

OBSERVATOIRE FRANÇAIS DES DROGUES ET DES TOXICOMANIES [French monitoring centre for drugs and drug addiction]

Recent information on the synthetic drugs circulating in France

The data from the SINTES [*Système d'identification national des toxiques et des substances* - National poison/substance identification system] socio-health system from July 2002 to September 2003

The initial results from the SINTES system for June 1999-June 2002 were presented in the 32nd issue of *Tendances*. This new issue offers, for the period July 2002 to the end of September 2003, an update on the observations made by the socio-health network. These concern the nature of the products collected (form, composition, dosage, comparison with the previous period, new substances) and the context data gathered: collection place, characteristics of the users and routes of administration.

The system

The SINTES information system on synthetic drugs coordinated by the OFDT has been in operation since 1999. Its objective is to observe the synthetic drugs circulating in France by providing information on their composition and dosage and to identify the new substances. Therefore, this system allows firstly to issue rapid information on identification of molecules not previously observed in France, or on potentially dangerous combinations and/or dosages, and secondly to monitor over time the trends of numerous indicators. The collection system is based on a double network, law enforcement on the one hand and socio-health on the other. The law enforcement network (customs, police, gendarmerie) periodically provides the results of the toxicological analyses of seized samples. The socio-health network collects samples from users: the substances most frequently sold as ecstasy, those considered as new and those which are associated with health problems. A form concerning the collection place, the substance and its effects is also filled in with the user.

At the end of the third quarter of 2003, the SINTES database contained more than 8,300 samples. More than half (58%) came from the law enforcement services whereas 42% were collected by the socio-health network. The results presented in this article relate to the 1,609 samples collected by the socio-health network between July 2002 and September 2003, whose toxicological analysis results were available at the end of December 2003.

Results July 2002 – September 2003 from the socio-health system

Geography and structure of the collections

During the period studied, nearly half of the products (46%) were collected at “techno” music events (raves, tecknivals, free parties, private techno parties). The collections also took place in night clubs (16%), at private parties (10%), in apartments (10%), on the street (9%), in cafés and bars (4%), in rock music venues (2%), and at summer music events (1%), reflecting the diversity of places in which synthetic substances were available during the period studied. Other types of collections are more marginal: during treatment (MdM

[*Médecins du Monde*] missions, SEPs¹, methadone bus, care centre, hospital) for 2% of the products collected; in squats (1%), event car parks and commercial music venues (1%).

The largest consolidated collection volumes for the period in question are observed in Ile-de-France region (a fifth of the total number collected), followed by Aquitaine, Burgundy and Franche-Comté. These are the regions in which the system has been in place the longest, dating back to when it was established in 1999. The current geographic distribution of the SINTES collections across 13 regions in metropolitan France is linked to the history of the system (in particular to the involvement of the initial collection structures) and to their gradual integration with the TREND [*Tendances récentes et nouvelles drogues* - Recent trends and new drugs] sites.

Tablets remain by far the most frequent form of product collected by the SINTES socio-health partners (71%). Then come powders (15%), capsules (7%), **blotters** (4%) and liquids (2%). Other forms are observed but remain rare, representing less than 2% of samples: these involve pebbles, pastes (amphetamines or “speed”) and microdots². Some products collected are not synthetic drugs but substances of vegetable origin (pellets, resin, seeds, mushrooms). The proportions of powders (15% as opposed to 11%) and of capsules (7% as opposed to 5%) seem to be on the increase compared with the previous period (June 1999-June 2002).

What do the tablets contain?

Nearly 9 out of 10 tablets collected (85%) contain MDMA³, the ecstasy molecule, or an amphetamine molecule (92%) (Table 1). These proportions appear to be increasing slightly compared with those for the period June 1999-June 2002 (82% and 88% respectively). Caffeine is also more evident among the tablets collected (12% as opposed to 5% during the previous period).

Table 1: Frequency of certain molecules in the tablets and powders collected from June 2002 to September 2003 within the context of SINTES.

	Tablets		Powders	
	n=1145	%	n=234	%
MDMA	978	85	58	25
Amphetamine	119	10	105	45
MDA	29	2	0	0
MDEA	61	5	2	<1
Metamphetamine	17	1	3	1
Ephedrine, pseudoephedrine	3	<1	2	<1
Intermediary components	54	5	2	<1
At least one amphetamine substance*	1,053	92	163	70

¹ SEP: syringe exchange programme

² A microdot contains LSD and looks like a dot from a black graphite pencil lead.

³ MDMA: 3,4-methylenedioxymethamphetamine. MDMA is “the ecstasy molecule”.

Caffeine	136	12	92	39
Cocaine	0	0	30	13
Ketamine	0	0	11	4
Heroin	0	0	10	4
Including chloroquine (Chloroquine®)	8	<1	4	2
Including paracetamol	3	<1	25	11
Including bethamethasone (Celestamine®)	18	2	0	0
Including venlafaxine (Effexor®)	8	<1	0	0
At least one medicinal substance	77	7	54	23

*: At least one amphetamine substance: products containing at least one of the following substances: MDMA, MDEA (3,4-methylene ethyl dioxy amphetamine), MDA (3,4-methylenedioxyamphetamine), amphetamine, methamphetamine.

