35. Data shows that since 2010 the injection of traditional drugs such as heroine and amphetamines have been gradually replaced by NPS<sup>35</sup>. Also in 2014, old and new clients of this service took part in a short face-to-face survey which was put to 167 respondents (mean age 33.8 years), of which 31.1% was composed of females, and 68.9% by males<sup>36</sup>. The most often mentioned primarily injected drugs were pentadone (n = 80, 48%), “music” (a drug whose contents is still unknown – n = 38, 23%, maybe para-

methyl-4-methylaminorex), and “anything that I can get my hands on” (n = 18, 11%), MDPV 3% heroin by 1.8%).

In **Poland**, the I-Trend Study (I-Trend, 2016) reported the lifetime use of ketamine among 7% of Polish respondents and of **herbal extracts (Salvia, Kratom)** among 16.2% participants.

As described in the 2014 National Report on New Psychoactive Substances (P. Jabłoński, A. Malczewski, 2014)<sup>37</sup>, the highest rate of NPS prevalence was recorded among low-threshold programme clients in 2014: 36% of the survey participants had reported using Mephedrone in the last 30 days and it emerges that almost half of the respondents (47%) reported using Cathinone. Among the people who injected drugs in the month previous to the study, 60% reported using NPS.

## USER PROFILING: CONTEXTS AND MOTIVATIONS OF USE

Surveys and Studies carried out in the last few years show different contexts and motivations of NPS use among countries and territories.

At **European level**, the Flash Eurobarometer 2014 “Youth and Drugs”<sup>38</sup> (Flash Eurobarometer, 2014) shows that 65% of NPS users took NPS during a party or an event, 60% in other contexts in presence of their friends, 15% in private contexts, 9% during their daily activities, while working or studying. Also according the I-Trend Study carried out in 2014 45% of NPS users take substances with friends in pubs, discos or other outside contexts, 31.9% take substances with friends at home, 12.7% alone at home and 2.9% at school or work.

<sup>34</sup> Starting from April 2016 within the European Project “BAONPS”, a drug checking service has been implemented in Italy. On the Project website drug checking results and alerts on new drugs emerging are periodically provided. More information available at [www.coopalice.net/baonps](http://www.coopalice.net/baonps).

<sup>35</sup> J. Racz, et al., Veni, vidi, vici: The appearance and dominance of New Psychoactive Substances among new participants at the largest needle exchange program in Hungary between 2006 and 2014, *Drug and Alcohol Dependence*, 158 (2016), pp. 154-158

<sup>36</sup> J. Racz, et al., New cases of HIV among people who inject drugs in Hungary: False alarm or early warning? *International Journal of Drug Policy*, 27 (2016), pp. 13-16

<sup>37</sup> P. Jabłoński, A. Malczewski, *New Psychoactive Substances. Problems and Response*, National Bureau for Drug Prevention, Warsaw, 2014.

<sup>38</sup> “TNS Political & Social, Flash Eurobarometer. Young people and Drugs – N. 401, 2014. Available at: [http://ec.europa.eu/public\\_opinion/archives/flash\\_arch\\_404\\_391\\_en.htm](http://ec.europa.eu/public_opinion/archives/flash_arch_404_391_en.htm).”

Given the contexts of NPS the main motivations are linked to the desire to bond with others, to socialize and to get high (respectively 53% and 52%). The second highest motivation is linked to the desire to modify perception (47%) the fourth to relax. (35%)

In the **United Kingdom**, according to the available data, people use NPS mainly in the recreational nightlife scene and music festivals: the CSEW 2015/2016, shows that people who had visited a nightclub or disco in the last month were significantly statistically more likely to have used an NPS in the last year than those who had not. The subgroups with more frequent nightclub visits in the last month had a higher prevalence of NPS use in the last year. So NPS users look for substances that facilitate socialisation and help them to stay awake during the night.

According to experts<sup>39</sup>, there is also evidence that there are high levels of traditional illicit drugs and NPS are used to enhance sexual performance. This seems to be mostly widespread among men who have sex with men and who are looking for substances to facilitate or enhance sexual performance. This often involves group sex or people with a high number of sexual partners. This phenomenon has been termed as 'chem sex'. Typically, the drugs used are Crystal methamphetamine, Mephedrone and GHB/GBL, with Crystal methamphetamine and Mephedrone being injected, and GHB/GBL being taken orally (Home Office, 2014a)<sup>40</sup>. Some studies<sup>41</sup> underline that the use of Crystal methamphetamine by men who have sex with men has been a significant phenomenon in the United States and Australia for almost 20 years, while in UK it has become a public health concern since 2014. These studies have collected information among people who have access to harm reduction services, and underline that there is a lack of capacity to respond by the health service to the use of drugs in sexual settings concerning the gay male population.

Moreover, these studies underline that the data available is still very limited regarding the socio-demographic characteristics of this population.

Moreover, some of the data from drug treatment workers (Home Office, 2014a) shows that in the UK the injection of Mephedrone is sometimes strictly connected to more marginalized contexts of ex-heroin or crack users. These users seem to inject Mephedrone because of a scarcity of their preferred drug, therefore this behaviour may be more common in non-urban areas where drug supplies are intermittent.

A Study from the UK Home Office (Home Office, 2014b)<sup>42</sup>, outlines that in UK NPS are often also used in order to modify perceptions and to experiment/explore new states of mind. This is the case of the so-called psychonauts, the term used to describe people who experiment with psychoactive drugs; specific demographic information about this group are not available, but it seems that the defining characteristics of this group are not demographic characteristics, but rather a shared set of values and beliefs.

In **Italy**, information available on NPS users shows that NPS use is mainly connected to the recreational nightlife scene<sup>43</sup>. NPS users look for substances that facilitate socialization and help them to keep awake during the night. NPS are mostly used during Raves: Ketamine, Methoxetamine, Phenethylamines, Tryptamines, while the NPS mostly used in clubs are Ketamine, Salvia divinorum, GHB, Mephedrone.

Data about the main contexts of NPS from the online survey carried out among Italian users<sup>44</sup> are in line with results of other surveys: 93% of respondents declare to use NPS during parties, raves and concerts; 60% outdoors and 60% in a friend's house. But figures also emerge for individual use, at work or at school (20%). It derives that the main motivations are "To have fun with friends" (73%) and "To get high"

<sup>39</sup> Information from the focus group held in Milan on April 2016.

<sup>40</sup> Home Office, New Psychoactive. New Psychoactive Substances in England A review of the evidence, 2014. Available at [www.gov.uk](http://www.gov.uk)

<sup>41</sup> See A. Bourne et al., "Chemsex" and harm reduction needs among gay men in South London, *International Journal of Drug Policy*, 26 (2015), pp. 1171-1176 and G.J. Melendez-Torres, Predictors of crystal methamphetamine use in a community-based sample of UK men who have sex with men, *International Journal of Drug Policy*, 36 (2016), pp. 43-46

<sup>42</sup> Home Office, New Psychoactive. New Psychoactive Substances in England A review of the evidence, 2014. Available at [www.gov.uk](http://www.gov.uk)

<sup>43</sup> Cf. M. Mignone, E. Bosio, Criminological analysis of the NPS market, 2016. The demand for NPS. Available at [www.npsProject.eu](http://www.npsProject.eu)

<sup>44</sup> See Part II of this report.

(53%). It is interesting also the emerging use of NPS to be better at school or at work (20%).

In **Hungary**, as mentioned above, studies and surveys on NPS users don't provide information about the use of NPS in recreational contexts. NPS users seem to be mostly people coming from marginalized contexts, inhabitants with low economic backgrounds and dense drug injecting user communities. So people who use drugs heavily seem to be the main NPS users.

A netnography study carried out by the Faculty of Education and Psychology of Eötvös Loránd University within the EPS/NPS Project<sup>45</sup> intended to collect information on psychonauts as a specific group of people using NPS and other drugs to reach a special state of mind or body. According to the authors this group of users are more interested in the experiences facilitated by the substances than in the actual substances themselves. The main NPS used are: DMT, magic mushrooms, 'Kratom. Passion Flower, Hops, Spice, Kratom. Beside NPS other drugs emerging are: cannabis, MDMA or ecstasy pills, Batman' (extasy with hallucinogenic effect),

opiates, pharmaceuticals (Tilidin, Tramadol), Flakka, Acetylphenatyl.

In **Poland**<sup>46</sup>, different contexts and motivations for NPS use are emerging. The main context referred to is the **recreational** one: this hypothesis is confirmed by data from the I-Trend study that shows that most young NPS users take them with friends: 35% outside, 11.7% inside clubs, parties or pubs, and 29.9% at home. In this context, people use NPS mainly to socialize and to get high, as confirmed by data that shows the percentages of respectively 61.7% and 54.7%. Among this survey other motivations recorded high percentages among Polish respondents: these were linked to the need to relax (42.3%) and to modify perceptions (41.6%). This last motivation, according to the I-Trend authors is linked to the use of NPS by psychonauts, usually using at home, in order to test drugs.

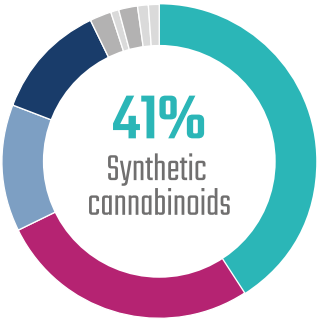
**As for the United Kingdom and Hungary, experts from the National Reitox Focal who took part in the focus group specified that NPS in Poland are also used in more marginalized contexts by heavy users of other illicit drugs and injection drug users who are using mostly Synthetic Cathinones. Comparison of data among the Participating Countries.**

<sup>45</sup> Results of this study are presented in the Study carried out within EPS/NPS Project.

<sup>46</sup> Results from the EPS/NPS focus group carried out in Milan, in April 2016.

In **Hungary**, Synthetic Cannabinoids are the main NPS circulating and used by the Hungarian population, followed by Synthetic Cathinones. These substances are mainly used by **injection drug users** coming from marginalized contexts. The low prevalence of Phenethylamines suggests the idea that recreational users of NPS may be still limited in this Country, but this hypothesis should be confirmed by further data.

07. TABLE HUNGARY



41% Synthetic cannabinoids	01% Piperazines
27% Synthetic cathinones	02% Ketamine
13% Phenethylamines	01% Aminoindanes
12% Other Substances	01% Plant-based substances
02% Tryptamines	

PREVALENCE DATA

**Synthetic Cannabinoids** are the second substances used in general population from 19 to 64 years with a prevalence of lifetime use of **4.4%**; among the group aged from 19-34 its prevalence use was of **7.7%**.

The most illicit drug used is Cannabis.

“Crystal” (probably Pentedrone) is the primary injected drug used by 63% of clients (in 2014).

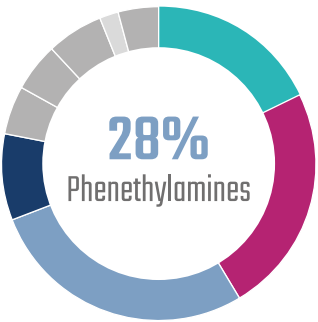
Since 2010 heroine and amphetamines have been gradually replaced by NPS.

MAIN USERS PROFILE

Injection drug users.

In **Italy**, the high percentage of Phenethylamines identified is of particular interest because these substances have only been recorded by drug-checking services active at a national level. In fact, no official data on Phenethylamine use are available from surveys on the general population or from the Health Services. Given the characteristics of these substances and their effects, their presence in Italy can confirm that the main NPS user profile is recreational. More surprising is the high percentage of Synthetic Cathinones identified, since the limited data available shows a low level of use. This suggests that Synthetic Cathinones may be being used by people not usually reached by national surveys or by Health Services.

08. TABLE ITALY



18% Synthetic cannabinoids	09% Other Substances	06% Ketamine
24% Synthetic cathinones	05% Tryptamines	02% Aminoindanes
28% Phenethylamines	05% Piperazines	04% Plant-based substances

PREVALENCE DATA

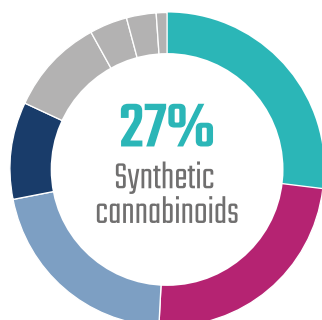
In **Italy**, the Espad Study in 2015 (Espad Study 2016) recorded the lifetime use of Synthetic Cannabinoids (Spice) among the 15% of students; of Mephedrone among the 1%, Ketamine among the 1.6%.

MAIN USERS PROFILE

Recreational users.

In **Poland**, the main substances identified are Synthetic Cannabinoids. As for other countries, further investigations would be needed to prove the use of these substances among the general population; the hypothesis is that these substances are contained in products made of a mix of different compounds, often unknown to users. As for Hungary, the high prevalence of Synthetic Cathinones, can confirm the consistent presence of **injection Cathinones** users recorded by low-threshold programs.

09. TABLE POLAND



27% Synthetic cannabinoids

10% Other Substances

03% Ketamine

24% Synthetic cathinones

10% Tryptamines

01% Aminoindanes

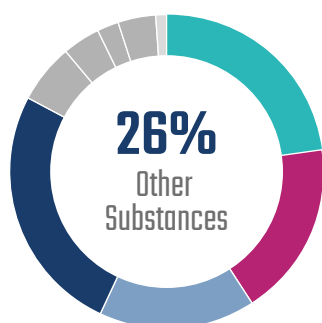
21% Phenethylamines

04% Piperazines

00% Plant-based substances

In the **United Kingdom**, the decrease in Synthetic Cathinones use seems to be confirmed in particular by data from the Early Warning Advisory System. The high percentage of "Other Substances" suggests that sedatives, NPS and opioids could be emerging and increasing on the market.

10. TABLE UNITED KINGDOM



23% Synthetic cannabinoids

26% Other Substances

02% Ketamine

18% Synthetic cathinones

06% Tryptamines

04% Aminoindanes

16% Phenethylamines

04% Piperazines

01% Plant-based substances

## PREVALENCE DATA

I-Trend Study (I-Trend, 2016) shows lifetime use of **ketamine** among 7% of Polish use and of **Herbal extracts (Salvia, Kratom)** among 16.2% participants.

36% of low-threshold programs clients used **Mephedrone**. in the last 30 days, 47% any Cathinone

## NPS USERS PROFILES

Injection drug users, Recreational users,  
Users in "chemsex settings", Psychonauts

## PREVALENCE DATA

Available data shows a low prevalence use of Khat (0.6%), of Ketamine (0.3%) among general population and Mephedrone has seen a decrease in 2015 (0.9%).

Last prevalence use recorded in 2012 showed a percentage of use of 0.2%

## NPS USERS PROFILES

Injection drug users, Recreational users,  
Users in "chemsex settings", Psychonauts.



## KNOWLEDGE AND INFORMATION ON DRUGS

The I-Trend Study (I-Trend, 2016) confirms what emerged from the Flash Erobarometer n. 402 (Flash Eurobarometer, 2014): the main source of information on drugs and on NPS is the Internet, particularly drugs forums (for 43% of respondents) followed by friends and family (34%).

But data referring to the 18% of people who declared to not need any information and of the 20% saying that they did not want to provide any information confirms what has been outlined in the preliminary Report of the Project EPS/NPS (Mignone, Bosio, 2016): in Europe, despite the increasing use of the Internet, social media and specific apps as channels of information, there is in users a lack of knowledge and awareness of the risks related to dosages and the combined use of NPS with other drugs. This aspect is mainly due to the fact that most NPS products contain unknown substances that cause unexpected effects and risks and there is a lot of confusion and inexperience regarding the correct dosages needed among users.

In **Italy**, the ESPAD Survey underlines that in young people, aged between 15 and 19, there is an emerging phenomenon of young people who take drugs without knowing what exactly they are using. Moreover, many users take NPS unintentionally because these substances, especially in Italy, are sold on the black market as traditional illicit drugs. Wrong dosages can also cause unexpected effects among experienced drug users who usually seem more aware and careful about the effects and dosages of the drugs that they take.

According to experts interviewed during the focus group held in Milan, the level of knowledge and awareness are similar to the Italian context with some specifications: in the **United Kingdom** a new generation of skilled drug users are emerging - the 'e-Psychonauts' – who have a general knowledge of the pharmaceutical/chemical properties of drugs and high levels of verbal fluency in reporting drug experiences; in Poland the I-TREND study results confirm that almost half of the NPS users did not know exactly what substance they had taken the last time they used: 25% declared to not need information on NPS and 29% reported having no information.

## MAIN WAYS OF PROCURING DRUGS

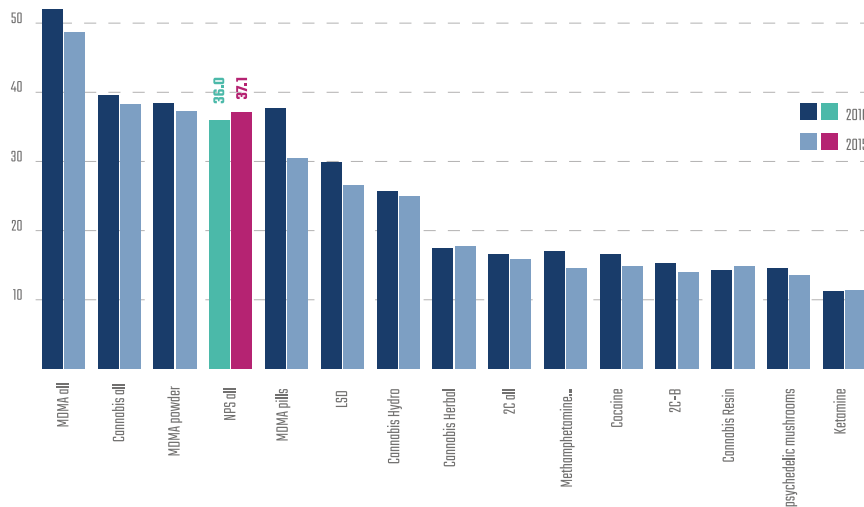
Data from the I-trend study shows a variety of different ways of procuring NPS: a high percentage of people obtain NPS for free (29.1% of respondents); 23.2% bought from a shop online; 14.7%, bought from a friend who is not a dealer and 11.7% bought from a dealer 1.2% bought from a classified ad online 1.2% bought from a shop (not online) and 6% made it themselves. Similar data are also confirmed for the four Countries involved in the Project, even if in the **United Kingdom** the Internet market seems to be more widespread than in other countries, while in **Hungary**, data from a survey carried out in 2013 shows that since 2012 the proportion of substances ordered on a website fell significantly and that the primary sources of acquisition became dealers. Results from the I-Trend study show that among 23% of people who bought online, 66.4% ordered NPS during the last 12 months and 71% did so once in the case of shops where New Psychoactive Substances were presented with branded names, 85% bought once from classified ads and 78% using the Silk Road. The main answer to why the respondent chose a particular kind of shop for getting hold of NPS, was thanks to the advice of other users (46.4%). The second important criterion of choice (43.4%) was that the shop had a good profile on the web pages where clients share their experiences (I-Trend, 2016).

So the online shopping for NPS seems to be increasing, to the point where, according to the authors of the Global Drug Survey, their easy availability on the Internet could be considered the first motivation to take NPS<sup>47</sup>. Results from this survey show that in 2016 especially, the darknet market continues to increase in some Countries such as the UK, Ireland, US and Canada and that 37% of substances bought are NPS.

<sup>47</sup> A.R Winstock et al., GDS2016 summary report: key global findings from Global Drug Survey 2016. Available at [www.globaldrugsurvey.org](http://www.globaldrugsurvey.org)



## 11. DRUG TYPES OBTAINED FROM DARKNET- GDS 2016



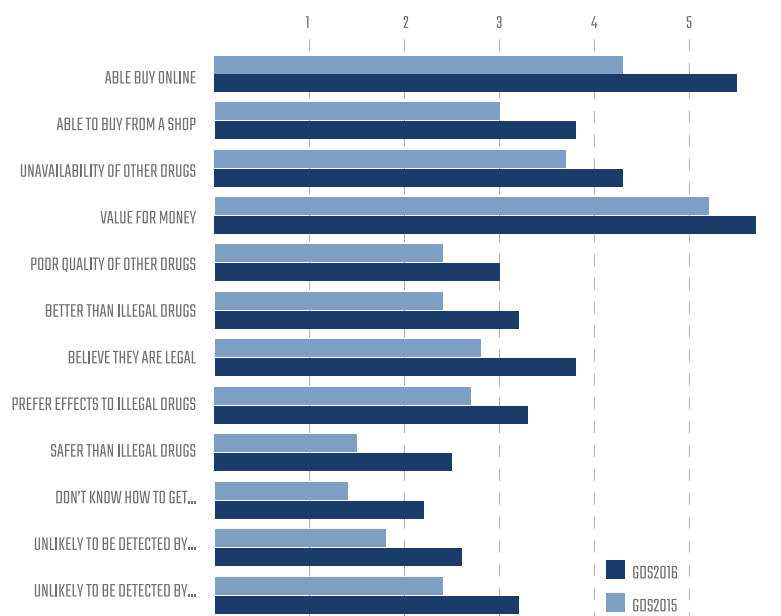
## NPS CHARACTERISTICS DRIVING THE USE

As mentioned above, results from the Global Drug Survey (GDS, 2016) show that people choose NPS mostly because of their easy availability on the Internet market. As shown in the figure below, the main factors leading to the choice of NPS are mostly linked to the characteristics of the market: the cheaper costs of NPS than others drugs and the unavailability of other drugs on the market.

So, according to the authors of the Global Drug Survey the key factors that lead to the choice of NPS instead of other illicit drugs are not lying about

the specific effects obtained from NPS or about the belief among NPS users that, being legal they are safer than other drugs. According to results from the preliminary report of the European Project EPS/ NPS (Mignone, Bosio, 2016) these last two aspects should be considered while taking into consideration some specifications: NPS are preferred to other illicit drugs when they have stimulant-like properties (such in the case of Synthetic Cathinones and some Phenethylamines). Moreover, Mephedrone users underline that they preferred this substance to other illicit drugs because a better quality was circulating on the market, in terms of reliability, chemical purity, effective potency and the absence of side effects. The fact remains that these characteristics are not true for all NPS: in fact, according the authors of the

## 12. FACTORS INFLUENCING THE CHOICE OF NPS



Global Drug Survey, the decreasing of the use of Synthetic Cannabinoids is due to the experiences of adverse effects obtained by users (GDS, 2016).

Concerning the legal status, the second aspect underlined by GDS authors, It can be supposed that the association of “legal” as “safe” can be considered true for naïve users, while for more experienced users of legal and illegal drugs the legal status of the substances doesn’t represent an important factor driving their use. However, for these more informed users, the shifting of the substance from legal to illegal status generally means the availability of a lower quantity/quality of the substance itself and higher prices.

Another feature that can influence the increase of the demand concerns the presence of the addictive properties of NPS: even if only limited information on long term problems of NPS are provided, some evidence concerning the risk of addiction related to some NPS such as Mephedrone and Synthetic Cannabinoids is emerging (Mignone, Bosio, 2016).

The main factors can be schematised as follows.

FACTORS DRIVING THE NPS USE		
Short term effects	Users’ Point of view	Stimulant-like properties <i>(especially for Phenethylamines)</i>
		Sedative effects <i>(for Opioids)</i>
		Good quality of substances in terms of reliability, chemical purity, effective potency and absence of side effects <i>(only for some NPS)</i>
Long term effects	Market’s point of view	Addictive properties <i>(especially for Synthetic Cathinones and Synthetic Cannabinoids)</i>
Legal Status	Users Point of view	Association of “legal” as “safe” for Naïve users
		Association of “legal” as “cheaper” for experienced users
Availability	Users/Market Point of view	Easy availability of NPS on Internet
		Unavailability of other illicit drugs on the market

# REMARKS

This update about the demand of NPS confirms that nowadays NPS use among the general population remains low and restricted to some specific segments of the population. In particular, the number and variety of substances identified every year from the Early Advisory Systems of NPS suggest these two considerations:

- + NPS are used in segments of the population which are not usually reached by national surveys or Health Services;
- + NPS are sold inside new products where no indication of their composition are specified.

The main NPS user profiles identified can be listed as follow:

- + Recreational users: young people aged between 15 and 24 using NPS during raves, parties and clubs or discos. This profile emerges in all four countries involved in the EPS/NPS Project, except for Hungary, where no specific data was available. A subgroup of this user profile can be considered people using in a

'ChemSex' setting, particularly within the male 'gay' community in UK.

- + Psychonauts: this is a group of skilled users, who consume NPS mostly to modify the state of mind and perception. This user profile appears in the UK and in Poland.
- + Injection drug users who are using mostly Synthetic Cathinones coming from marginalized contexts of the UK, Poland and Hungary.

Data on the prevalence of NPS use show that in the last year, the use of Synthetic Cannabinoids has decreased. It seems to be mostly due to the unexpected and adverse effects reported by users; but it must be considered that the market for these substances is flexible and always changing, so, it doesn't necessarily mean that it is definitively in crisis.

The use of Synthetic Opioids is still very low but information from NPS users and the increasing number of these substances identified, suggests that this market could develop over the next few years.

<sup>48</sup> The survey is carried out every year by the National Research Council, Institute of Clinical Physiology among a representative sample of Italian students aged between 15 and 19 ([www.epid.ifc.cnr.it](http://www.epid.ifc.cnr.it)).

# THE ITALIAN CASE.

## THE RESULTS FROM AN ONLINE SURVEY

Despite the growing attention on the NPS phenomenon, information and data concerning the demand of these substances still seem to be limited and fragmented. In Italy, the ESPAD Italia Study is the only national survey recording the use of some NPS among students. Currently no national surveys on NPS use among the general population are available in Italy.

### Objectives of the survey

From January 2016, as a part of the EPS/NPS Project activities, an online survey has been carried out in order to investigate the perception/knowledge and use of NPS among the general population, focusing the attention on some specific aspects concerning:

- + types of NPS used and known;
- + patterns of use;
- + ways of procuring NPS;
- + channels of information used.

Collecting information and data on these issues is also necessary to delineate the supply chain of these substances, since perception and knowledge of substances, drug experiences and information sharing among drug users, can influence their way of purchasing and using drugs.

### Method and time of data collection

The survey was launched on the portal **www.sostanze.info**, which is at the moment, the most important Italian website on information and help on drugs. The portal is mainly addressed to people who want to know the risks and harms related to legal and illegal psychoactive substances and to receive information about drug laws and regulations. The staff of operators responding to the questions is made up of doctors and social operators. Since its launch in 2007, the portal has counted about 7 million users, mostly from the North and the Centre of Italy. The online survey tool was adopted for some important reasons: collecting data over the Internet allowed people to be reached who are usually difficult to identify and to involve, as in the case of drug users;

anonymity facilitates the participation, so people are more willing to cooperate; finally, the respondents are free to choose where and when they want to fill in the questionnaire. These aspects should guarantee more reliable responses.

The support of **sostanze.info** was precious because it allowed people who are interested in drugs-related issues to be reached and to be more informed about NPS, as well as users.

Questionnaires were collected between January and April 2016. No sampling method was adopted for this survey, so the sample can't be considered representative of the general population.

### Information about the questionnaire

Firstly, the questionnaire investigates the use of traditional legal and illegal drugs. Then, it tries to distinguish the respondents in three groups:

- + people who declare that they know and use NPS;
- + people who say they that they know about NPS but they don't use them;
- + people who declare that they don't know anything about and don't use NPS.

Two specific and separate questionnaires for each of the first two groups of respondents were elaborated. The questions put to the first group of respondents concerned mostly the types of NPS used, frequency, contexts and motivations of use, ways of procuring substances and channels of information on drugs.

Among the second group of respondents information about the type of NPS known, the ways of getting information about them, reasons why NPS are not used and the perception about the possibility to obtain these substances in the market were collected.

Finally, the last part of the questionnaire was addressed to all respondents, included in the third group of people (those who don't know and don't use NPS), in order to collect some socio-demographic data.

### The NPS included in the survey

The questionnaire was developed around the

international definition of the “New Psychoactive Substances”, term that includes “substances of abuse, either in a pure form or a preparation, that are not controlled by the 1961 Single Convention on Narcotic Drugs or the 1971 Convention on Psychotropic Substances, but which may pose a public health threat” (Council of the European Union decision 2005/387/JHA).

This definition of NPS, which are also known as ‘legal highs’, “designer drugs”, “research chemicals” or “bath salts”, considers a lot of different substances for their effects, nature and legal status. For example,

Ketamine at the time of the survey was considered at international level an NPS, but in Italy it has been associated with other traditional drugs both for the large spread of use and for the legal status. Moreover, the legal framework surrounding NPS is complex, constantly changing, and differs between substances of the same group (for example, the group of synthetic cannabinoids includes both controlled and uncontrolled substances). The table below shows the substances the survey has asked for. They are grouped by effects and legal status.

SUBSTANCES GROUP	NAME	EFFECTS	LEGAL STATUS IN ITALY
Ketamine & Phencyclidinetype substances	Ketamine	Dissociatives	Controlled Since 8/02/2001
	Methoxetamine		Not Controlled
Synthetic Cannabinoids	5FADBICA	Cannabinoids	Not Controlled
	AM694		Controlled since 29/12/2011
	JWH018		Controlled Since 24/10/2012
	JWH019		Not Controlled
	WIN48098		Not Controlled
Synthetic Cathinones	3MMC	Stimulants	Not Controlled
	4MEC		Controlled since 11/06/2012
	MDPV		Controlled since 16/05/2011
	MEPHEDRONE (4-MMC)		Controlled since 1662010
	PENTEDRONE		Controlled since 11/06/2012
Phenethylamines	25BNBOMe	Psychedelics	Controlled Since 19/2/2016
	25CNBOMe		Controlled Since 19/2/2016
	25HNBOMe		Not Controlled
	2CI		Controlled since 07/03/2005
	5APB		Controlled Since 25/06/2013
Synthetic opioids	Propoxyphene	Sedatives	Not controlled
	Demerol		Not Controlled
Inhalants	Popper	Stimulants	Not controlled
Psilocybin Mushrooms	Psychedelic Mushrooms	Psychedelics	Controlled
GHB, GBL		Sedatives	Not controlled
Plant Based Substances	Salvia Divinorum	Dissociatives/Atypical Psychedelic	Not Controlled
Anabolic Agents	Metadrol	Stimulants	Not Controlled
	Nandrolone		Contolled since 11/06/2010
Diet Pills	Food supplements that contain New Psychoactive Substances		

Shaboo (methamphetamine hydrochloride) was also investigated, although it is not properly an NPS. However, its use increased considerably in the last few years, in Italy, and the mass media often pay great attention to it.

# RESPONDENTS' SOCIO-DEMOGRAPHIC CHARACTERISTICS

The sample is composed of 90 respondents. Out of these, 44 respondents are female, 45 are male. Respondents are mainly aged between **25-44 years old**; the average age is **35**.

Most respondents (43.8%) live in **Northern Italy** and are students (29%) and employees (26%). The number of people declaring to be unemployed (12%) or independent workers (11%) is also of relevance.

FIG. 1. RESPONDENTS BY SEX

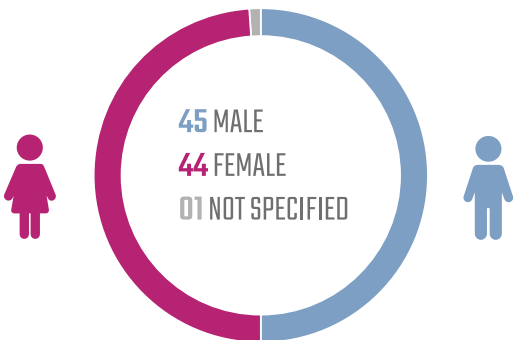


FIG. 2. RESPONDENTS BY AGE GROUP

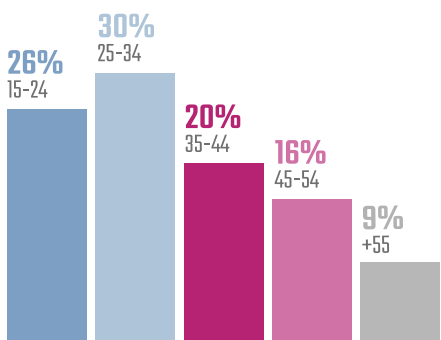


FIG. 3. RESPONDENTS BY RESIDENCE

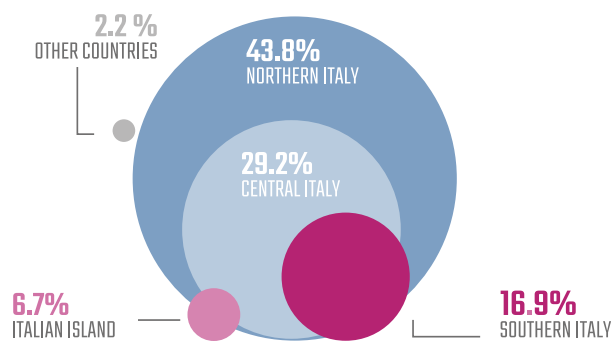
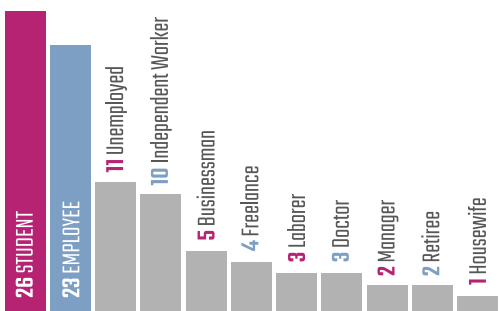


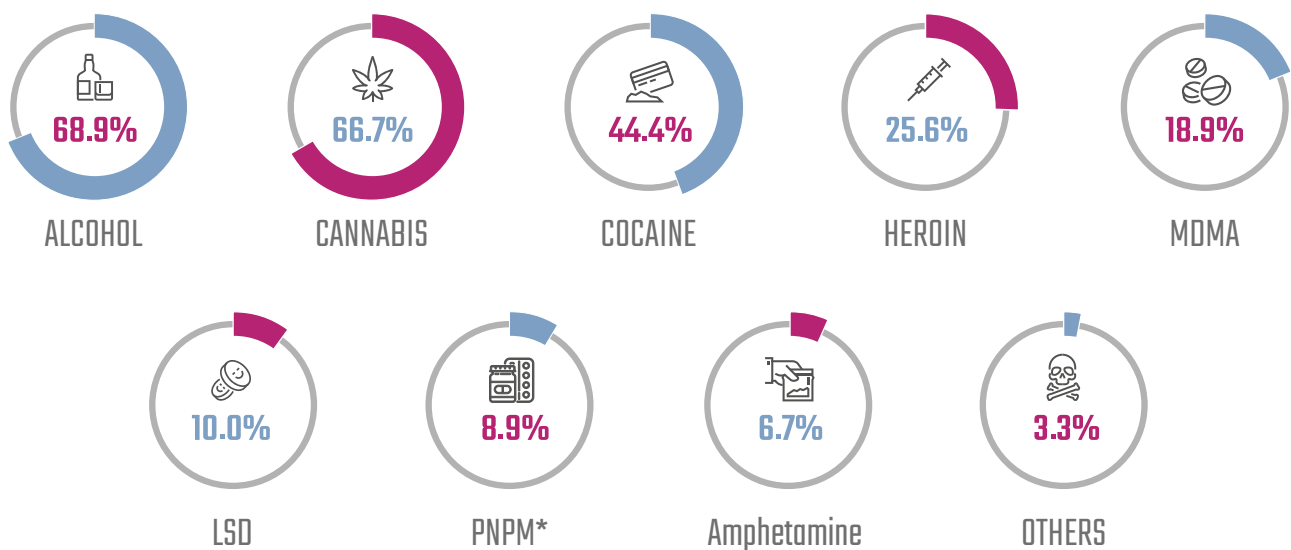
FIG. 4. RESPONDENTS BY JOB



## PSYCHOACTIVE SUBSTANCES USED BY THE RESPONDENTS

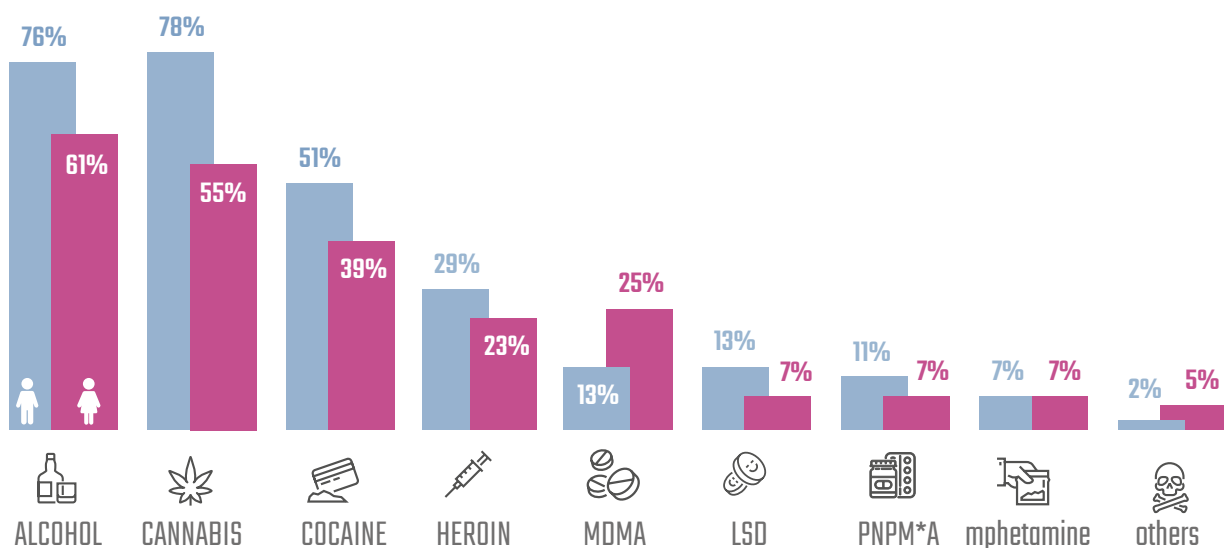
The first question addressed to all respondents asked about the use of traditional drugs in their lifetime: most respondents are users of legal and illegal substances. **Alcohol** and **Cannabis** and then **Cocaine** are the most psychoactive substances used (Fig. 5). In the category “others” **Buprenorphine**, **Mescaline** and **Speed** were indicated<sup>49</sup>.

FIG. 5. PSYCHOACTIVE SUBSTANCES USED; \*PNPM= PSYCHIATRICS NOT PRESCRIBED MEDICATIONS



Psychoactive substances are mostly used by men, except for **MDMA**. The higher percentage of female use of MDMA defers from data usually suggested by literature.

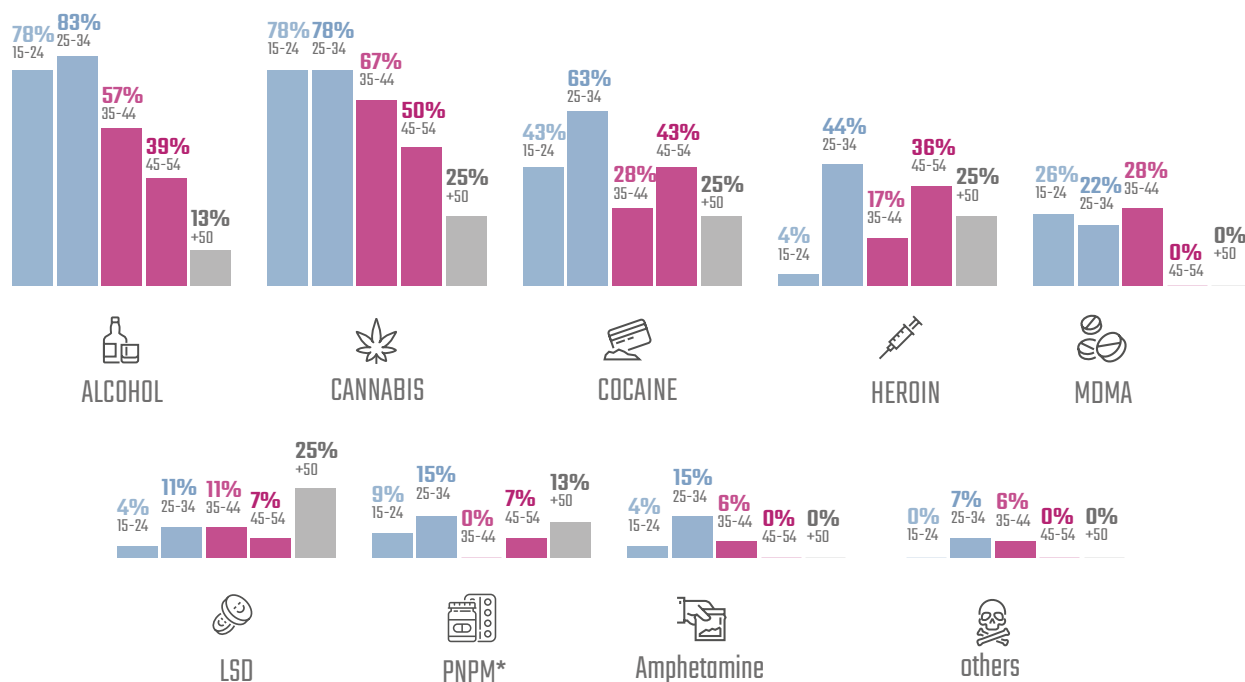
FIG. 6. PSYCHOACTIVE SUBSTANCES BY SEX



<sup>49</sup> Buprenorphine is a semi-synthetic opioid derived from Thebaine. It is a pain killer, used in the treatment of opiate addiction. Mescaline is a Natural Phenethylamine psychedelic occurring in the peyote cactus. The respondent who specified this substance, hasn't included Mescaline in the group of NPS probably because of its history and legal status in Italy. "Speed" is a common name used for methamphetamines.

Across all the age groups of respondents, alcohol and cannabis are the substances most used. People aged between **15 and 24** are users mainly of alcohol and cannabis, but also of MDMA, while they seem not to be interested in Heroin. People aged between **25 and 34**, are the main consumers **of all illegal drugs**, except for MDMA and LSD. The common use of Heroin in this group of respondents is particularly suprising. People aged between **35 and 44** are users mainly of Alcohol, Cannabis, and MDMA. Older people aged over 55 seem to be more selective in the substances used: amphetamines and MDMA are not used at all, while they seem to be common users of LSD, especially if compared to other groups.

**FIG. 7. PSYCHOACTIVE SUBSTANCES BY AGE GROUPS (%); PNPM= PSYCHIATRICS NOT PRESCRIBED MEDICATIONS**



#### Alcohol, Cannabis and Cocaine are the substances used most in association:

- + 45 respondents use Alcohol + Cannabis
- + 30 respondents use Alcohol + Cannabis+ Cocaine
- + 27 respondents use Alcohol + Cocaine

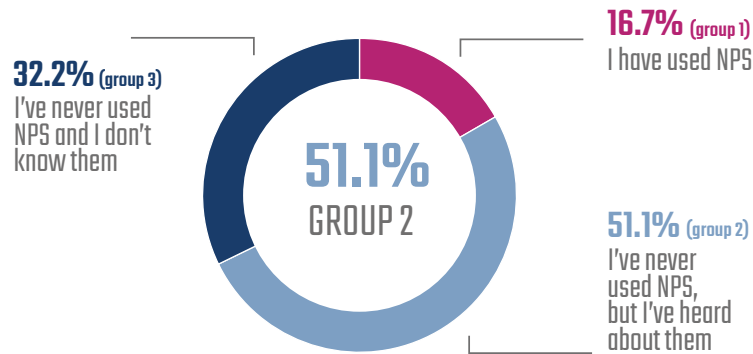
## KNOWLEDGE AND USE OF NEW PSYCHOACTIVE SUBSTANCES: PROFILING THE RESPONDENTS

As specified in the introduction, the second question in the survey differentiated respondents into three groups: people who declared to know and to use NPS; people who said that they know about NPS but do not use them and then people who declared that they don't know anything about and don't use NPS. So the sample of respondents is divided in three groups:

- + **Group 1:** is composed of 16.7% of respondents who declared to have used NPS at least once in lifetime;
- + **Group 2:** it includes people who declared to know about NPS but are not users of NPS. They are the 51.1% of the sample;
- + **Group 3:** is represented by the 32.2% of respondents who say that they don't know about and don't use NPS.



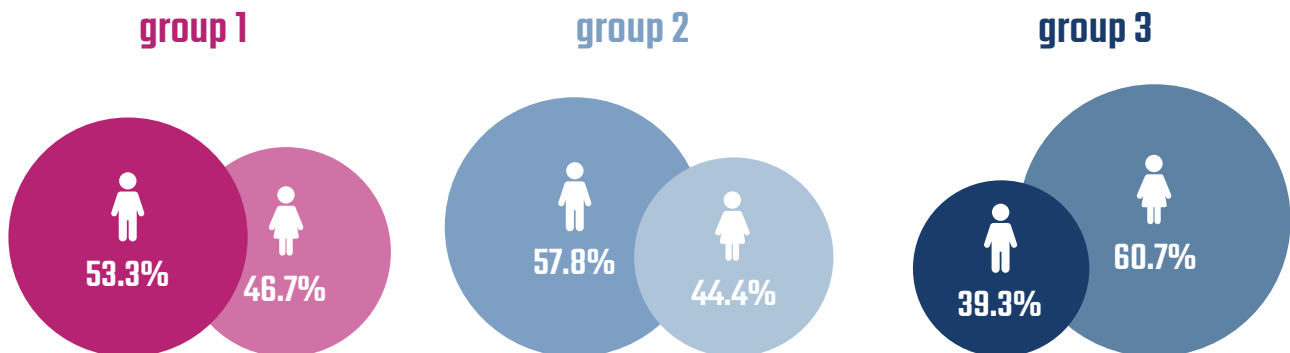
FIG. 8. KNOWLEDGE AND USE OF NPS: THREE GROUPS OF RESPONDENTS



**Group 3**, the group of respondents declaring to never have used NPS or know anything about NPS, is the only group with a higher percentage of female than male respondents, while, in the other two groups the highest percentages of respondents are male. So, males seem to be the most likely of the sexes to be informed about NPS and they are mostly users of NPS too. (See Fig. 9).

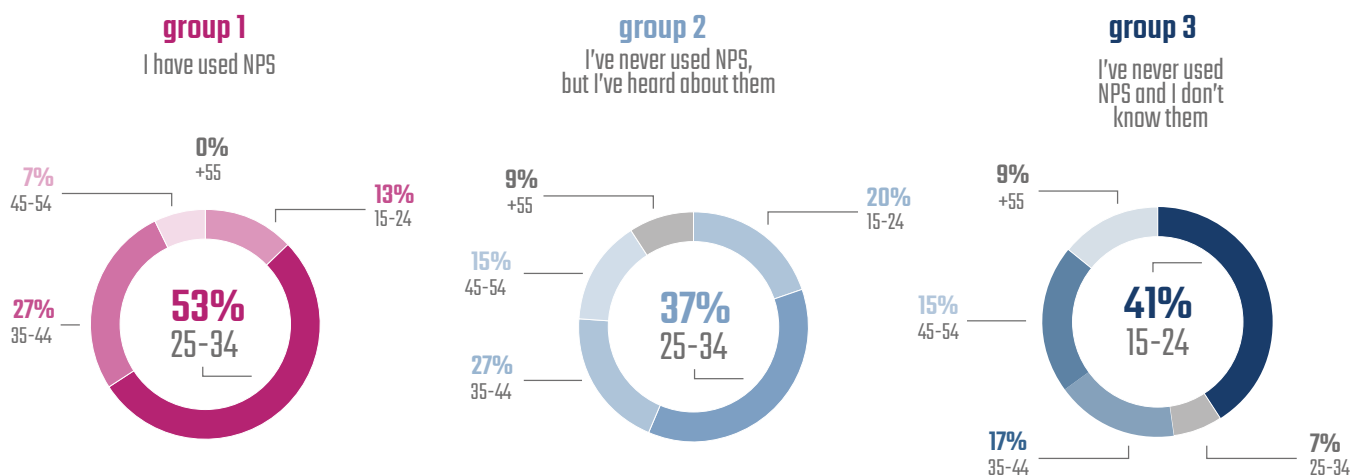
FIG. 9. GROUPS OF RESPONDENTS BY SEX

FIG. 9. GROUPS OF RESPONDENTS BY SEX



The Figure below shows the groups of respondents by age. People declaring their use of NPS (**Group 1**) are mostly aged between 25 and 44, **Group 3** is mainly between 15 and 24, while people declaring to know but not to use but NPS is nearly equally distributed across all age groups with the highest prevalence in the 25-34 group.

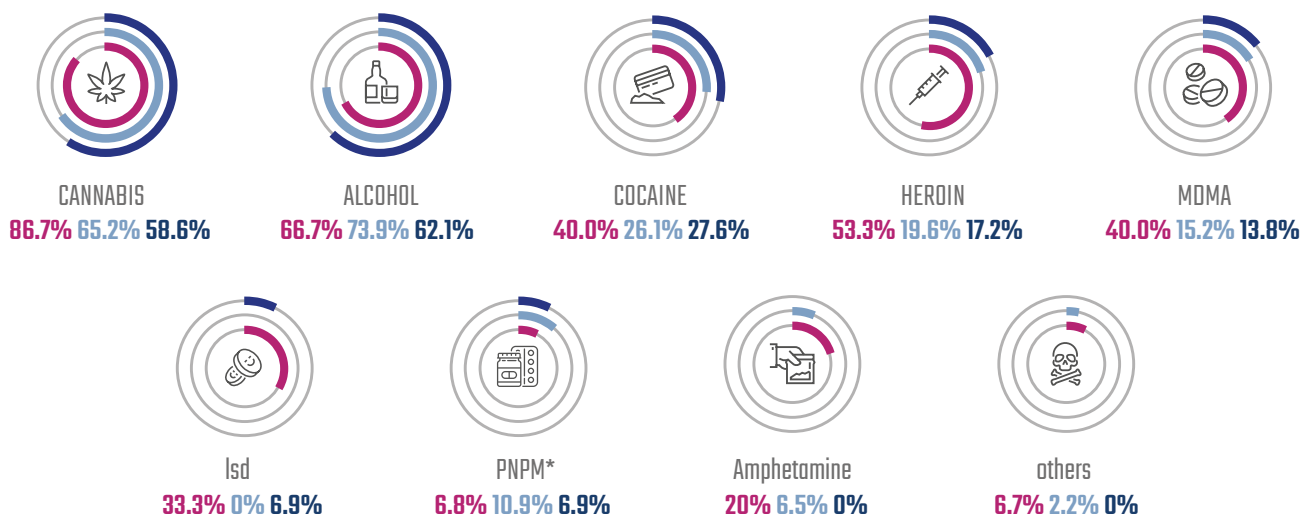
FIG. 10. GROUPS OF RESPONDENTS BY AGE



So, NPS seem to be used mostly by young-adult people and less by teenagers.

Compared to the other two groups, users of NPS are most likely to be users of other drugs too. The figure below shows that the people from Group 3, who declare to not know and use NPS, most likely don't use other illicit drugs: this group doesn't consume Amphetamines or any other drugs at all, while they mostly use alcohol and cannabis, but in lower percentage than the other two groups. The group of people declaring to have heard about NPS is the group with the highest percentage of Alcohol use.

FIG. 11. GROUPS OF RESPONDENTS BY DRUG USED



## GROUP 1: PEOPLE DECLARING THE USE OF NPS

Focusing on people who have declared using NPS, only 15 respondents are included in this group: 8 respondents are male, 7 respondents are female. They are mostly aged between 25 and 34. The average age is 36 years. Most of them are employees followed by freelance professionals and students.

FIG. 12. NPS USERS BY AGE

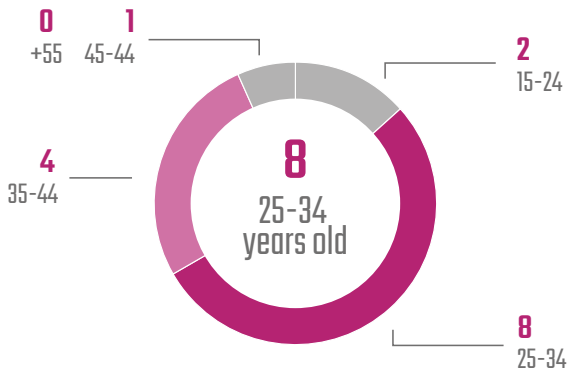
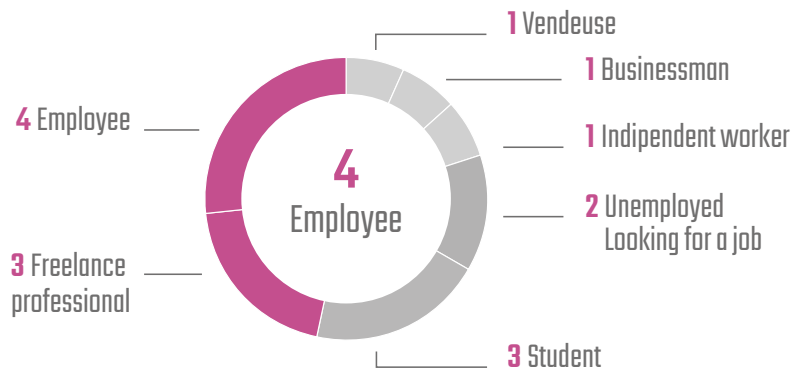


FIG. 13. NPS USERS BY JOB



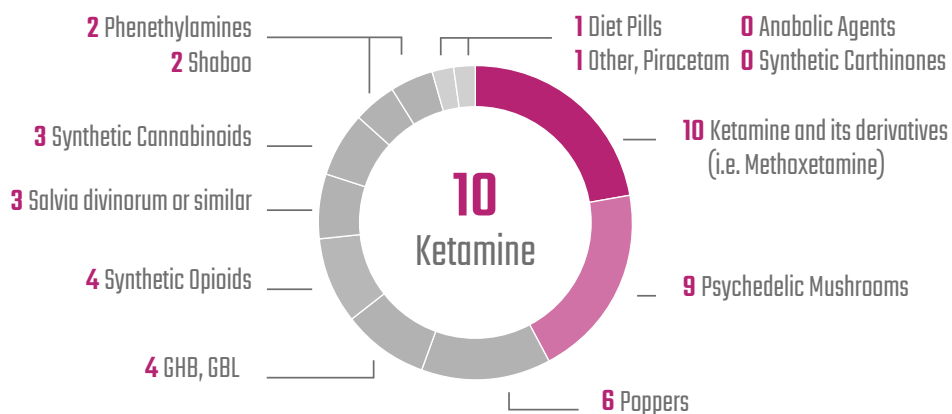
As already anticipated in the Introduction, information collected from this group of respondents tends to describe a general pattern of use related to NPS, in particular:

- Types on NPS used;
- Frequency of use;
- Other Psychoactive Substances used;
- Contexts of use;
- Motivations for NPS use;
- Reasons for using NPS instead of other psychoactive substances;
- Ways of provision of NPS: who provides NPS, where NPS are offered or bought, if NPS are obtained with other drugs;
- Channels of information on NPS;
- Perception of safety of NPS.

#### NPS used

The most common NPS used is Ketamine, even if, as said before, this substance can't be considered a New Psychoactive Substance, both for legal reasons and for its widespread use in Italy. **Ketamine** a substance closer to a traditional drug than to NPS. **Psychedelic mushrooms** are the second substance mostly used by respondents, while **Synthetic Cathinones** and **Anabolic agents**, don't seem to be used at all by respondents. One respondent specified "Other" to mean Piracetam, a nootropic substance which is legally sold in Italy (Fig.14).

FIG. 14. NEW PSYCHOACTIVE SUBSTANCES USED



Frequency of use

Most NPS users tried NPS only **once in their lifetime**. Few people had used NPS more than 3 times: as shown in Figure 15 the substances most frequently used are **Ketamine, Synthetic Opioids**, and **GHB/GBL**.

FIG. 10. FREQUENCY OF NPS USE

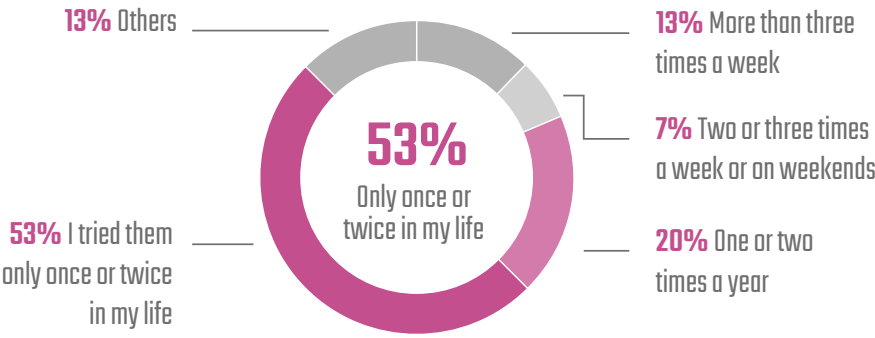
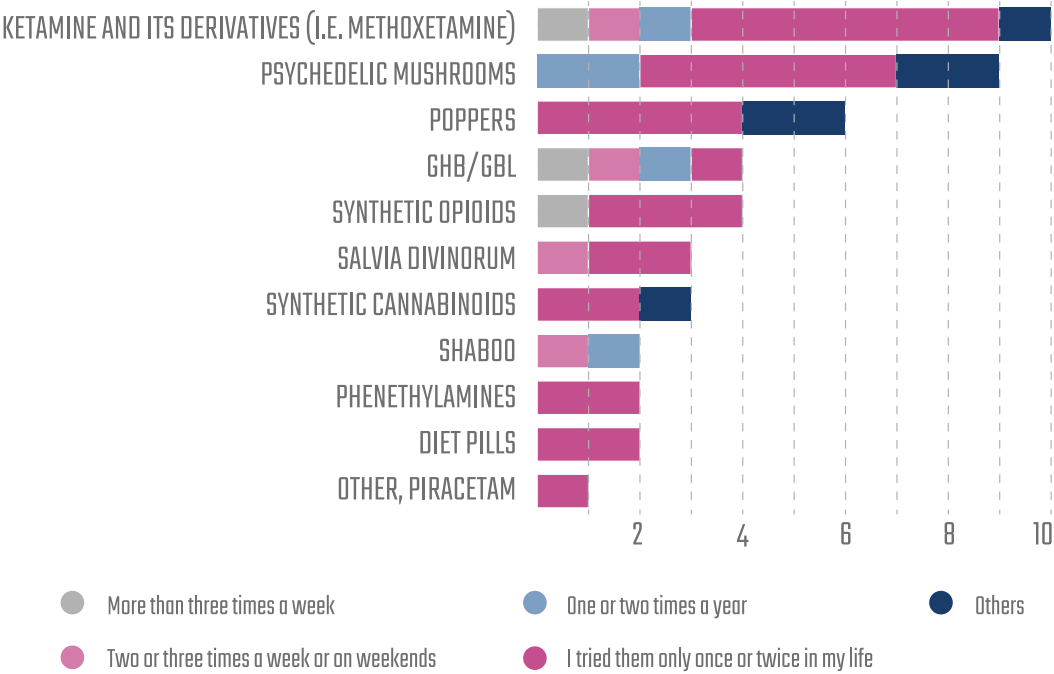


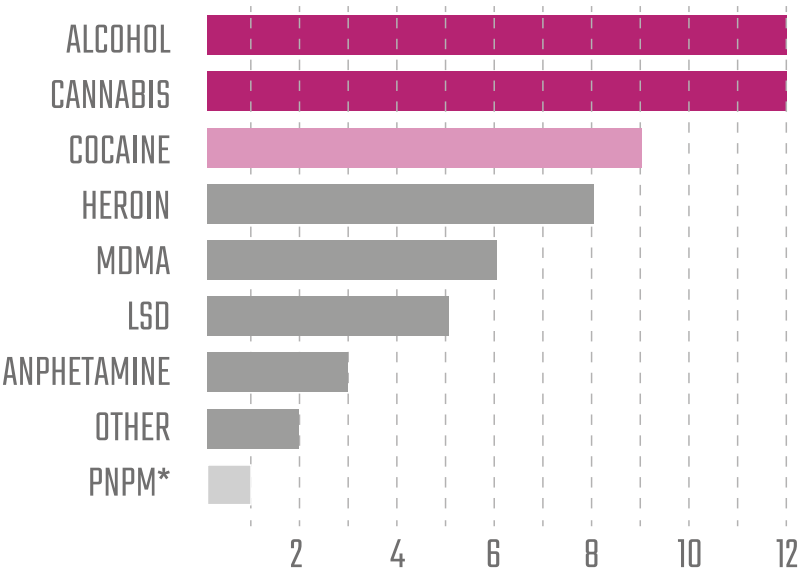
FIG. 16. FREQUENCY OF USE BY SUBSTANCE



Other Psychoactive Substances used

NPS users also consume other legal and illegal drugs: the main substances used by them are Alcohol, Cannabis and Cocaine (Fig. 17).

FIG. 17. OTHER LEGAL AND ILLEGAL DRUGS USED - \*PNPM= PSYCHIATRIC NOT PRESCRIBED MEDICATIONS



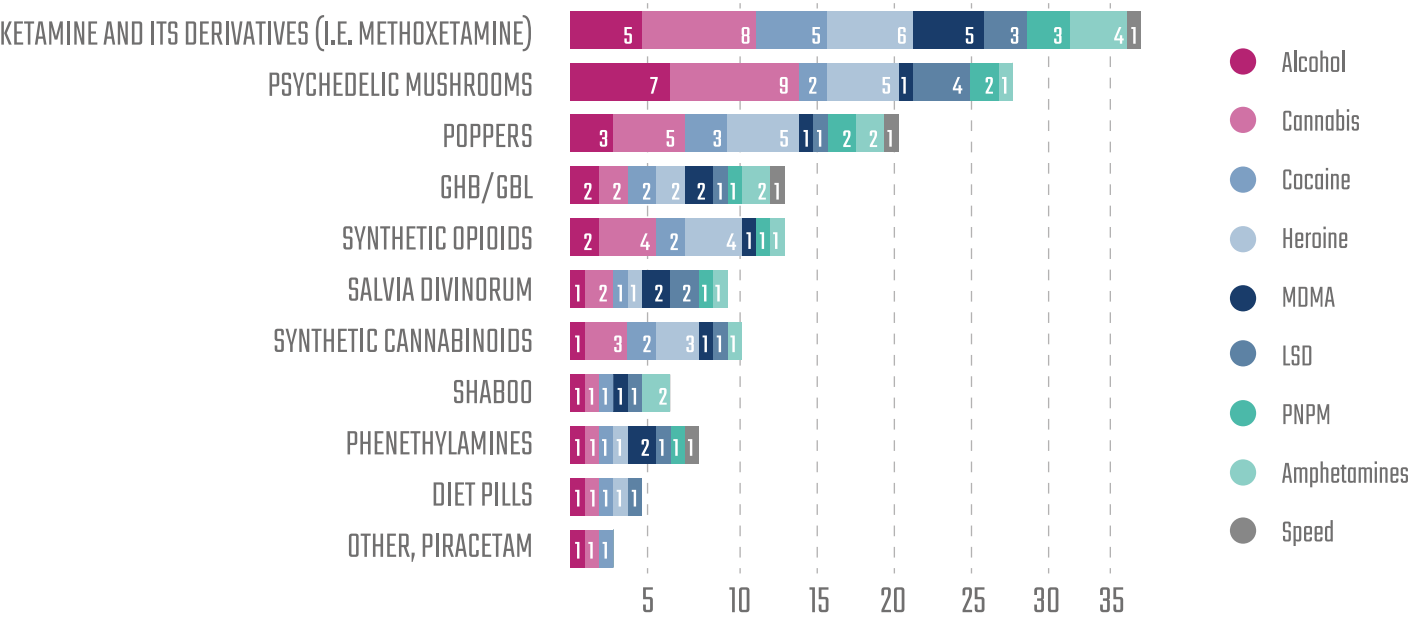
So, NPS users are polydrug users: most of them declare to be users of 5 to 10 legal and illegal substances. 10 NPS users consume also Alcohol and Cannabis; 6 of them use Alcohol with Cocaine, 6 of them also use Alcohol and MDMA.

The tables below show the main associations between traditional drugs and New Psychoactive Substances: Psychedelics Mushrooms are mostly used with Alcohol and Cannabis; Ketamine is mostly used with cannabis; Poppers are mainly used with cannabis.

TABLE 2 MAIN COMBINATIONS OF NEW PSYCHOACTIVE SUBSTANCE WITH OTHER DRUGS

	ALCOHOL	CANNABIS	COCAINE	HEROIN	MDMA	LSD	PNPM	AMPHETAMINES	SPEED
Ketamine and its derivatives	5	8	5	6	5	3	3	4	1
Psychedelic Mushrooms	7	9	2	5	1	4	2	1	
Poppers	3	5	3	5	1	1	2	2	1
GHB/GBL	2	2	2	2	2	1	1	2	1
Synthetic Opioids	2	4	2	4	1		1	1	
Salvia divinorum	1	2	1	1	2	2	1	1	
Synthetic Cannabinoids	1	3	2	3	1	1	0	1	
Shaboo	1	1	1		1	1		2	
Phenethylamines	1	1	1	1	2	1	1		1
Diet Pills	1	1	1	1					
Other, Piracetam	1	1	1						

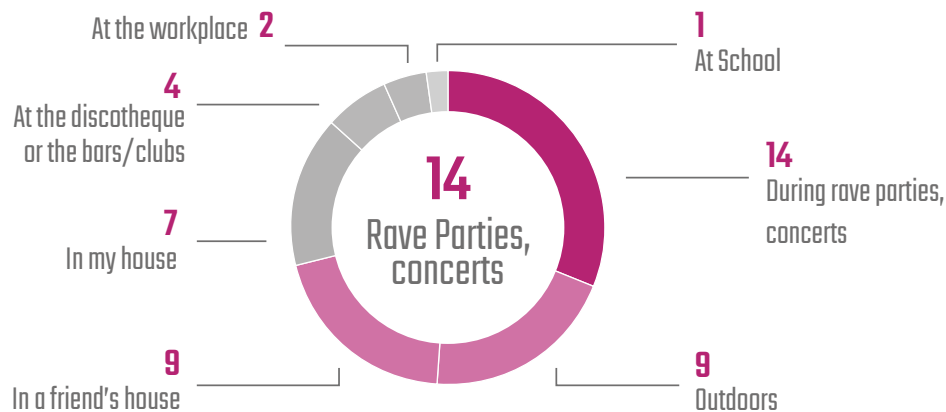
FIG. 18. MAIN ASSOCIATION BETWEEN TRADITIONAL DRUGS AND NEW PSYCHOACTIVE SUBSTANCES



### Contexts and motivations for NPS use

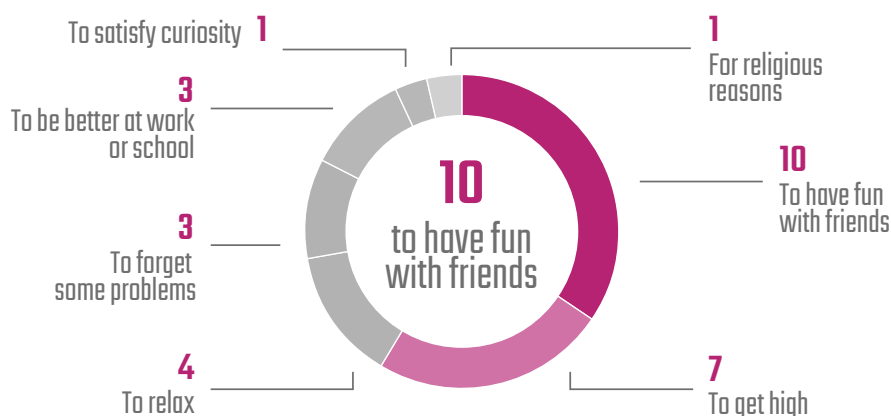
The main **contexts of use** are **recreational**, in particular rave parties. The average age of respondents declaring the use of NPS in recreational contexts is 31, which seems to be higher than the average age of people usually attending rave parties<sup>50</sup>. Two respondents declared to use NPS at their workplace: both are users of **Synthetic opioids**.

FIG. 19. CONTEXTS OF NPS USE



Motivations for using NPS are strictly connected to the context of use: recreational contexts being the main places of NPS use, respondents declare to have tried or used NPS mostly to have fun or to get high, while the motivations, such as to be better at school or at work correspond to the use of NPS in these contexts.

FIG. 20. MOTIVATIONS FOR NPS USE



<sup>50</sup> According to a survey of the Neutravel Project (an Italian outreach service operating during raves, parties), during free parties, the average age is 22, in small events 23, and in big events 23,3. Findings from the survey were presented during the National workshop "Il progetto SAR -NEUTRAVEL. La prossimità nei contesti del divertimento e dei consumi", 21-22 Maggio 2015, Turin.

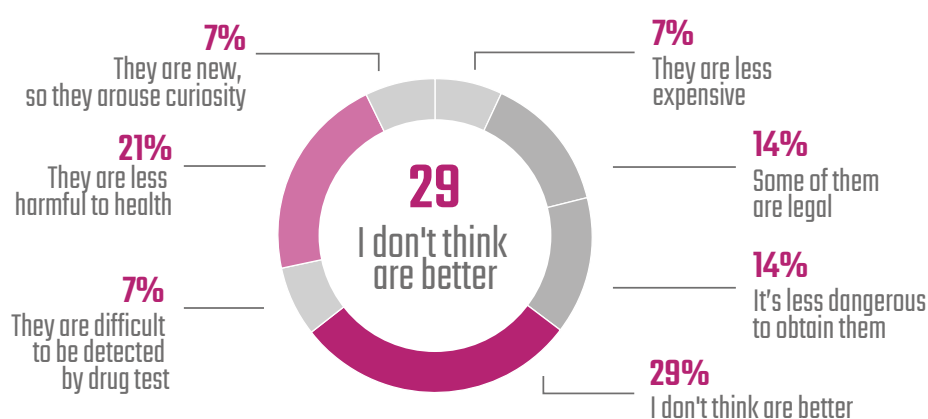
Respondents were asked to list the reasons why NPS could be considered better than other traditional drugs. Respondents could choose among the following options:

- + They are less expensive;
- + Some of them are legal;
- + They are easier to find;
- + It's less dangerous to obtain them;
- + They are less harmful to health;
- + Others.

In the category "Others" some respondents specified the following reasons:

- + They are new so they arouse curiosity;
- + They are difficult to be detected by drug tests.

FIG. 21. REASONS WHY NPS ARE BETTER THAN OTHER DRUGS



29% of respondents declared that **NPS are no better** than other drugs. This confirms data about the frequency of NPS use: the most likely users seem to try NPS once or twice in their lifetimes and then they stop.

One main reason given for using NPS was because **NPS are less harmful**: these respondents are 36, 22 and 18 years old and they are users of Ketamine, Piracetam, Phenethylamines, Poppers, Ketamine, Salvia Divinorum. Respondents who prefer NPS because **they are legal**, are mainly users of Synthetic Cannabinoids, Synthetic Opioids and Magic Mushrooms.

Respondents declare that **obtaining NPS is less dangerous than getting other drugs** or buying NPS on Internet i.e. in smart shops online and on the marketplaces of the deep web. They are users of Synthetic Cannabinoids, Synthetic opioids, Popper and Ketamine and its derivatives<sup>51</sup>.

### Provision of NPS

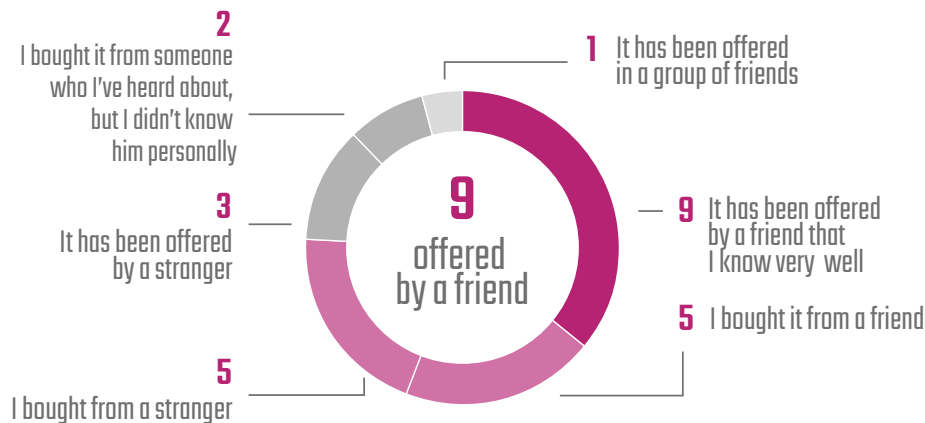
According to the answers to the survey, NPS seem to be both offered and bought.

When NPS are bought, the people who provide these substances are both friends and strangers. Friends are also the first channel of provision when NPS are offered.

<sup>51</sup> More details on NPS user profiles are provided in the appendix.



FIG. 22. PEOPLE WHO PROVIDE NPS



NPS don't seem to be provided together with other drugs. It can be supposed that channels of procuring NPS are far different from channels of other drugs. Respondents who declare to procure NPS with other drugs are mainly users of Ketamine, Psychedelic Mushrooms and GHB/GBL.

FIG. 23. PURCHASING OF NPS AND OTHER DRUGS

Has the substance been offered together with more traditional drugs, like hashish, cocaine and heroin?

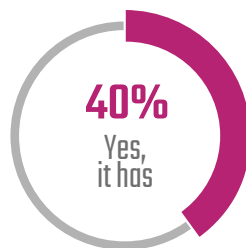
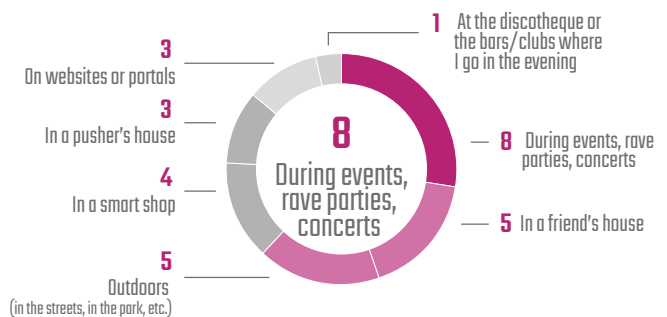
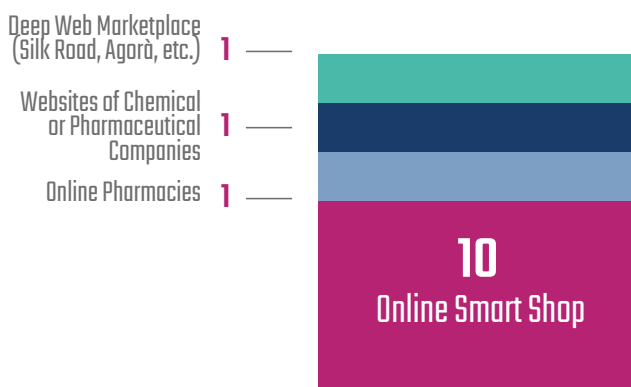


FIG. 24. PLACES TO BUY NPS



The main contexts of buying NPS are recreational, in particular rave parties. So, it seems that the contexts of purchasing usually correspond to the contexts of use (see Fig. 18). The second context is at friend's house – a place that confirms the fact that NPS are mostly tried and used with friends. Few people buy substances on the Internet: although the limited sample confirmed the fact that in Italy the online market doesn't seem to be so widespread. Internet channels listed by respondents are: online smart shops, online pharmacies, chemical company websites and the deep web marketplaces (See Fig. 25).

FIG. 25. INTERNET CHANNELS FOR NPS



Most respondents declare to trust in their channels of substance provision, but there are some differences between males and females: females seem to be more uncertain than males about people who provide them with NPS.

FIG. 26. TRUST IN PEOPLE WHO SELL SUBSTANCE

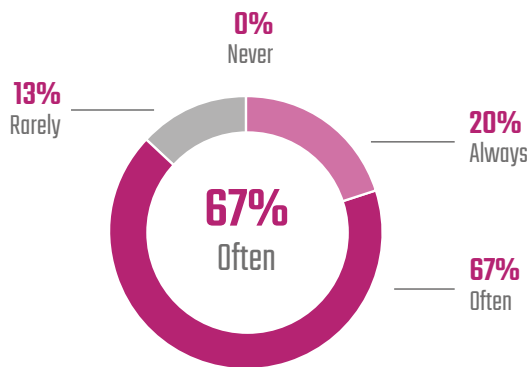
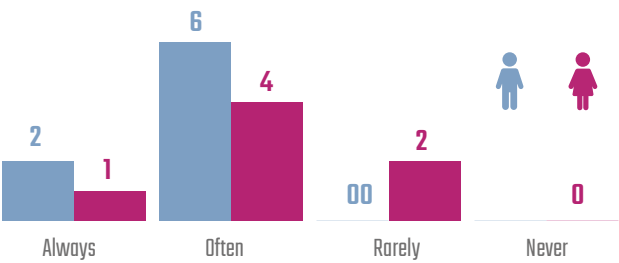
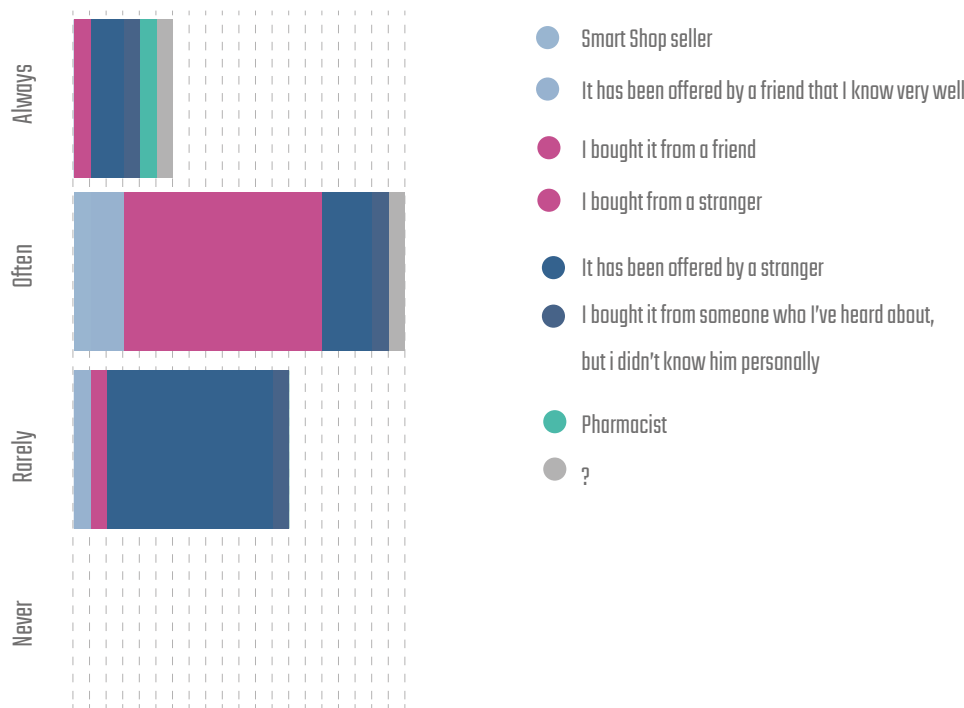


FIG. 27. TRUST IN PEOPLE WHO SELL SUBSTANCE BY SEX

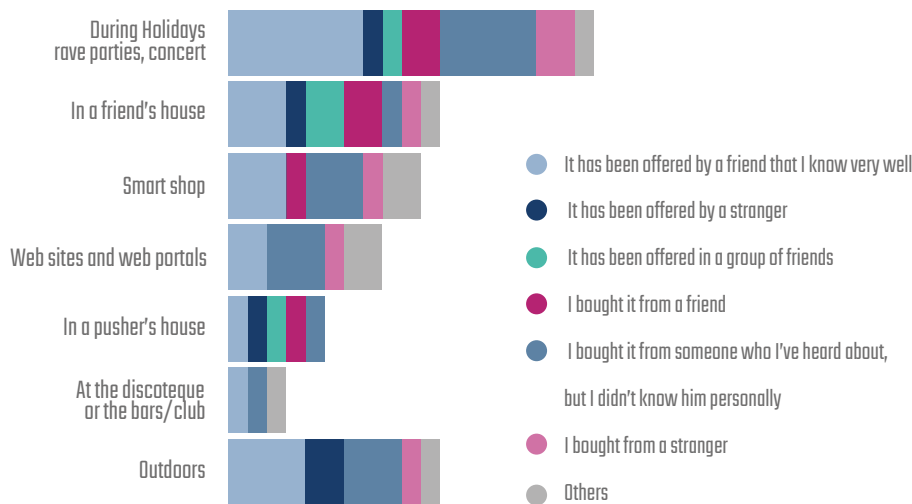


Looking at Figure 28, the data suggests that those who buy from friends often declare to trust in them, but when the substance is offered the level of trust seems to be lower. Nobody declares to not trust at all in people who provide drugs.

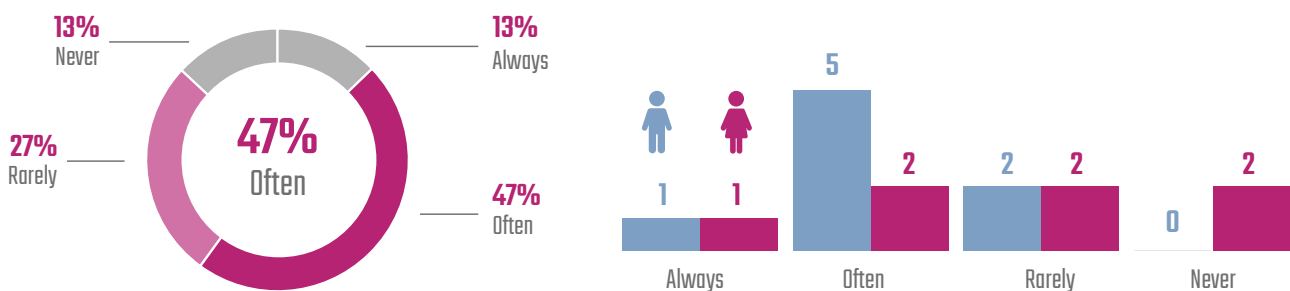
FIG. 28. ASSOCIATION BETWEEN WAYS OF PROCURING DRUGS AND LEVEL OF CONFIDENCE IN PEOPLE PROVIDING NPS



During rave parties NPS seem to be mostly offered by friends, while outdoors is the context where NPS are most frequently bought by strangers.

**FIG. 29. ASSOCIATION BETWEEN THE WAY OF PROCURING NPS AND THE PLACE OF PROVISION**

About the perception of safety, most respondents say that they are often and always sure about what they buy, but in general females seem to be less sure than males about the NPS they take (Fig.30). People who buy from friends or by Internet channels declare to be sure about the NPS and they usually don't buy NPS at the same time as other illicit drugs. Two respondents declaring to not be sure about the substances they take, are users of Ketamine and Synthetic Cannabinoids.

**FIG. 30. AND 31. SAFETY PERCEPTION OF SUBSTANCES BOUGHT**

### The channels of information on NPS

Before buying NPS respondents say that they get information on drugs mainly from friends and or from the Internet either by websites selling NPS and on forums for consumers. Females seem to pay more attention to informing themselves before taking substances than males do (none of them declare to not keep themselves informed about substances). Their first channel of information are friends, contrary to male behaviour. Only one male declares getting informed about NPS on websites where they buy them.

FIG. 32. CHANNELS OF INFORMATION ON NPS

Before using a substance, do you look for information about dosage and expected reactions?

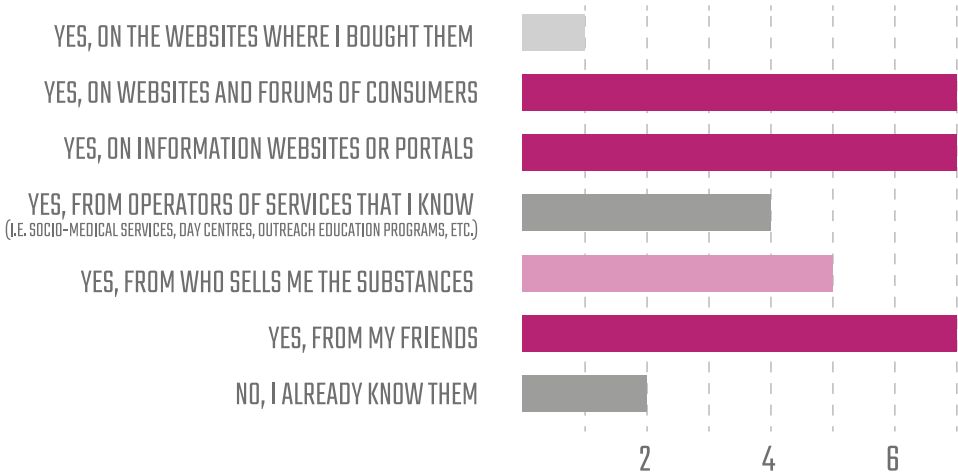


FIG. 33. CHANNELS OF INFORMATION BY SEX

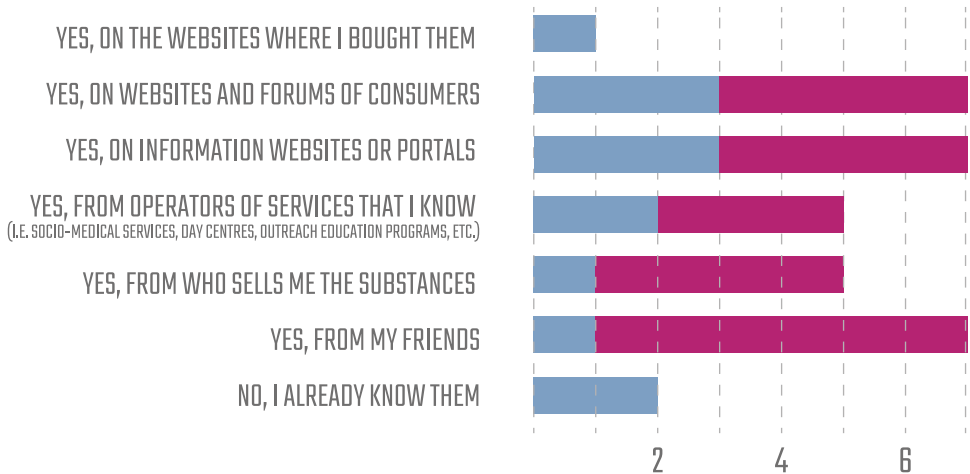
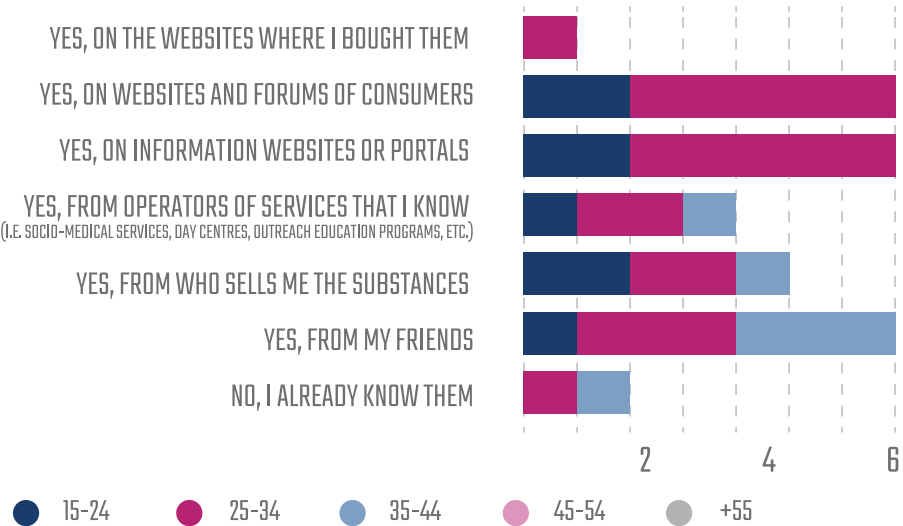


FIG. 34. CHANNELS OF INFORMATION BY AGE



All NPS users aged between 15 and 24 take information from friends, from information websites on drugs and consumer forums. People aged between 25 and 34 get informed mainly by the Internet, and respondents between 35 and 44 take information mainly from friends.

### Group 2: People who know about but don't use NPS.

Focusing on people who have declared to know about but not to use NPS, 46 respondents are included in this group: **25** respondents are **male**, **20** respondents are **female**. They are mostly aged between . The average age is 35 years. Most of them are employees, followed by students. 7 of them are unemployed.

FIG. 35. PEOPLE WHO KNOWS BUT DON'T USE NPS BY JOB

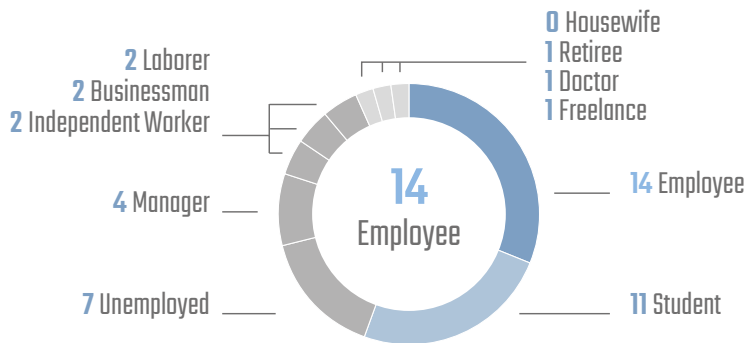
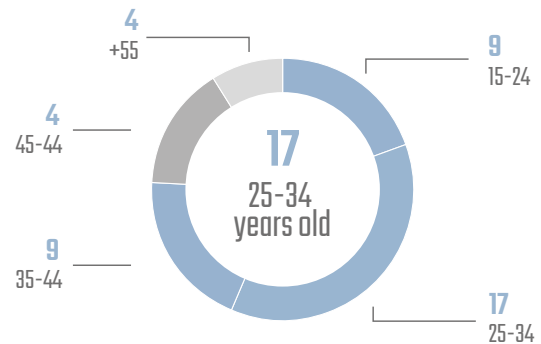


FIG. 36. PEOPLE WHO KNOWS BUT DON'T USE NPS BY AGE



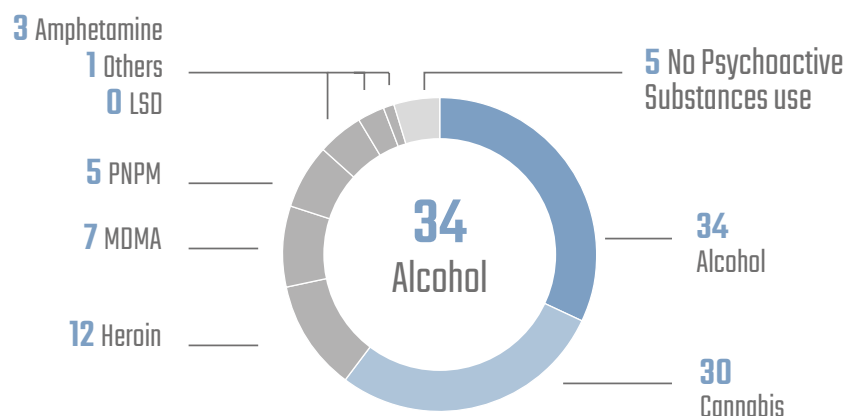
Information collected from this group concerned:

- j) Psychoactive substances used;
- k) Types of NPS known;
- l) Channels of information used;
- m) Reasons why they don't use NPS;
- n) Perception of difficulty in procuring NPS.

### Psychoactive substances used

This group of respondents are users of other psychoactive substances. As shown before they use mainly Alcohol and Cannabis. In this group of respondents 5 respondents declared to not use Psychoactive Substances at all.

FIG. 37. OTHER LEGAL AND ILLEGAL DRUGS USED



This group of respondents, as with the first group, are also polydrug users, even if, compared to the NPS users, they use less substances: they declare to be users of 2 to 4 legal and illegal substances. 25 of them use Alcohol and Cannabis; 12 of them use Alcohol, Cannabis and Cocaine.

Types of NPS Known

Seven of the 11 NPS listed in the questionnaire are more known by females than by males. These NPS are: Ketamine, Synthetic Cannabinoids, Shaboo, GHB/GBL, Synthetic Cathinones, Anabolic Agents and Synthetic Opioids; while Poppers, Psychedelic Mushrooms, Salvia Divinorum and Diet Pills are more known by males.

FIG. 38. NPS KNOWN

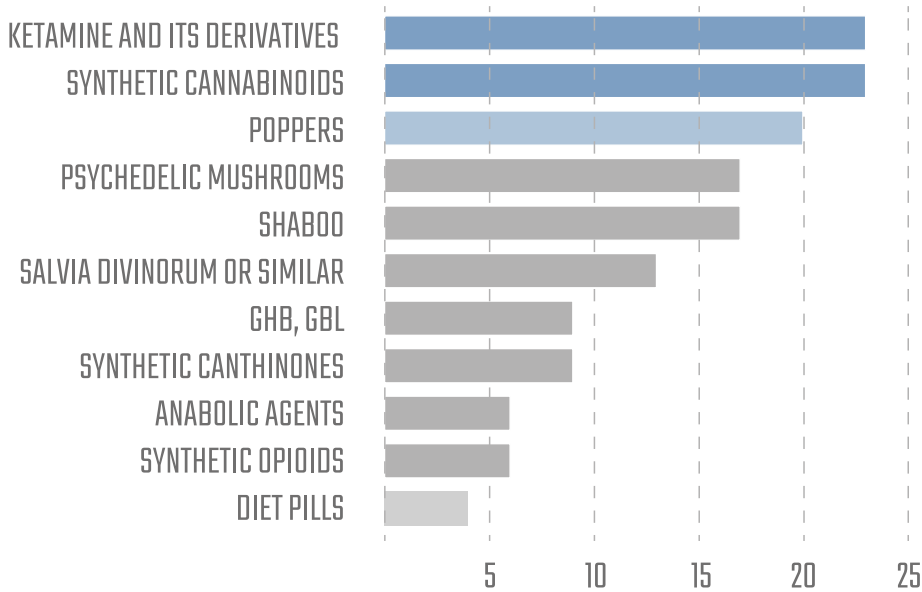
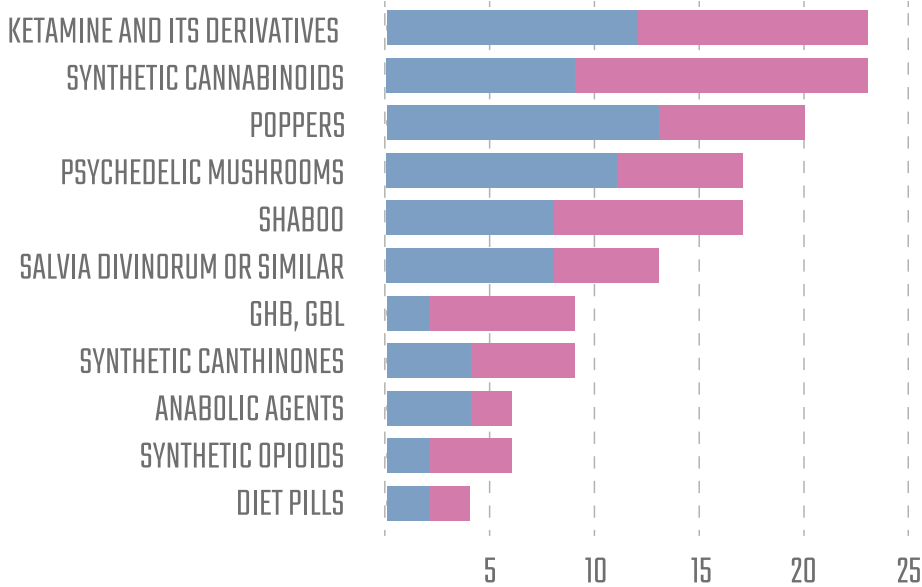
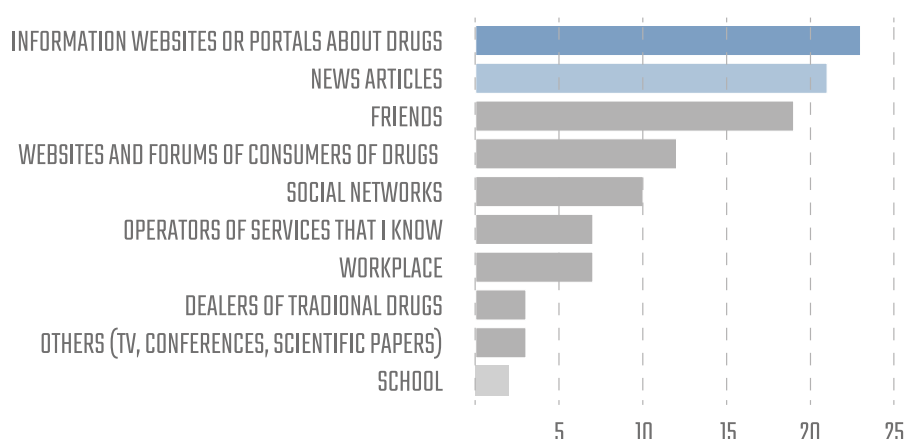


FIG. 39. NPS KNOWN BY SEX

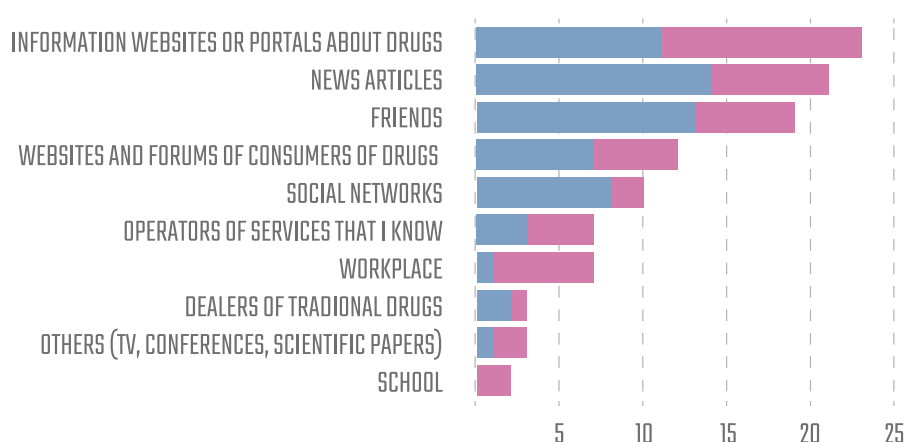


Channels of information

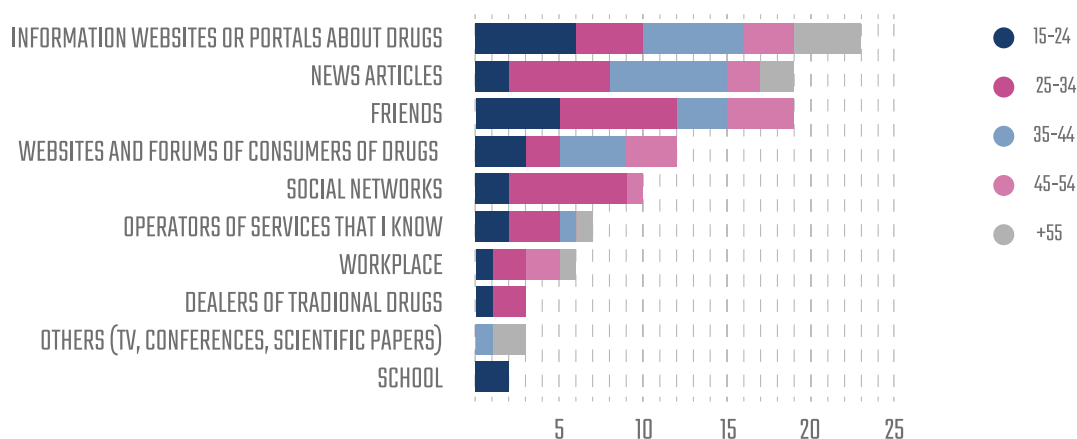
Main channels of information on drugs are websites or portals of information on drugs and articles from newspapers. Differently from the group of NPS users, friends are only the third channel of information. So people in this group seem to be more interested, than the group of NPS users, in getting information about NPS from institutional sources.

**FIG. 40. CHANNELS OF INFORMATION ON NPS**

Females mainly get information on drugs from the Internet, while males get informed mostly by newspaper articles and from friends. Moreover only female declared to have been informed about drugs at school.

**FIG. 41. CHANNELS OF INFORMATION BY SEX**

Looking at the channels of information by age, younger people generally keep themselves informed mostly by talking to friends, while older people from newspaper articles; people aged between 15 and 24 use mostly websites of information on drugs, while people between 25 and 34 mainly use social networks. People aged over 55 mainly look for information about NPS on drug information websites.

**FIG. 42. CHANNELS OF INFORMATION BY AGE**

Reasons for not using NPS

This group of respondents declares to not use NPS mainly because they are not interested in NPS and also because they don't know exactly what NPS are or contain. Male respondents mostly specified these reasons, while some girls specifically mentioned that they wouldn't know how to get them (Fig. 44).

FIG. 43. REASONS FOR NOT USING NPS

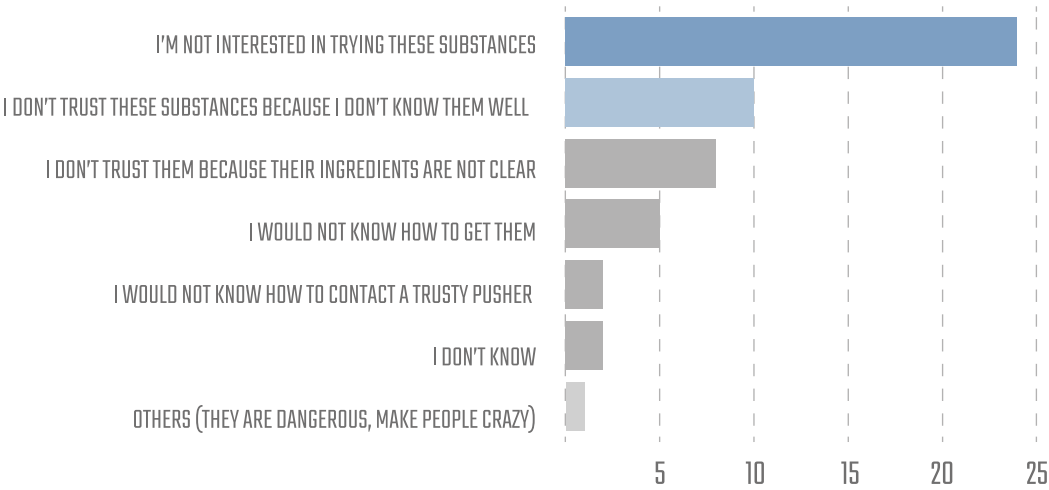
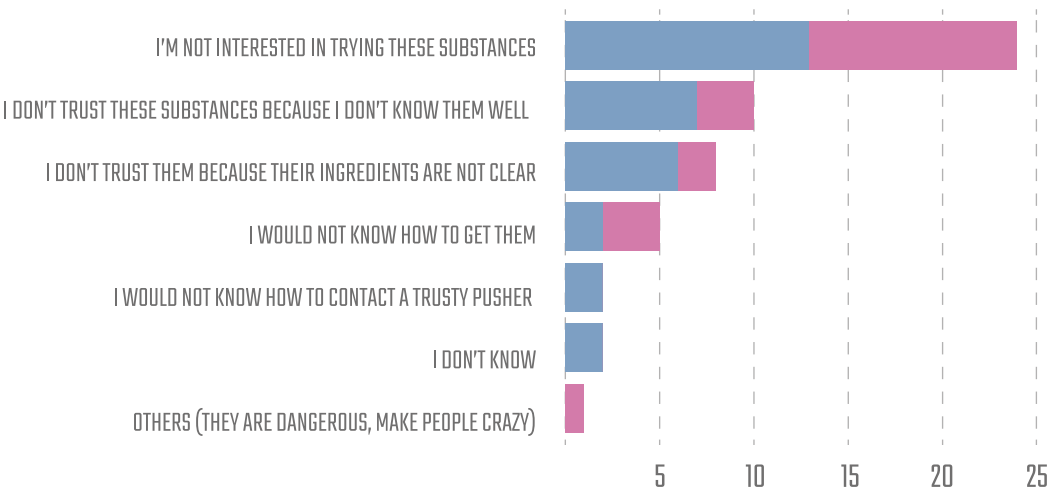
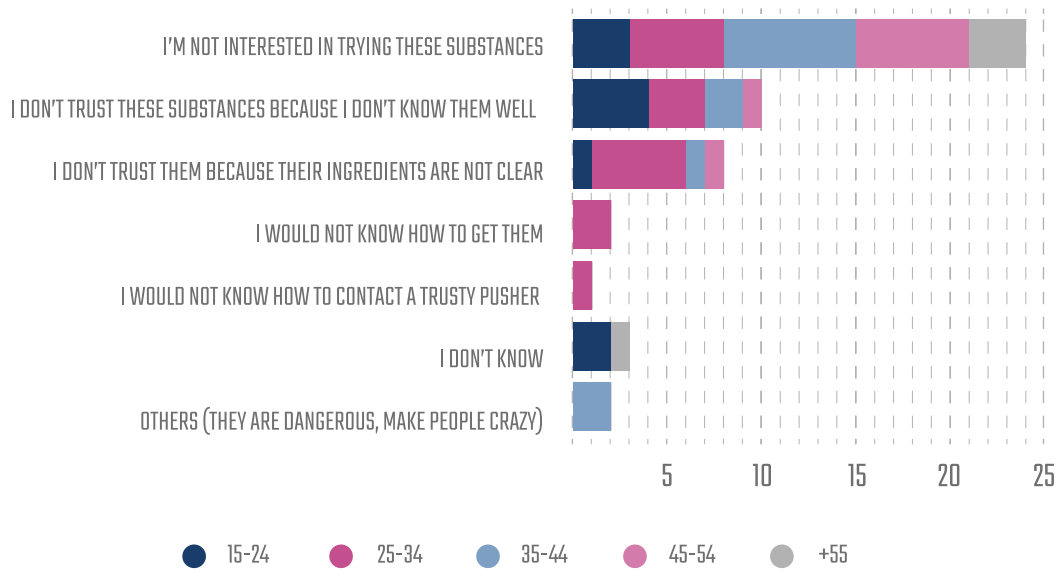


FIG. 43. REASONS FOR NOT USING NPS BY SEX



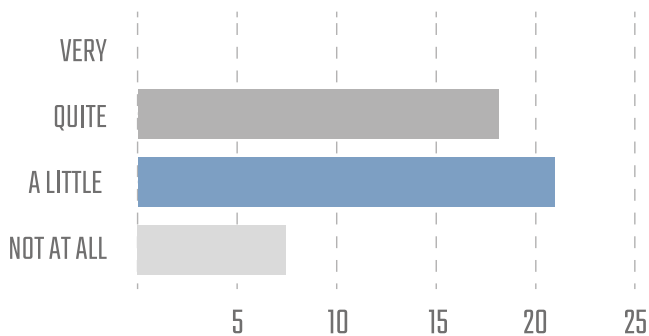
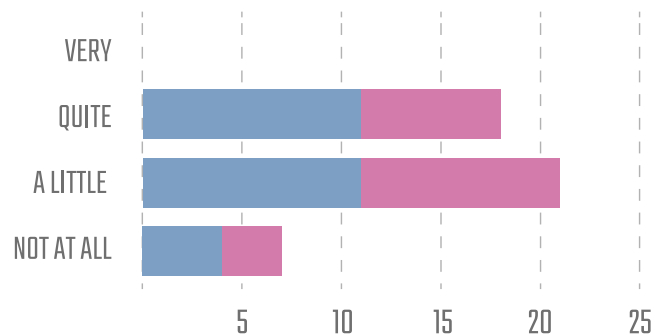
Looking at the answers of respondents by age, older people declare to not use NPS because they are not interested in them, while younger people seem to be more afraid of NPS because they are unknown. People aged between 25 and 35 are the group that mostly don't use NPS because their compounds are not clear. This age group is also the only group that declares that they wouldn't know how to get them or how to contact a trusty pusher.



**FIG. 45. REASONS FOR NOT USING NPS BY AGE**

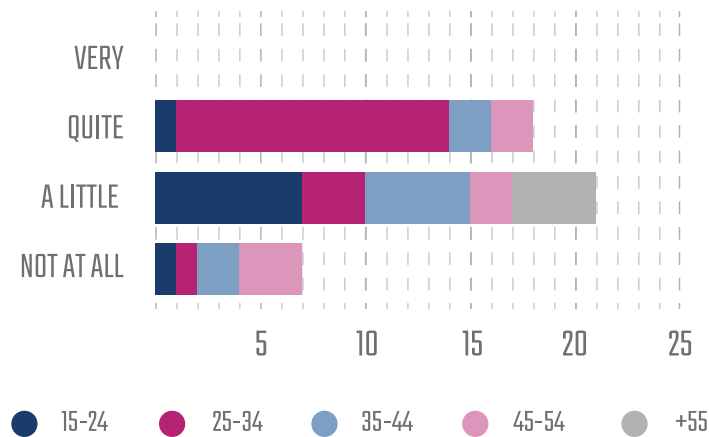
### Perception of difficulty in getting NPS

Most of these respondents think that getting NPS is not difficult. As shown before, in fact, respondents of this group are users of other legal and illegal drugs, so it can be supposed that neither their uncertain legal status, or the way of procuring NPS are considered obstacles in getting NPS, but that they not use NPS mainly because they are not interested in them.

**FIG. 46. PERCEPTION OF THE DIFFICULTY OF GETTING NPS****FIG. 47. PERCEPTION OF THE DIFFICULTY OF GETTING NPS BY SEX**

Females seem to be a little more uncertain than males about the ease of getting hold of NPS. People aged between 25 and 34 are the group with the highest perception of difficulty in getting NPS: this is the same group that declares that they don't use NPS because they wouldn't know how to get them. Older people seem to be the respondents with a generally lower perception of difficulty in procuring substances.

FIG. 47. PERCEPTION OF THE DIFFICULTY OF GETTING NPS BY AGE



### Appendix - NPS Users Profiling

Four specific NPS users profiles have been identified because of their interesting characteristics.

+ User of Synthetic Opioids: this respondent differs from other users for the context of use and for the way of purchasing substances. He is a male aged 34, a frequent users of other traditional drugs such Alcohol, Cannabis, Heroin and Cocaine. His main motivation for using Synthetic Opioids is to relax and to forget problems. He is an employee and the workplace is one of the contexts of use listed in the questionnaire, along with his house and rave parties. He bought the substances via an online pharmacy.

+ User of Piracetam: the user of this substance is a male aged 18. He is a user of Alcohol, Cannabis and Cocaine. He is a student and he declares that he uses this substance in order to be better at school. He bought the substance from a friend.

+ Female Polydrug user: The respondent is 25 years old, she lives in France and she works in a boutique. She says she is a frequent user of Synthetic Cannabinoids, Poppers, Synthetic Opioids and Ketamine. Other traditional drugs she uses are Cannabis and Heroin. She buys substances both on the Internet, and outdoors.

+ Buyer on the deep web marketplace: This respondent is 33 years old and is a polydrug user. NPS used are: Ketamine, Synthetic Opioids Salvia Divinorum and Psychedelic Mushrooms. But he is also user of other traditional drugs such as MDMA, Cannabis, Heroin. He declares to trust in the marketplace and to be sure about the substances he buys. Below are schematized other NPS user profiles. For each profile, in addition to the socio-demographic information, the 6 most relevant characteristics have been identified and reported.

Profile n. 5						
Age/sex/Job	Drugs used	NPS used	Context of use	Channels of provision	Frequency of use	NPS provided with other drugs
27, F Student	Alcohol, Cannabis, MDMA, LSD	Psychedelic Mushrooms	Recreational context	Friends, Smartshop online	Once or twice a year	Yes
Profile n. 6						
Age/sex/Job	Drugs used	NPS used	Reason why NPS are better	Channels of provision	Frequency of use	NPS provided with other drugs
35, F Employee	Alcohol, Cannabis, Heroine MDMA	Synthetic Cannabinoids, popper, Ketamine Psychedelic Mushrooms	Recreational context	Friends, Smartshop online	Once or twice a year	NO

Profile n. 7						
Age/sex/Job	Drugs used	NPS used	Reason for using	Channels of provision	Frequency of use	NPS provided with other drugs
36, M Employee	Alcohol, Cannabis, MDMA, LSD	Phetylamines, Psychedelic Mushrooms, Salvia Divinorum	Religious motivation	Friends (offered and bought)	Once or twice a year	Yes
Profile n. 8						
Age/sex/Job	Drugs used	NPS used	Context of use	Channels of provision	Frequency of use	NPS provided with other drugs
32, M Freelance	Alcohol, Cannabis, Cocaine, Heroine	Poppers, Psychedelic Mushrooms	Recreational contexts	Friends (offered and bought)	More than three times a week	Yes
Professional	Heroine					
Profile n. 9						
Age/sex/Job	Drugs used	NPS used	Context of use	Channels of provision	Frequency of use	NPS provided with other drugs
32, M Employee	Alcohol, Cannabis, Cocaine, LSD	Psychedelic Mushrooms	Recreational contexts	Offered by a friend in his house.	Once or twice a year	NO
Profile n. 10						
Age/sex/Job	Drugs used	NPS used	Context of use	Channels of provision	Frequency of use	NPS provided with other drugs
27, F Freelance Professional	Alcohol, Cannabis, Cocaine, LSD	Ketamine, Shaboo	Recreational contexts	Offered by a friend in his house	More than three times a week	Yes
Profile n. 11						
Age/sex/Job	Drugs used	NPS used	Reason why NPS are better	Channels of provision	Frequency of use	NPS provided with other drugs
50, M Freelance Professional	Alcohol, Cannabis, Heroine, Cocaine	Ketamine, Synthetic Opioids; Psychedelic Mushrooms, Diet Pills	NPS are less expensive	Offered by a strangers met outdoor	Once or twice a year	NO

Profile n. 12						
Age/sex/Job	Drugs used	NPS used	Reason why NPS are better	Channels of provision	Frequency of use	NPS provided with other drugs
36, F Employee	Heroin, Speed Heroin; Cocaine	Phenethylamines, Ketamine, GHB/GBL, Poppers	NPS are less harmful	Offered	Once or twice a year	NO
Profile n. 13						
Age/sex/Job	Drugs used	NPS used	Reason for NPS use	Channels of provision	Frequency of use	NPS provided with other drugs
22 M Student	MDMA LSD Cocaine	Phenethylamines, Ketamine, GHB/GBL, Shaboo	To have fun, to forget problems	Offered or bought by stranger; smart shop on line	Two or free times	Yes
Profile n. 14						
Age/sex/Job	Drugs used	NPS used	Reason for NPS use	Channels of provision	Frequency of use	NPS provided with other drugs
28 M Unemployed	MDMA LSD Cocaine	Phenethylamines, Ketamine, GHB/GBL, Shaboo	To have fun, to forget problems	Offered or bought by stranger; smart shop on line	Two or free times	Yes
Profile n. 15						
Age/sex/Job	Drugs used	NPS used	Reason for NPS use	Channels of provision	Frequency of use	NPS provided with other drugs
22 M Student	MDMA LSD Cocaine	Phenethylamines, Ketamine, GHB/GBL, Shaboo	To have fun, to forget problems	Offered or bought by stranger; smart shop on line	Two or free times	Yes

# THE MEDIA REPRESENTATION OF THE NPS PHENOMENON: A FOCUS ON ITALY AND THE UK

## Objectives of the mass media analysis

The aim of this study is the analysis of the characteristics of the communication and of the information about NPS and their market in the Italian and English press, in order to provide an overview of how the phenomenon of NPS is portrayed in the national media. In fact, given the important role of the media in the elaboration of social representations<sup>52</sup>, the analysis of the national press can help to draft those factors that are contributing to build the knowledge base and the public opinion on these substances. More specifically, the objectives are:

- + To understand the relevance given to NPS by national media coverage;
- + To collect information about the NPS phenomenon, such as new substances emerging on the market, cases of drug use, criminal investigations;
- + To analyse the level of knowledge emerging from studies and survey published by newspapers;
- + To identify countermeasures and preventive initiatives adopted in the struggle against the phenomenon;
- + To identify parts of the supply chain mainly described by the media: producers, sellers, traffickers and users;
- + To identify main the NPS described plus their main risks and harms;
- + To understand the general viewpoint on NPS legal status emerging from these articles.

## Method and time of data collection

In the Italian context, the analysis has considered newspaper articles selected by a key word search in the archives of the three most read newspapers at national level (excluding economic and sport newspapers)<sup>53</sup>: *Il Corriere della Sera*, *La Stampa*, *La Repubblica*.

The study on the English press has been focused on the newspaper articles from the online versions of “*The Guardian*” and “*The Times*”.

Because of the great variety of names and types of NPS, to collect articles as relevant as possible and in order to study aims, both the specific names of NPS or of groups of NPS, (such as “*Synthetic Cannabinoids*”, “*Synthetic Cathinones*” or “*Mephedrone*”) and more generic terms that can include NPS, such as “*Synthetic Drugs*”, “*Smart drugs*” or “*New drugs*”, were used.

The key words identified were:

- + Novel psychoactive substances (New Psychoactive Substances);
- + Legal highs;
- + Smart drugs;
- + Designer drugs;
- + New drugs;
- + Synthetic drugs (ice - shaboo - crystal meth – bath salts) ;
- + Illegal prescription drugs;
- + Synthetic drugs;
- + Synthetic Cannabinoids;
- + Ketamine;
- + Nandrolone;
- + Mephedrone;
- + Diet pills.

<sup>52</sup> According to Serge Moscovici, Social Representations are “Social representations concerning the contents of everyday thinking and the stock of ideas that give coherence to our religious beliefs, political ideas and the connections we create as spontaneously as we breathe. They make it possible for us to classify people and objects, to compare and explain behaviours and to objectify them as part of our social setting. While representations are often to be located in the minds of men and women, they can just as often be found “in the world”, and as such examined separately. (Moscovici, 1988) In his studies, the author outlines the important role of mass media in the building of social representations (Moscovici, 1973), Höjjer, B (2011) Social Representations Theory A New Theory for Media Research, Nordicom Review 2, pp. 3-16.

<sup>53</sup> The classification of the most widespread newspapers at national level is provided by ADS, Accertamenti Diffusione Stampa, [www.adsnotizie.it](http://www.adsnotizie.it).

Articles spanning a period of five years from January 2010 to October 2015 were searched.

The information collected has been codified in an excel database and categorised under the following variables:

**o) General information**

- + Newspaper name;
- + Publication date of the article;
- + Article title;
- + Type of article.

**p) Subject matter of the article**

**Triggers of the news - the main facts or motivations for the publication of the articles<sup>54</sup>:**

- + Police arrest;
- + Death;
- + Judicial process;
- + Official enquire/investigation;
- + Media initiated investigation;
- + Parliamentary debate;
- + General news on drugs;
- + Government policy announcement/initiative;
- + Research publication/survey;
- + Conference;
- + Publicity Campaign;
- + Opinion Polls;
- + Personal experience;
- + Other.

**The geographical location of the facts:**

- + International;
- + National;
- + Local level.

**The part of the supply chain mainly described:**

- + The substance;
- + The production;
- + The distribution;
- + The dealing;
- + Users.

**Concerning the subject matter of the articles, more details have been collected:**

- + other names or nicknames of substances;
- + description of the main characteristics, harms and risks emerging from articles.

**q) Viewpoint of the article author**

- + Approving of legalization
- + Not approving of legalization
- + Not specified.

**The analysis**

The collected information has been analysed with a mixed method using quantitative and qualitative tools. The information codified in the excel spreadsheet has been elaborated both through a quantitative analysis and thematic analysis. Statistic elaboration has included frequency analysis and contingency analysis such as: distribution of articles by year of publication, distribution of articles by type of articles, by triggers of the news, by keywords, distribution of type of articles by triggers of the news, distribution of parts of the supply chain described by keywords. Thematic analysis has mainly concerned the description of characteristics of NPS emerging from articles.

Then, the analysis examines the following topics:

- + Distribution of articles collected from national newspapers and by year of publication;
- + Types of articles;
- + Triggers of the news concerning NPS;
- + Keywords recurring in the articles and of specific names of NPS mentioned in the articles;
- + Parts of the supply chain described;
- + Main harms and risks of substances emerging from articles;
- + The viewpoint on NPS legal status emerging from the articles.

<sup>54</sup> The triggers were elaborate on the basis of the suggestions from the UK Drug Policy Commission. Loughborough Communications Research Centre (2010), Representations of Drug Use and Drug Users in the British Press. A Content Analysis of Newspaper Coverage, The UK Drug Policy Commission, London.

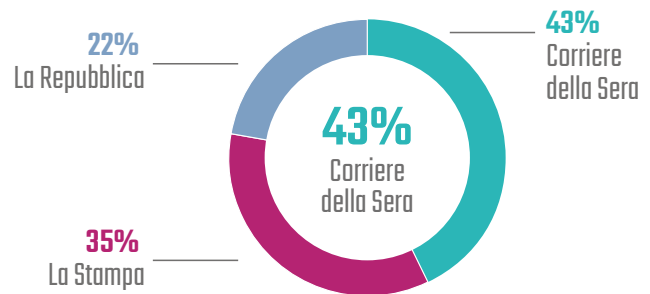
## RESULTS FROM THE ITALIAN MASS MEDIA ANALYSIS

### Distribution of articles collected by newspapers and years of publication

Newspaper articles selected from January 2010 to October 2015 from the archives of the “La Stampa”, “La Repubblica” and “Il Corriere della Sera” are in total 447.

Most articles collected are from “Il Corriere della Sera”<sup>55</sup>, with 193 articles (43.2%), followed by “La Stampa” with 154 articles (34.4%) and then “La Repubblica” with 100 articles (22.4%).

**FIG. 01. DISTRIBUTION OF ARTICLES FROM 2010 TO 2015 BY NEWSPAPERS**

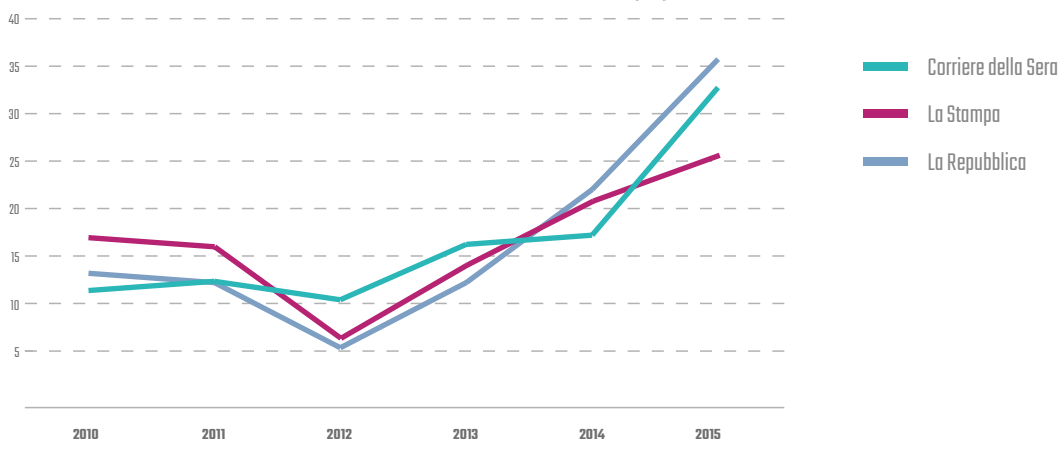


**TABLE 1. NUMBER OF ARTICLES BY NEWSPAPER AND BY YEAR OF PUBLICATION; FIG. N. 1 DISTRIBUTION OF ARTICLES BY NEWSPAPERS**

Year of publication	Il Corriere della Sera	La Stampa	La Repubblica	TOTAL
2010	22	26	13	61
2011	24	25	12	61
2012	20	10	5	35
2013	30	21	12	63
2014	33	32	22	87
2015	64	40	36	140
<b>TOTAL</b>	<b>193</b>	<b>154</b>	<b>100</b>	<b>447</b>

Looking at the frequency of articles published by year, (Fig. 1) the trend of the number of articles published from 2010 is almost the same for all three newspapers: there is a decrease in the level in 2011 and mostly in 2012, then a significant growth from 2013 to 2015.

**FIG. 02. DISTRIBUTION OF ARTICLES BY YEAR OF PUBLICATION (%)**



<sup>55</sup> The high number of articles published by Corriere della Sera is due to the multimedia campaign launched by the newspaper in 2015 to increase information and raise awareness of NPS and new drugs titled “#nonsaidichetifai (you don’t know how you get high). For the campaign Corriere della Sera was provided with articles, in depth scientific analysis and supplementary worksheets on substances.

Many articles published in 2013 refer to the spread of the online market in drugs and to the new drugs circulating around this channel. Moreover, between 2012 and 2013 many studies described the consequences of the economic crisis on the drug market that led to a decrease of the use of traditional drugs and to a new interest in new types of synthetic drugs available at a lower cost on the market<sup>57</sup>.

In 2015 some deaths of young users of synthetic drugs, specifically MDMA, in recreational contexts, caused a broad debate on the use of drugs by young people widely reported in the media.

### Types of articles concerning NPS

This analysis of article type gives us an idea of the importance and of the level of detail that national newspapers dedicate to this social phenomenon.

#### This study has considered the following types of articles:

- + **News** are referred to articles describing a fact or an event as it is happened;
- + **Investigative reports** are based on research, testimony, and analysis of a phenomenon or event carried out by journalists;
- + **Interviews with experts** present the personal opinion of experts interviewed about a fact or event;
- + **Research articles** indicate articles widely presenting data and information from surveys and studies carried out by official institutions or universities;
- + **Editorials/comments** show the point of view of the authors about a specific topic;
- + **Conference Summaries** refer to articles describing the main themes and topics emerging from institutional meetings;
- + **Book/Product reviews** express the point of view of the writer on a book, a movie or other types of products.

From the analysis of the newspapers it emerges that a great many of the articles on drugs are “news” for a total of 352 articles (78.7% of total articles), followed by a much lower number of investigative reports (5.1%; N. 23), and interviews with experts (4.9%; N. 22). Almost the same number of articles are represented by research articles (4%, N. 20) and editorials or comments about the phenomenon (3.8%; N. 17). A few articles concern conference summaries (1.6%; N. 7) or reviews of books or movies (1.3%; N. 6)

FIG. 03. DISTRIBUTION OF ARTICLES BY TYPE (%)

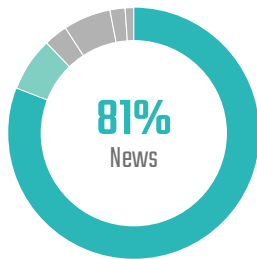


<sup>57</sup> The main trigger of these news was the death in August 2015 of a teenager who took an high dosage of MDMA in a well known Italian disco, Corriere della Sera, 2 August 2015.



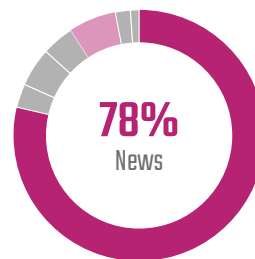
Looking at the comparison between the three newspapers, it emerges that all types of articles are nearly equally distributed among them: the Corriere della Sera is the newspaper with the highest number of news articles: they make up 81% of the articles, followed by 78% of the articles from La Stampa and 76% of the total articles from La Repubblica.

**FIG. 04. DISTRIBUTION OF ARTICLES BY TYPE IN CORRIERE DELLA SERA (%)**



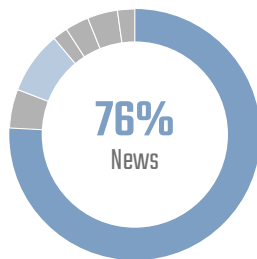
7% Investigative Report  
6% Research article  
3% Interview to expert  
2% Editorial / Comment  
0% Conference Summary  
1% Book / Product review

**FIG. 05. DISTRIBUTION OF ARTICLES BY TYPE IN LA STAMPA (%)**



3% Investigative Report  
5% Research article  
4% Interview to expert  
6% Editorial / Comment  
2% Conference Summary  
1% Book / Product review

**FIG. 06. DISTRIBUTION OF ARTICLES BY TYPE IN LA REPUBBLICA (%)**



5% Investigative Report  
8% Research article  
2% Interview to expert  
3% Editorial / Comment  
4% Conference Summary  
2% Book / Product review

Compared to La Stampa and La Repubblica, the Corriere della Sera carried more investigative reports and research articles (respectively 7% and 6%), while La Stampa had more editorial comments (6% of articles compared to the 2% and 3% of Corriere della Sera and La Repubblica), and La Repubblica had more Conference Summaries (4%).

This data shows that information on NPS, excluding investigative reports presented by the Corriere della Sera, is mainly characterized by a low level of detail and mostly concerned with the description of facts or events without the support of in-depth analysis or opinions about the phenomenon.

### News triggers

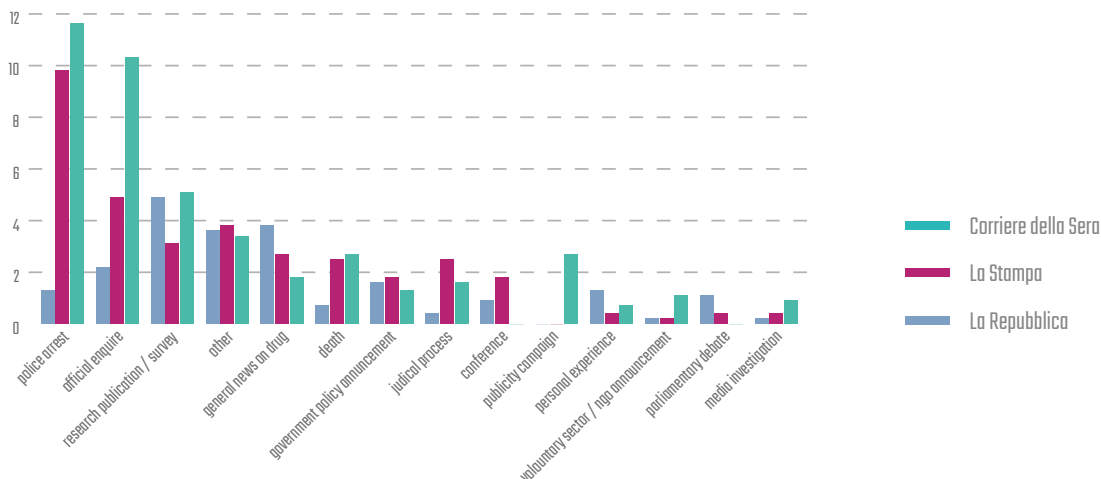
The classification of articles by news triggers helps our understanding of the types of factors driving the publication of an article. To explore if NPS are mostly featured in articles concerning certain facts, such as police arrests and deaths, or regarding studies and institutional initiatives, is interesting in order to understand which themes and topics are representing the phenomenon of NPS.

Police Arrests are the main facts that lead to the publication of an article: 22.8% of articles refer to these events, followed by official enquires (17.45%). It means that newspapers give most space to law enforcement activity. The third trigger concerns research publications, with 13.2% of articles. Very few articles are dedicated to media investigations and to parliamentary debates on drugs (both at 1.5%). The low percentage of media coverage of parliamentary debates suggests that in Italy, over the last few years, the main issue which has captured national attention is the legislative disputation of the distinction between hard and soft drugs, rather than the regulation of new drugs emerging on the market.

The category “Other” (10.7% of articles) includes triggers concerning:

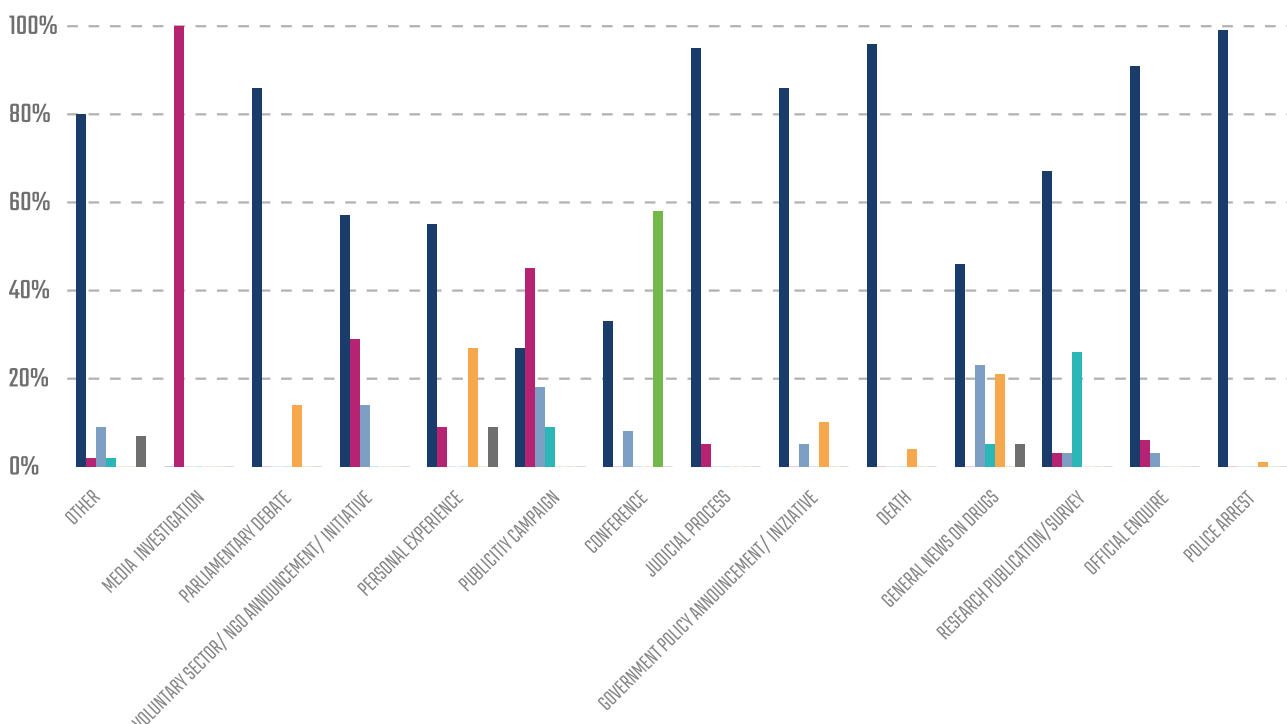
- + Cases of intoxication from substances;
- + Institutional local initiatives on drug prevention;
- + Health Services initiatives.

FIG. 07. DISTRIBUTION OF ARTICLES BY TYPES OF TRIGGERS IN THE NEWS (%)



99% of the articles which are triggered by police arrests are news, while 1% are represented by comments. The same is true for articles triggered by deaths and by official enquires: respectively 96% and 91% of them are news. Data referring to articles triggered by the publication of research or surveys shows that most of them are news (67%) and only 26% are research articles. It means that, even if data from surveys and studies carried out by official institutions or universities are often reported by newspapers, they are rarely described and commented on in articles. Publicity campaigns are events that have led to the publication of different types of articles: 45% of them are investigative reports, 27% are news, 18% regard interviews with experts and 9% are research articles. This data mainly refers to the already cited multimedia campaign launched by the Corriere della Sera #nonsaidichetifai. General News on drugs are the main triggers of news (46%), of interviews with experts (23%) and of comments or editorials (21%). Data concerning the type of articles having Parliamentary debates as triggers confirm what expressed above: not only the legislative disputations on NPS cover restricted space in the Italian press, but also the level of analysis provided is limited.

FIG. 08. TYPE OF ARTICLES BY TRIGGERS OF THE NEWS (%)



### Keywords recurring in articles newspapers

As said in the introduction, keywords identified for the search are represented both by the names of NPS and by more generic terms indicating the market of new synthetic drugs. Specific names identified are: Ketamine, Synthetic Cannabinoids, Synthetic Cathinones, Nandrolone, Mephedrone. This last NPS, even if already included in the group of Cathinones, has been used as a keyword, as it was one of the first and most important NPS to appear on the international market.

25.7% of the total articles contain the term "Synthetic Drugs" (N. 115), closely followed by Ketamine (25.5%; N. 114) and "New Drugs" (24.6%; N. 110).

**Ketamine** is the main specific substance cited in newspapers, in particular in the Corriere della Sera: it is included both in articles dealing with new drugs, and in articles concerning traditional drugs, such as Cannabis, Heroin and Cocaine. This is due to the fact that, in Italy, Ketamine use has undergone a large increase since the 90's, particularly in recreational contexts, and the growth of its demand has driven the interest of organized crime - particularly where its trafficking is concerned<sup>58</sup>. This has led to more media attention.

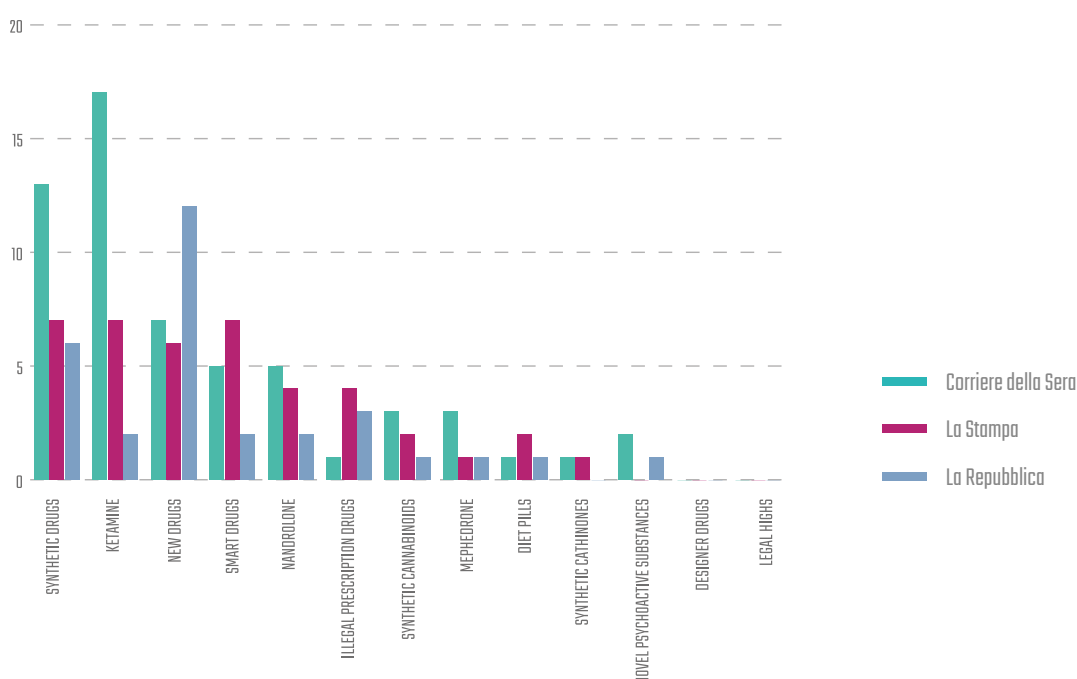
The second specific substance most cited in the newspaper articles is **Nandrolone** (10.9% of articles reported information of this substance), a New Psychoactive Substance used by sportsmen and bodybuilders. Italian newspapers give a large amount of space to news concerning sport and the phenomenon of doping.

Specific groups of NPS, such as **Synthetic Cannabinoids** and **Synthetic Cathinones**, are less often reported in newspaper articles, they are respectively mentioned in 6% and 3% of articles. In comparison, data concerning articles on Mephedrone (5.4%), confirms that since 2010 this NPS has had a great attention from the media as one of the first substances which appeared on the market as a substitution for illegal drugs.

The expression **Novel Psychoactive Substances**, is rarely cited in newspaper articles (3% of articles) and this fact is surprising, as the term is specifically used by the international scientific community to define specific groups of substances not controlled at an international level.

Also **Legal Highs** (0.4%) and **Designer Drugs** (0.8%) rarely recur in the Italian newspapers: these expressions probably are more often used at an international level.

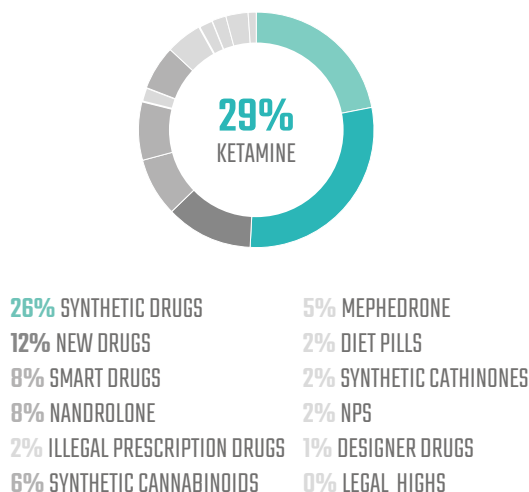
FIG. 09. DISTRIBUTION OF KEYWORDS IN ARTICLES (%)



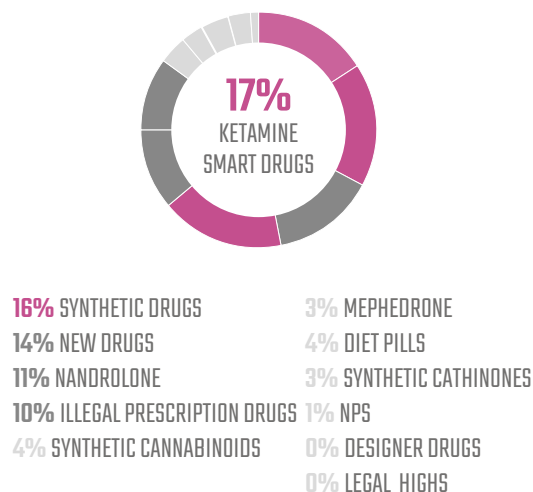
<sup>58</sup> Cf. G. Vidotto Fonda, Ketamina. Stili di Consumo, Franco Angeli, Milano, 2013

87 of 447 articles (19% of articles) were identified with two or more Keywords. In particular, the keywords most often associated are: “New drugs” with “Synthetic”, and “Synthetic Drugs and Smart Drugs”. Specific names such as “Synthetic Cannabinoids” most often appear with keywords indicating generic names such as “New Drugs”, or Novel Psychoactive Substances”.

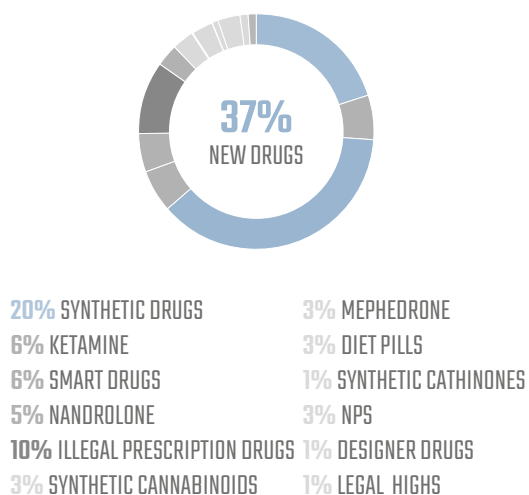
**FIG. 10. DISTRIBUTION OF KEYWORDS IN THE CORRIERE DELLA SERA ARTICLES (%)**



**FIG. 11. DISTRIBUTION OF KEYWORDS IN LA STAMPA ARTICLES (%)**



**FIG. 12. DISTRIBUTION OF KEYWORDS IN LA REPUBBLICA ARTICLES (%)**



Finding associations between keywords recurring together in the three newspapers allows us to see that the Corriere della Sera is the newspaper that most often published articles referring to specific names or groups of NPS: Synthetic Cannabinoids recur in 6% of articles (compared to the 4% of articles from La Stampa and in 3% of articles from la Repubblica). La Repubblica is the newspaper that most uses the term “New drugs” (37% of articles compared to 29% of Corriere della Sera e 14% of La Stampa). This suggests the idea that in this newspaper NPS are rarely specifically described as a group of substances differentiating from other new drugs, but La Repubblica is also the only newspaper in which appears, in a very low percentage (1%), the name “legal highs”, maybe the most appropriate international term that indicates the peculiarity of the legal status of these substances.

La Stampa in comparison to other newspapers most often uses the name “smart drugs” (17% of articles compared to 8% in the Corriere della Sera and 6% in La Repubblica). This term, contrary to the term ‘legal highs’, has been used since the 90’s to indicate new drugs emerging on the market.

### Specific names of NPS included in the keywords

Through the searching of articles by generic keywords, such as Synthetic Drugs, New Drugs and Smart Drugs, many different names and nicknames of more specific NPS have been identified. They mainly regard Synthetic Cannabinoids including: N-Joy, Spice, Bonzai, Forest Green, Ketama, Gold, Hurricane, Artic Synergy, Jamaican Gold, Bonzai Citrus, Blaze, Intensive Shot or Mojo. These names appear mainly in articles published in 2015 describing the distribution of these substances via the Internet or in smart shops.

Other names and nicknames identified with the term Synthetic Drugs refer to Synthetic Cathinones: MDPV, M-Cat, 4-mec, Harmony. MDPV appear mostly in articles published in 2014 concerning police arrests and investigation on these new drugs emerging mainly in Milan and in the North of Italy. Meow-Meow appears in 2010 and then in articles published in 2015 and concerns alarms launched by Law Enforcement Agencies against the new drug at an international level.

Generic keywords rarely include the specific names of the other group of NPS, such as Synthetic Opioids

(MT45 or Krokodile), or Phenethylamines (2CB or Nexus, 2-CT7 or Blue Mystic, and N Bomb or Smile). MT-45 was cited in an interview to an expert. Krokodile is a substance described in articles published between 2013 and 2014 as a new dangerous drug coming from Russia.

The keywords, “Smart Drugs” and “New Drugs” often include plant based substances: salvia divinorum, Kratom, Argemone mexicana, Brugmansia arborea, Datura stramonium, Muira puama, Piper methysticum and Turnera Aphrodisiaca.

Moreover, included under the keyword “New drugs” are the new amphetamines and methamphetamine-like substances, not specifically included in the other groups of NPS: Kfen, Flakka, Mojo, Shaboo, Facebook Pills, Molly, Zinny. Kfen, Flakka and Shaboo are substances cited mostly for their use and distribution in the Chinese community.

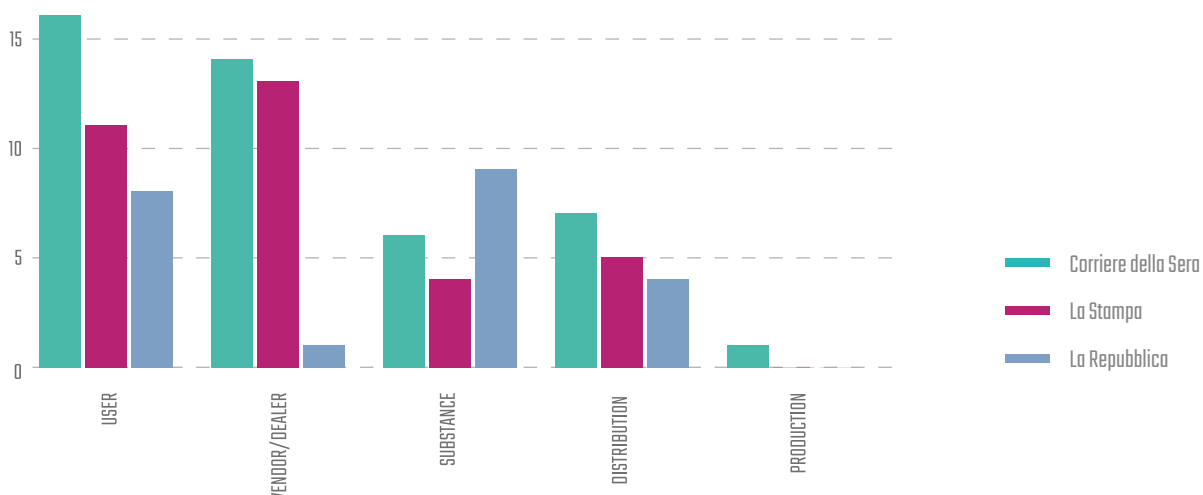
Some specific names of diet pills are included in the articles: Triac, Metformina, Clorazepate and Bupropion are substances that in 2015 have been taken under legislative control; Mhat-80 and Rimonabant appear in an article concerning their distribution on line.

### Parts of the supply chain described in the article

The articles have also been examined taking in consideration the analysis of the parts of the supply chain of NPS mainly described.

As shown in Figure 13, 35%(N. 155) of articles identified in the search concern information about drug users, followed by articles regarding dealers (28%; N. 125) and substances (19%; N. 85). Few articles include descriptions of the distribution (17%; N. 77) and the production (1%; N.5) of the substances. Articles providing information on distribution mainly refer to news of drug seizures followed by official enquires taking place in Italy, in particular in the North and to news regarding the market of new drugs on Internet. The low percentage of articles arguing about the production shows the lack of knowledge and information on this part of the supply chain.

**FIG. 13. DISTRIBUTION OF ARTICLES BY PART OF SUPPLY CHAIN DESCRIBED (%)**

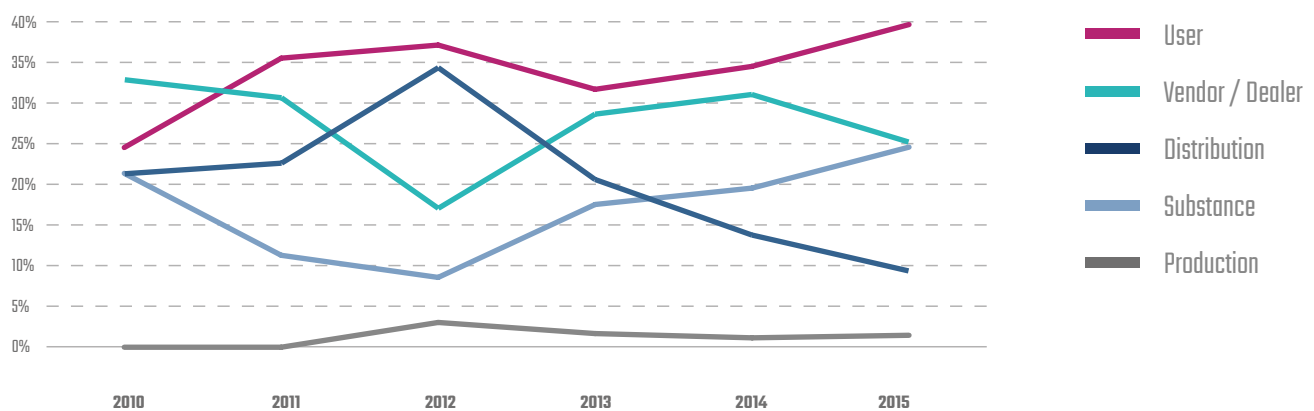


As shown in Fig. 14, information provided by newspapers since 2010 about drug users has constantly increased: this is probably due to the fact that, in the last years, data has been provided by some new studies carried out by official institutions and research centres<sup>59</sup>, but also because the first cases of intoxication and deaths related to NPS occurred in Italy at this point.

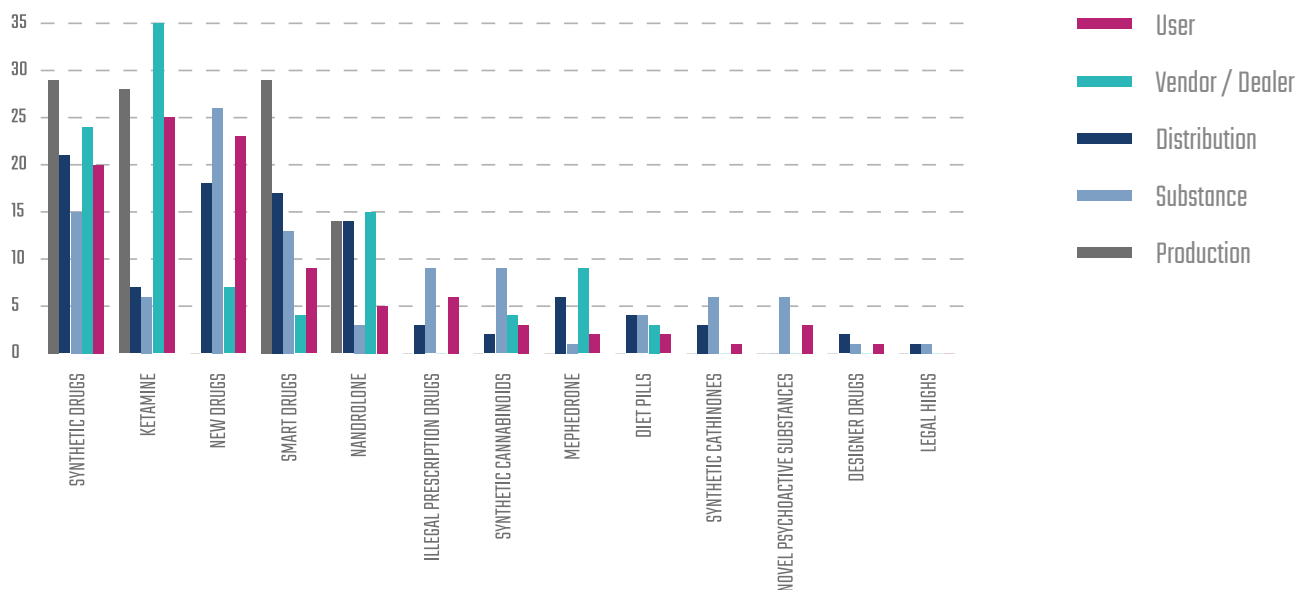
In the same way, between 2013 and 2015, the growth of articles focusing on substances, show an increase of attention in the last few years by the press on the identification and description of new drugs emerging on the market. In fact, many articles report data provided by the national and international Early Warning Systems on NPS.

The distribution of drugs seems to be mainly described between 2011 and 2013, while some more information about the production has been provided mostly in 2012 and 2015.

**FIG. 14. DISTRIBUTION OF ARTICLES BY TYPE OF SUPPLY CHAIN DESCRIBED BY YEAR OF PUBLICATION (%)**



**FIG. 15. PARTS OF SUPPLY CHAIN BY KEYWORDS (%)**



<sup>59</sup> In Italy the ESPAD Study, has included the national survey on drugs among students specifying the names of NPS, such as Spice since 2013.

As shown in Figure 9, articles describing the **users** mostly concern Ketamine (25% of articles), New Drugs (23%) and Synthetic drugs (20%). This can be due to the fact that, in Italy, few surveys collect data about the use of specific NPS. More often official studies from Institutional Centres include NPS in the more general term “Synthetic Drugs”.

When articles contain the names of more specific groups of NPS, such as Synthetic Cathinones and Synthetic Cannabinoids, they mainly concern information provided by single cases of user intoxication or interviews with experts from the Health Services or other institutions as representatives of the Italian Department for Anti-Drug Policies. Information about users rarely derives from the expertise of operators of harm-reduction services. It can be understood that the national press rarely gives space to the drug user's point of view and that most users are described as naïve and inexperienced people, unaware of the risks and the possible harm that these drugs could do them.

Articles containing the description of the parts of the supply chain concerning the **dealing** of drugs mostly refer to Ketamine (35%). In these cases, the name of this substance appears in articles associated with other traditional illicit drugs, in particular Cannabis, Cocaine and Heroin.

Articles concerning information about the dealing of Synthetic Drugs (24%), mostly regard Amphetamines, MDMA and Ecstasy, sold in recreational contexts such as raves, discos and clubs.

A relevant number of articles refer to the dealing of Nandrolone (15%).

As it appears from these articles, this substance is sold alongside other anabolic agents or illicit prescription drugs and circulates mostly among bodybuilders and doctors or pharmacists.

Few articles concern the selling of specific NPS: the most cited substances are some specific Synthetic Cannabinoids, such as Forrest Green, Spice, Ketama Gold, and Mephedrone.

When articles focus on the **Substances**, they mostly describe the characteristics and effects of the New Drugs (26%), Synthetic Drugs (15%) and Smart Drugs (13%).

Articles identified with the keyword ‘Synthetic Cannabinoids’ (9%), also often contain descriptions of other NPS, such as Cathinones, Phenethylamines, Tryptamines and Opioids, but Synthetic Cannabinoids remain the group of NPS described in most depth.

Information emerging about the **distribution of drugs** mainly concerns the traffic of Synthetic Drugs (21%) and New Drugs (18%) via the Internet and in smart shops: this group of substances includes some NPS, in particular specific Synthetic Cannabinoids, such as N-Joy, Spice and Hurricane, but also Krokodile, Mephedrone and some other Cathinones as 4-MEC. Articles about the distribution of these substances via the Internet describe this channel of provision as dangerous because of the unknown characteristics of the substances sold and for the easier availability of drugs at low cost in comparison with traditional means of distribution.

Fewer articles concern the distribution of Ketamine (7%): in these cases where the articles do occur it emerges that the importation of these substances is from the Eastern Countries such as India, and the involvement of Chinese organized crime in this activity.

As shown before, only 5 articles (1%) regard information about the **production** of substances: news provided mainly concerns the production of Synthetic Drugs in China; regarding Smart Drugs, 3 articles focus their attention on the self-made production of these substances by students or chemists.

### Main harms and risks emerging from articles

As shown before some articles focus their attention on the description of the NPS and on their affects and the harm caused related to their use.

The first more general characteristic associated with NPS is the danger related to the fact that, being for the most part legal, their legality can be confused with a perception of safety about the harms and related effects.

NPS are mainly described as dangerous because they include diverse chemical components whose effects are unknown, unexpected and often underestimated by users.

When articles regard specific groups of NPS, such as, Synthetic Cannabinoids, Cathinones, Tryptamines and Phenethylamines, more detailed information is provided in investigative reports or research reports, while substances such as Ketamine, GHB and GBL often are described in articles related to facts or news that give general and sometimes confusing information about their effects.

Being that most of the articles on NPS in the news report facts or synthetic data, not all articles provide a detailed description of the substances. Mainly, the characteristics on specific NPS provided by newspaper articles, concern the following substances:

#### + Ketamine

this substance is described with an alarming tone mostly in news related to the deaths of users or about the police arrest of dealers. The main effects illustrated are: amnesia, confusion, dissociations and hallucinations. Some articles indicate Ketamine as a date-rape drug, causing confusion with other drugs, such as GHB and GBL. Sometimes Ketamine is also called the 'Zombie Drug' because of its dissociative effects.

#### + Synthetic Cannabinoids

their effects are described as much stronger than natural cannabis with expressions such as "irreversible damage". Effects reported are the loss of sensibility of arms or legs, euphoria followed by depression and paranoia. A relevant characteristic underlined by articles refers to the fact that these substances are not detected by normal drug screening tests. Sometimes articles describing Synthetic Cannabinoids associate characteristics of these NPS to natural cannabis, not focusing their attention on the differences between the two substances. Many cases of intoxications are reported about Synthetic Cannabinoids.

#### + Synthetic Cathinones

they are described as bath salts easily available via Internet channels. But the danger related to these NPS in particular concerns the fact that these products often contain substances that are different to those listed on the packaging. Synthetic Cathinones are described as having effects similar to, but more powerful and long-lasting than cocaine.

#### + Mephedrone

is mainly described as a drug able to enhance a person's capabilities and as a powerful synthetic drug able to modify the perception of reality. Many and adverse effects are described as present with this drug

#### + Diet Pills

many articles describe the dangerous effects of these products that present a variety of substances often unknown to users. Mainly effects described as: vomiting, lack of memory, damage to organs and addiction which can lead to suicide..



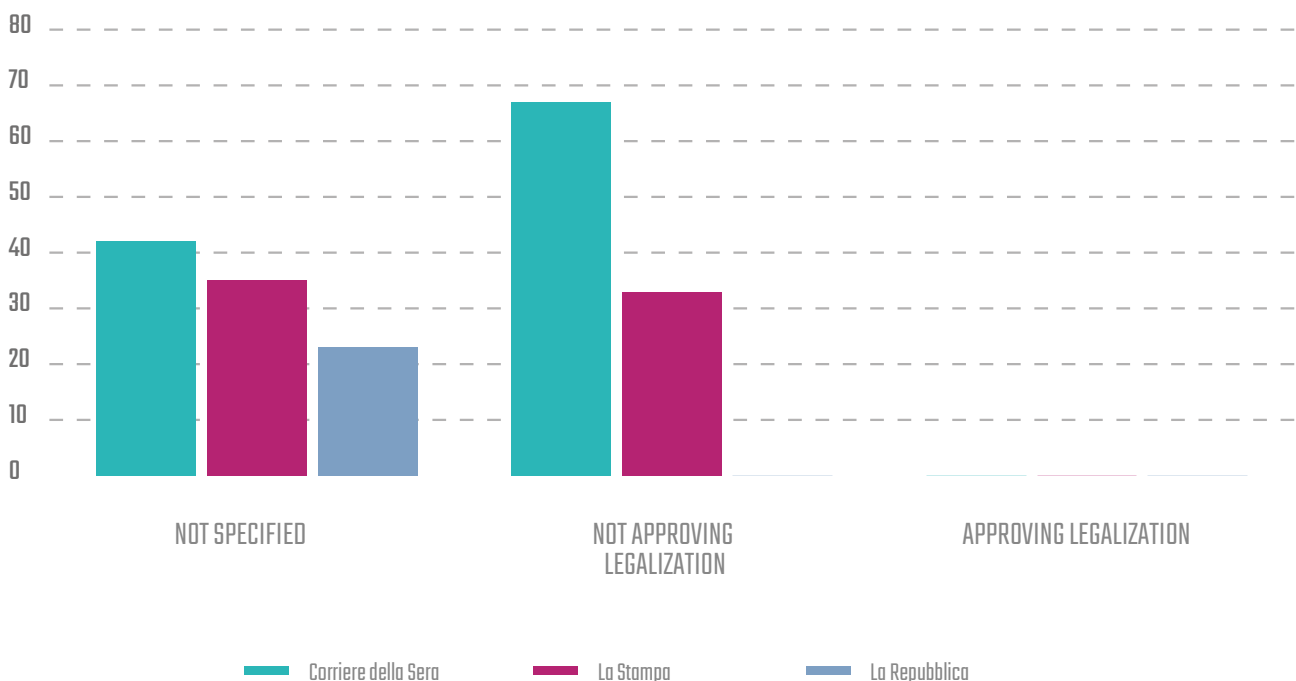
### The viewpoint on NPS legal status emerging from these articles

As shown in the following figure (n.17) most authors of articles published in Italian newspapers don't express a specific point of view about the legalization of NPS: most articles don't specify a point of view (N. 406), few articles express a negative opinion about legalization (N. 33), and no authors approve legalization.

In fact, most of the articles are news reports including facts about the drugs, little space is given to

editorials or comment that openly expresses a point of view about the legalization of NPS. Nevertheless, the articles published often report the point of view of official representatives of public institutions, who mostly do not approve of the legalization of NPS. When authors express a point of view about the legalization, the attention is focused on the priority of banning substances that are too easily available via Internet channels.

**FIG. 16. DISTRIBUTION OF ARTICLES EXPRESSING A VIEWPOINT ON NPS LEGAL STATUS**



Few articles openly discuss the legalization of NPS, more generally they carry an alarming tone that heralds the spread of these substances which are described as dangerous and powerful and implicitly suggests an opinion adverse to legalization.

## RESULTS FROM THE UK MASS MEDIA ANALYSIS

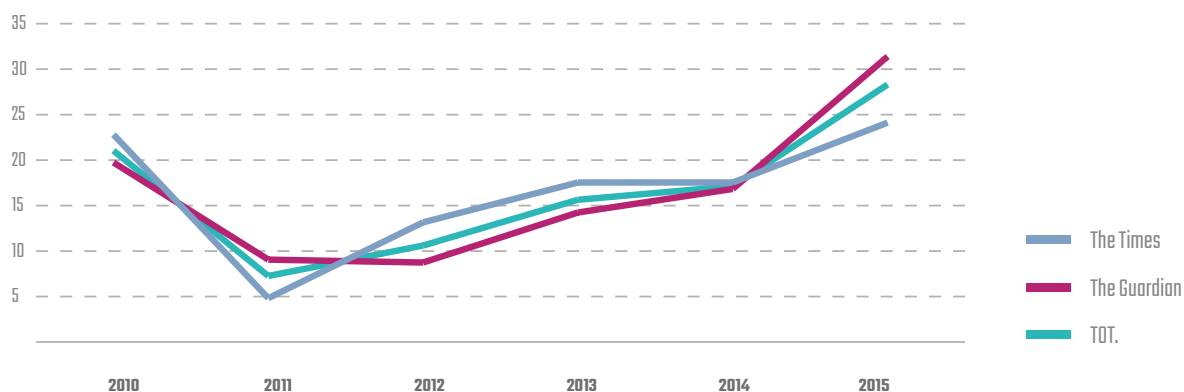
### Distribution of articles collected by newspapers and the year of publication

The research gathered 537 articles, 309 from The Guardian's archive and 228 from The Times archive.

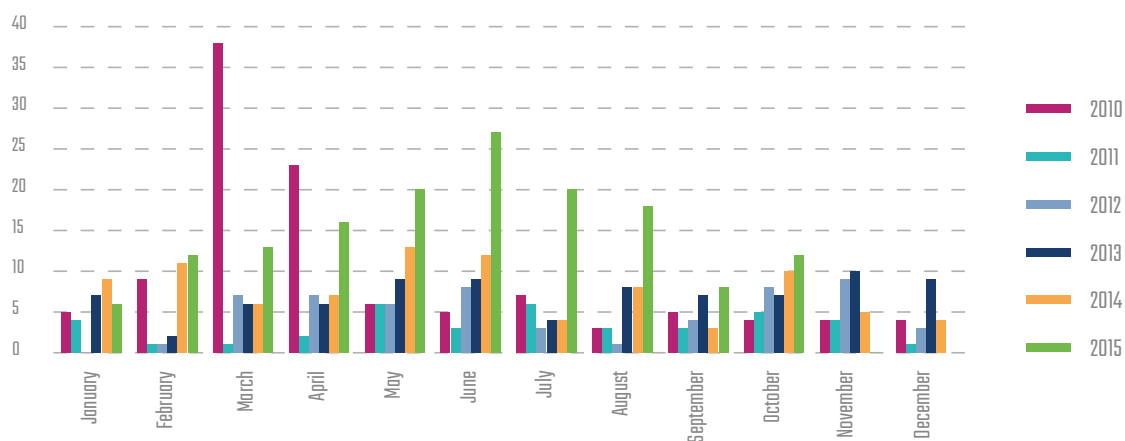
As shown in Fig. 1 both newspapers have the same trend: there is a high concentration of results in 2010, a significant decrease in 2011 and a gradual rise in media coverage until 2015.

In order to analyse these two significant concentrations the articles have been sorted by month of publication (fig. 2).

**FIG. 1. DISTRIBUTION OF ARTICLES BY YEARS**



**FIG. 2. DISTRIBUTION OF ARTICLES BY MONTH**



The results have almost a regular distribution across the years except for two high concentrations at the beginning of 2010 and in the middle of 2015. In the boxes below focus on 2010 and 2015 distribution of articles are provided.

### Box. 1: Distribution of articles from March to April 2010

The high concentration of articles between March and April 2010, is mostly due to the publication of articles concerning Mephedrone (fig. 3).

The attention concentrated on Mephedrone is connected to the tragic death by overdose of two teenagers, Louis Wainwright (18 years old) and Nicholas Smith (19 years old) who on Monday 15th May 2010 were found dead after a night out. The drugs they had taken during the night seemed to be the cause of their deaths. Mephedrone in particular was blamed.

The public were shocked by the event and claimed that the government act to stop the spread of such a dangerous substance which was still legal at the time. The English media launched a strong campaign to ban Mephedrone. Even the authorities claimed Mephedrone should be banned.

The ACMD (Advisory Council on the Misuse of Drugs), an independent expert body that advises the government on drug-related issues in the UK, was required to make a recommendation to the Government about the danger of Mephedrone. The ACMD was subject to a mass resignation by the independent experts in order to protest against the political pressure to ban Mephedrone long before any scientific evidence was available. Mephedrone was banned in April 2010 anyway.

Results of the post-mortem exams in June revealed that the teenagers had not consumed Mephedrone, their deaths were in fact caused by a mix of alcohol and methadone. The main event which led to the ban of Mephedrone was in fact not related to it.

The Guardian and The Times took part in the public debate about Mephedrone: figure 4 shows that there was a higher presence of articles approving prohibition in The Times while The Guardian had a well-balanced view with a slight majority of articles approving legalization.

FIG. 3. DISTRIBUTION OF KEYWORDS FROM MARCH TO APRIL 2010

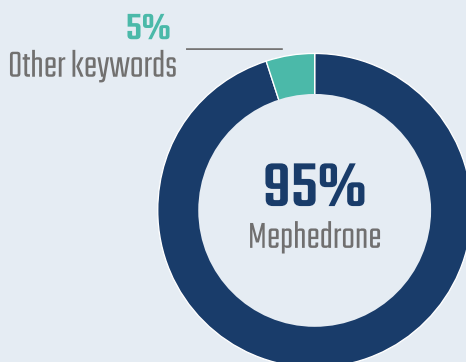
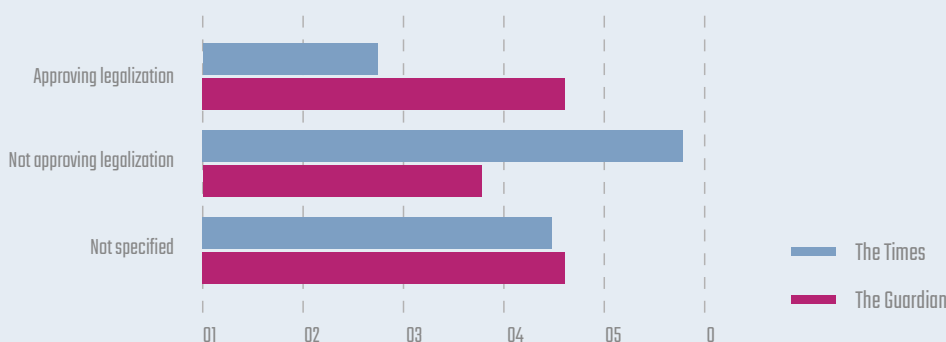


FIG. 4. VIEW ON LEGALIZATION IN ARTICLES CONCERNING MEPHEDRONE FROM MARCH TO APRIL 2010



### Box. 2: Distribution of articles in Summer 2015

Another high concentration of articles concerning NPS occurred in the period between April and August 2015. As shown in fig. 5 the topics of interest are NPS related subjects, diet pills and crystal meth.

Fig. 5. Distribution of Keywords in summer 2015.

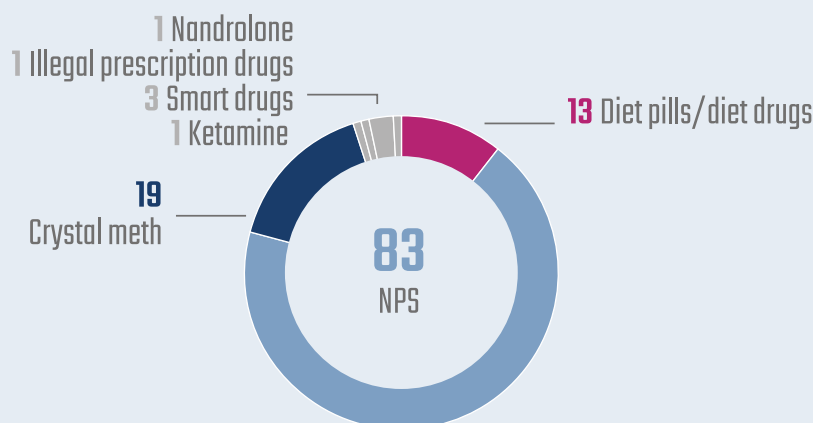
\*The following keywords were searched for: legal highs, synthetic cannabinoids, spice, bath salts, designer drugs, novel psychoactive substances, new drugs.

The high media coverage is caused by different unrelated events: the death of Aimer Parry due to an overdose of diet pills bought online (10.74%) and the government announcement of a blanket ban to tackle the spread of NPS lead by Theresa May (71.1%); this controversial repressive law had been prompted by the public debate about spread of NPS.

Several articles are about spread of crystal meth in Australia where The Guardian has a local online presence (15.7%).

**FIG. 5. DISTRIBUTION OF KEYWORDS IN SUMMER 2015.**

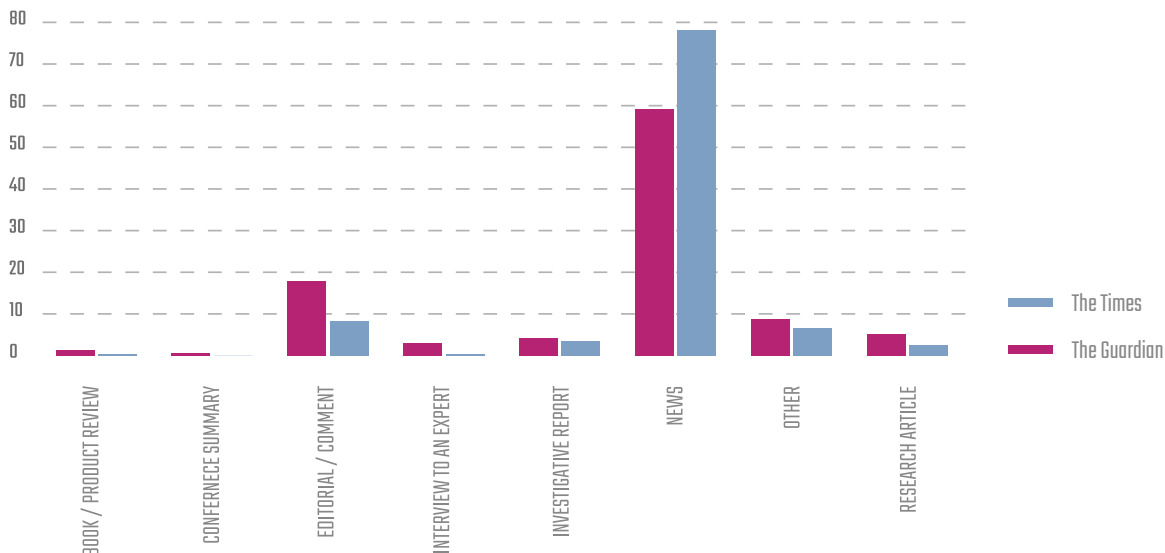
**\*THE FOLLOWING KEYWORDS WERE SEARCHED FOR: LEGAL HIGHS, SYNTHETIC CANNABINOIDS, SPICE, BATH SALTS, DESIGNER DRUGS, NOVEL PSYCHOACTIVE SUBSTANCES, NEW DRUGS.**



### Types of articles concerning NPS

NPS trading is mainly depicted through news: 361 articles - 67% of the total have been categorized as this type, followed by a much lower number of investigative editorials and comments (13.8%) and other types of articles (7.8%). Other types include mainly letters to the journal and brief report summaries.

**FIG. 6. DISTRIBUTION OF ARTICLES BY TYPE**



As shown in fig. 7 there are some differences between the two newspapers: while The Times' vast majority of articles are news, The Guardian gives more attention to comment articles (17.8%): their attention is focused both on the depiction of and reflection on the phenomenon.

This data shows that information on NPS, is mainly provided by articles with a low level of detail and little space is given to in-depth analysis, even if, the significant presence of editorial and comments suggests that NPS is a quite a relevant topic for debate in UK.

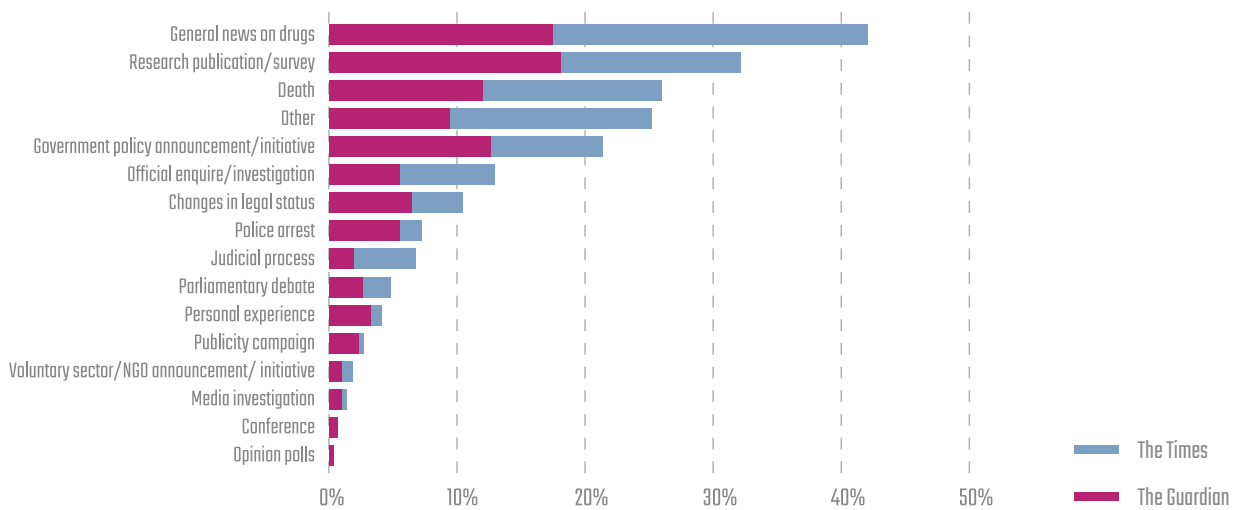
### Triggers of the news

The main triggers in both newspapers (fig. 8) are general news on drugs (42% of articles) research publications (32%), death and others (26%).

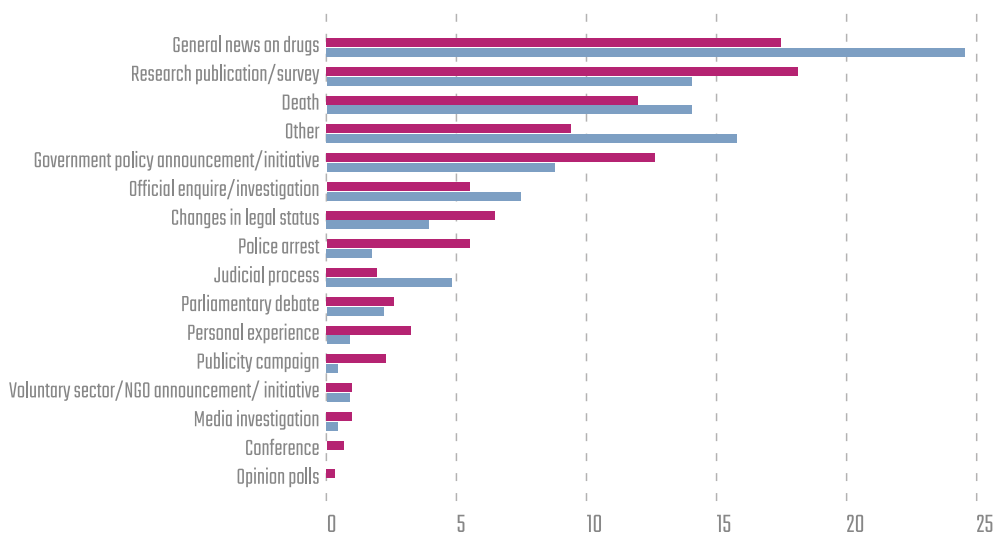
Articles concerning research publications are mainly news items reporting data and results from official institutions such as the UNODC and the EMCDDA. Some other articles present results from academic, medical and psychological studies on the characteristics and effects of the substances on users.

Triggers about "death and others" included mostly non-lethal intoxications, public figure statements and crime episodes like aggressions. Cases of death are mainly related to the use of Mephedrone, Diet Pills and Ketamine.

Few articles concern Media Investigations (1.4%), Conference Summaries (0.65%) and Opinion Polls. As shown in the figure below, these two last types of triggers only concern articles from The Guardian. Media Investigations mainly come from The Guardian and concern a focus on the popularity of Mephedrone among clubbers and the production of Synthetic Drugs in Chinese laboratories.

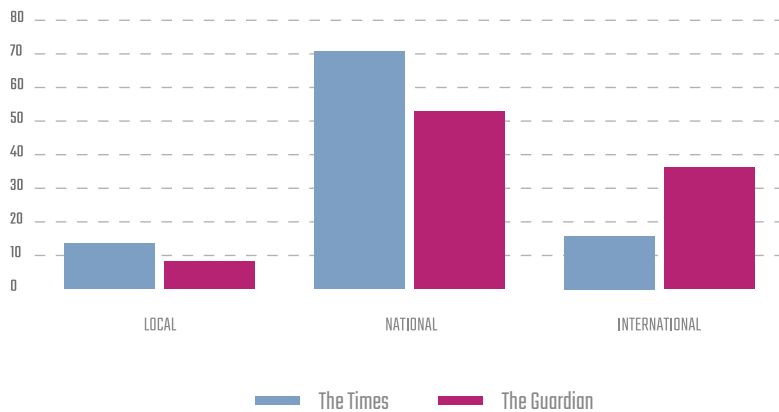
**FIG. 7. DISTRIBUTION OF ARTICLES BY TRIGGERS**

Moreover, a few articles are about police arrests (7.2%) and judicial process (6.7%): this data can be due to the fact that NPS easily escape the law and there are only few prosecutions against NPS trading.

**FIG. 8. ARTICLES SORTED BY TRIGGERS - COMPARISON**

The comparison between the two newspapers indicates that The Times focuses more on general news on drugs and death cases while The Guardian gives more attention to research publication, surveys and government policies. It follows that The Times considers and represents NPS mainly like a crime phenomenon while The Guardian gives more attention to the political implications.

FIG. 9. ARTICLES SORTED BY LOCATION

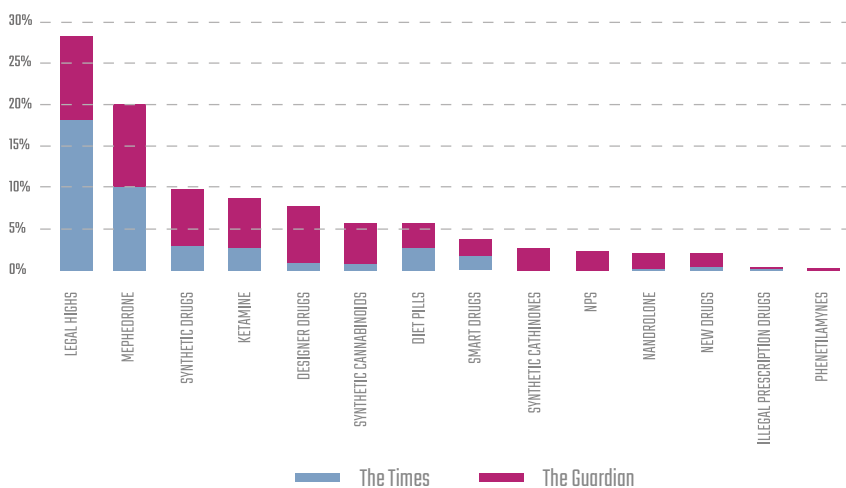


### Keywords recurring in articles newspapers

The most relevant keywords (fig. 6) recurring in articles are “legal highs”, (recurring in 26.8% of the articles), followed by “Mephedrone” (19%), and “Synthetic drugs” (12.7%).

The term “Legal Highs” is mostly used by The Times, while The Guardian is more likely to use the specific names of NPS groups, such as Synthetic Cannabinoids, Synthetic Cathinones, Phenethylamines. Both newspapers mostly use generic terms.

FIG. 10. DISTRIBUTION OF KEYWORDS IN ARTICLES



One of the main characteristic of the NPS market is that producers keep on modifying molecules in order to avoid drug laws, therefore the media need generic terms to mention these substances due to the massive variety of specific names.

There are different possibilities with different semantic values:

- + the most used term “legal highs” underlines the legal status of the substances;
- + “Synthetic drugs” is the second generic term used to indicate not only NPS but also Amphetamine-Type Stimulants and other;

+ the expression “designer drugs” (recurring in only 5.5% of articles) is related to the similarity to the other substances;

+ “smart drugs”, (3.25 %) is used to define those substances used to enhance mental skills, almost all articles concerning “smart drugs” is about the use among students;

+ “novel psychoactive substance” and “new drugs” underline the novelty of the phenomenon, but these terms don’t seem to be used by press, respectively in 2.3% and 1.5% of articles.

Regarding specific names recurring in articles, the only specific substance frequently named is “Mephedrone” (19%), probably because Mephedrone was the first NPS widely used, therefore it received much more specific attention. The second name specified by the press is “Ketamine” (8,5%), a substance that is no longer considered an NPS in the UK.

135 articles (25,19%) are linked to two or more keywords, almost all are a generic terms (legal highs, designer drugs, novel psychoactive substances) associated to more specific terms such as Mephedrone, Synthetic Cannabinoids, Synthetic Cathinones, and Phenethylamines.

### Box 3. The use of TAGS in the Guardian

The Guardian has a user-friendly site that can shed light on some related topics.

The Guardian put noticeable emphasis on the NPS phenomenon: the main words linked to NPS (legal highs and Mephedrone) are used as tags. Tags are keywords associated to topics and recurring themes, for each tag it's possible to reach a tag page with all the articles concerning that subject. Therefore these articles have much more visibility: the reader can easily reach all the

articles connected to the topic word through the tag page where he has an overview of the story of the spread of NPS.

The editorial "The Guardian view on legal highs: the sleep of reason" , explains the Guardian's position about NPS, this underlines the high relevance of NPS as a topic for the newspaper.

The Times pays almost regular attention to the spread of NPS, nevertheless there's no attempt by them to highlight particular articles.

### Parts of the supply chain described in the articles

The articles from both newspapers mainly concern users: 50% are interested in this part of the supply chain, followed by articles describing the characteristics of substances (35%).

The other parts of the supply chain are given much less space in the UK press: 6% of articles describe distributors, 5% vendors and dealers and only 4% producers.

Articles describing users are mainly news articles reporting cases of death or intoxication mostly related to the use of Mephedrone, or showing data from academic research about the use of Synthetic drugs. Some articles report data on the use of Synthetic Cannabinoids in prison.

Most articles about substances are editorial or comment arguing mainly about the ban of Mephedrone, or the reclassification of Ketamine in order to treat mental illness.

When articles describe vendors or dealers they mostly concern facts related to police arrest or judicial processes. Other articles explain the consequences which would affect the dealing of the drugs if legal highs were banned.

Regarding distribution and production, articles often provide information about Chinese laboratories, and on-line supply and brick and mortar trading but, as already shown, only few articles are entirely about these subjects.

FIG. 11. DISTRIBUTION OF ARTICLES BY PART OF SUPPLY CHAIN DESCRIBED





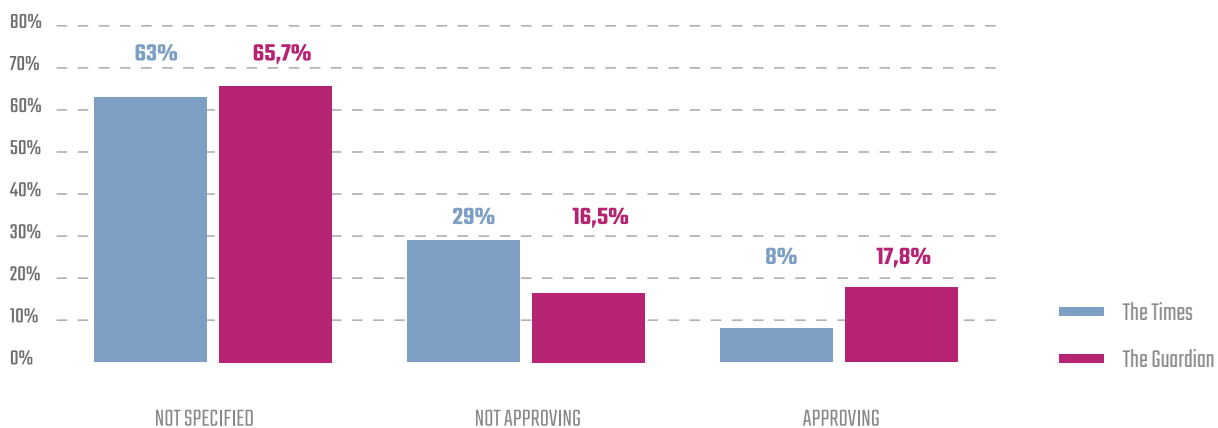
As shown in the fig. 11 The Guardian, compared with The Times, focused more on the higher part of the supply chain (producers and distributors) while The Times gives more attention to dealers.

Since producers and distributors are international subjects and dealers are national ones, this data agrees with the previous geographical analysis.

#### The viewpoint on NPS legal status emerging from the articles

The newspapers have two different attitudes towards NPS legalization: as shown in fig.12 most of the articles have no clear attitude, although a few still relevant items do present a clear ideological stance. Some articles that underline the extreme danger of NPS are collected under the “not approving” voice. These articles describe NPS in a such strong way that is impossible to consider legalizing it.

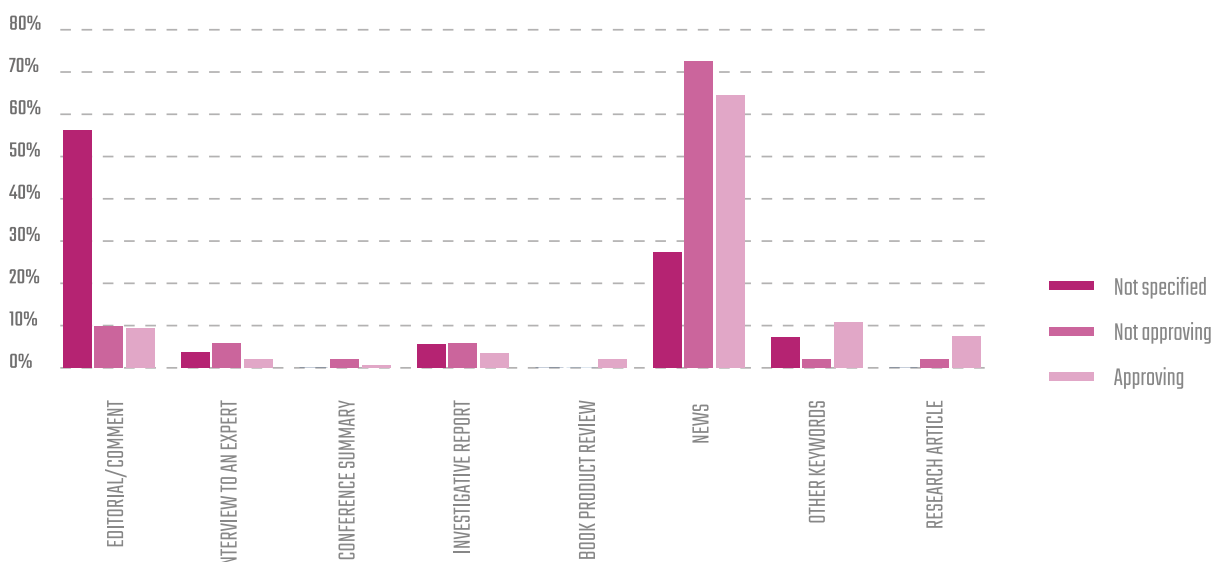
**FIG. 12. ARTICLES SORTED BY VIEW ON LEGALIZATION OF NPS**



As with regards to the ideological stance, The Guardian is against repressive and prohibitive policies and sustains an evidence-based drug policy to avoid the emotional response as stated in the 26/06/15 editorial “The Guardian’s view on legal highs: the sleep of reason”. This editorial explains the Guardian’s position about NPS, and underlines the great relevance of the NPS topic for the newspaper.

The Times pays almost regular attention to the spread of NPS, nevertheless there’s no attempt to highlight some articles as particularly special.

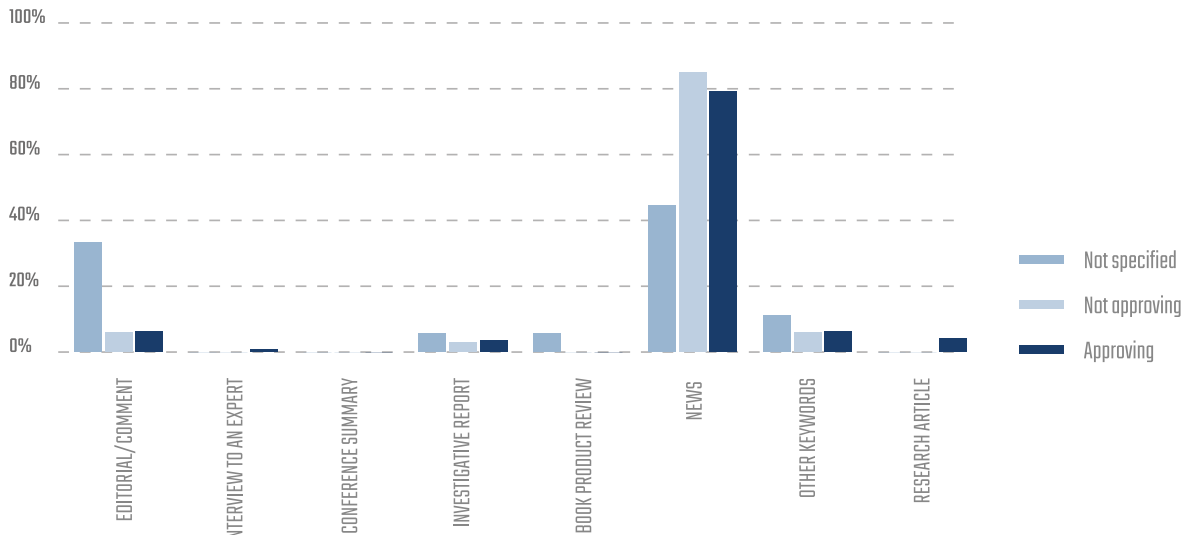
**FIG. 13. ARTICLES’ VIEW ON LEGALIZATION OF NPS SORTED BY TYPE – THE GUARDIAN**



The approving articles are mostly editorials and comments while the unapproving ones are among the news.

There's no explicit ideological stance in The Times but the amount of articles disapproving legalization or regulation of NPS trading is much greater than the amount of approving articles.

**FIG. 14. ARTICLES' VIEW ON LEGALIZATION OF NPS SORTED BY TYPE – THE TIMES**



The news contains the highest amount of “not approving” articles, while most of the “approving” articles are among the comment type.

The Times doesn't argue its stance through explicit arguments. Its ideological view however, emerges from the unfavourable depictions it gives in reports.

The Times has a more alarmist way of reporting the events: among the articles triggered by the word “death” the word “teenager” is much more common (18.7%) than in The Guardian (8.1%), as a result in articles in The Times NPS are more likely to be related to the description of young people.

Some articles present the consumption of NPS as linked to irrational, violent, evil crimes and madness; the most noticeable examples are of case study: 38 , 109 ,170 ,179 , 212 . None of those facts were linked to the keywords concerning NPS by The Guardian.

# REMARKS

The two studies focused on the Italian context provide some suggestions about phenomenon of NPS, both on the side on the actual use, and on the representation of the NPS phenomenon by Italian Media.

From the mass media analysis it emerges that the national media in recent years has increased their attention on the NPS market. This seems to be mostly due to the activities of the Law Enforcement Agencies operating at national and international level, but also to the data and information provided by the Early Warning Systems on Drugs by the UNODC and by the EMCDDA. It follows that information on NPS mostly concerns identification and brief descriptions of new substances, mainly of new types of Synthetic Cannabinoids, cases of intoxication of young people from Bath Salts and Synthetic Cannabinoids, but also some new investigations and studies on the online market for these substances.

The Italian mass media analysis also outlines that in recent years new surveys on the use of NPS have been carried out: however only partial information is provided by news articles; moreover, the data published suggests that there are still a lack of studies and of in depth analysis on the phenomenon. Results from the online survey confirms that the use of NPS in Italy seems to be low compared to other traditional drugs and those who use NPS try them once or twice in a lifetime and then stop using them. This data implies the need to implement qualitative studies in order to better understand the specific

characteristics of the phenomenon that, even if not so extended and statistically relevant as thought, can reveal important information about the overall drug market.

Regarding the countermeasures and preventive initiatives adopted to fight the phenomenon, the Italian press gives space mostly to the activities carried out by the National Health Service aimed at raising awareness of the harms and risks of NPS. Looking at the responses provided by users in the survey on the demand, they confirm what can be seen from the literature study: Information on NPS to people who use them is provided mainly from friends and by the Internet. Publicity campaigns don't seem to be effective on young people.

Moreover, the analysis of NPS features described in the press shows that these substances focus the attention of the media mostly because of the fact that they are being presented and sold as a great variety of products containing unknown compounds. It can be seen that the information on the harm and risks related to NPS provided by articles are mainly concerned with the unexpected effects they can have which are often described as more dangerous and powerful than traditional drugs.

These aspects suggest that correct information/ education on NPS as well as more mainstream drugs should be spread using new technologies but also by adopting and implementing peer education methods. In this sense more space should be given (also from

<sup>62</sup> Article available at: [www.thetimes.co.uk/tto/news/uk/scotland/article2590411.ece](http://www.thetimes.co.uk/tto/news/uk/scotland/article2590411.ece)

<sup>63</sup> Article available at: [www.thetimes.co.uk/tto/news/uk/article3809680.ece](http://www.thetimes.co.uk/tto/news/uk/article3809680.ece)

<sup>64</sup> Article available at: [www.thesundaytimes.co.uk/sto/news/uk\\_news/Crime/article1481404.ece](http://www.thesundaytimes.co.uk/sto/news/uk_news/Crime/article1481404.ece)

<sup>65</sup> Article available at: [www.thetimes.co.uk/tto/news/uk/crime/article4364615.ece](http://www.thetimes.co.uk/tto/news/uk/crime/article4364615.ece)

<sup>66</sup> Article available at: [www.thetimes.co.uk/tto/news/uk/scotland/article4506987.ece](http://www.thetimes.co.uk/tto/news/uk/scotland/article4506987.ece)

the media) to the expertise of operators working in the harm reduction services, i.e. people who are more easily able to understand and identify characteristics and patterns of consumer use.

The mass media analysis from UK shows that the phenomenon of NPS meaningfully catches the attention of the national press. This seems to take place mainly when cases of lethal intoxication by NPS have occurred, opening the political debate on the regulation of NPS. Differently from the Italian case, in fact, articles about NPS often are editorials or comments that try to explain the motivations of both points of view concerning the ban or the legalization of these substances. The importance of this debate is confirmed by the common use of the term “legal highs” used to describe the phenomenon.

A clear example of the relationship between the media representation, public opinion/perception and government policies is represented by the case of Mephedrone as described in box 1 of the study: in this circumstance, the media pressure around the death of two teenagers, seemingly caused by this particular NPS, influenced the government decision to ban Mephedrone.

More general information on NPS mainly focuses attention on the description of substances and NPS users, providing data from published research by national and international Institutes. At a national level, in 2010, much research focuses on Mephedrone, providing data about the prevalence of its use and its effects and characteristics.

As for Italy, the limited space given to the other parts of the supply chain, in particular the distribution and production, shows the broad lack of knowledge concerning these aspects of the NPS phenomenon.



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