Reading: of the 1,145 tablets collected from July 2002 to September 2003 and analysed, 978, namely 85%, contain MDMA. Since one tablet may contain several active products (MDMA and caffeine, for example), the sum of the percentages in the columns is greater than 100.

Source: ODFT SINTES 2004

The inert substances identified in the tablets are primarily sugars (lactose, starch, sorbitol, saccharose), fatty acids, cellulose, and talc (less than 4% of the tablets).

The dosages of MDMA in the ecstasy tablets.

Since the beginning of the system, the average dosage of MDMA in the tablets collected has gradually fallen. The average, which was above 75 mg in 2000, fell below the 60 mg mark in 2001, then continued to drop, and appears to have reached a plateau around 55 mg of MDMA per tablet in 2003 (Figure 1).

Figure 1: Trend in the dosage of MDMA (average, 1st and 3rd quartile) per quarter for the tablets collected by the SINTES socio-health network from June 1999 to September 2003

[graph]

[key to graph]

<i>Dosage de MDMA en mg</i>	MDMA dosage in mg
<i>Trimestre</i>	Quarter
<i>1^{er} quartile</i>	1 st quartile
<i>Moyenne</i>	Average
<i>3^e quartile</i>	3 rd quartile

Source: OFDT SINTES 2004

Even though, on average, the dosages are lower, the high MDMA dosages (>100 mg per tablet) have, since 2001, continued to represent more than 3% of the tablets collected⁴ (as opposed to 14% of those collected in 2000). The logos on these high-dose tablets (“XL”, “Sky”, “Underground”, “Clog”, “Butterfly”, “Armani”, for those notified most recently) cannot be differentiated from those on the other tablets. They correspond to the logos collected most frequently.

Of the 180 different logos listed from July 2002 to September 2003, the most frequent are “Mitsubishi” (7% of those collected), “Whale/Dolphin” (6%), “Smiley”, “@”, “Motorola” and “Heart” (4% each), “Butterflies” (3%), “Targets”, “Crowns/Rolex”, “Batman/Baccardi”, “Clog”, “Superman” (2% each), and “Star”, “Sky” and “Nike” (1% each). The tablets with no logo (5% of those collected) are usually referred to as “homemade” or according to their colour: “little blue tablets”, “little pink tablets”, “yellow XTCs”, etc.

For a single logo, the ratio between the smallest dose and the highest dose of MDMA can range from 1 to 30. Thus, of the tablets with a “Whale/Dolphin” logo, the one containing the lowest dose had 4 mg of MDMA and the one containing the highest dose 124 mg, a dosage more than 30 times as high. Even if two-thirds of the “Whale/Dolphin” tablets collected (35/55) contain a dose which is within a relatively narrow range (between 40 and 80 mg), it is still misleading for a user to regard this logo as a means of estimating the MDMA dosage of an ecstasy tablet.

The frequency of the **other amphetamine substances** (excluding MDMA and amphetamine) has stayed at lower levels and remains stable: 5% of the tablets contain MDEA, 2% MDA, and 5% synthetic intermediary products. The frequency of methamphetamine (1%) has not increased. Finally, some rarer amphetamine substances were identified: this involved 2 tablets containing 1-PEA and one tablet containing 2-CT-2. These tablets were sold as ecstasy.

Medicines sold as ecstasy. Medicines represent 7% of the tablets collected. There is practically no “mixed ecstasy”, composed of MDMA and a medicinal substance (only 1 tablet contains MDMA and paracetamol out of all the ecstasy tablets collected). By contrast, many pharmaceutical specialities sold as ecstasy have been collected. The molecules found most frequently are betamethasone (sold under the commercial name of Celestene® and Celestamine®) (n=18) and chloroquine (Nivaquine®) (n=8), whose logos and bitterness may give the impression of ecstasy tablets. Various psychoactive medicinal specialities are also found. In 2003, an antidepressant, venlafaxine (Effexor®), was collected on 8 occasions, in different regions, where it was presented as ecstasy. This is a pink-coloured tablet, in an original pentagonal shape which can make it attractive. Other medicines are also found: anxiolytics such as benzodiazepines (2 tetrazepam, 1 oxazepam, 1 bromazepam, 1 diazepam), neuroleptics (2 Nozinan®), an antiparkinson drug (1 Artane®), a substitution treatment (1 Subutex®), and a hypnotic drug (1 Zopiclone®).

Non-psychoactive medicines were also collected: 1 proguanil tablet (Paludrine®), a preventive and curative treatment for malaria, whose logo is a “PP”; 2 bumetanide tablets (Burinex®), a diuretic medicine whose “lion” logo can easily give the impression of an ecstasy tablet. Of the other molecules identified, there are antihistamines (4 chlorpheniramine), antibiotics (3 doxycycline), one beta-blocker (celiprolol), and one spasmolytic substance (thiocolchicoside). These medicines are, according to the users, supposed to contain MDMA or amphetamine.

⁴ See the information notes on tablets with high dosages of MDMA: <http://www.ofdt.fr/BDD/sintes/notes.htm>.

The samples in powder form: particularly “speed”

Powders represent 15% of the products collected from July 2002 to September 2003, namely 234 samples. Seven out of ten contain an amphetamine molecule (see Table 1), which is an increase compared with the previous period (56% of powders between June 1999 and June 2002). These involve in particular amphetamine or “speed in powder form”, whose frequency seems to be increasing (45% as opposed to 29% during the previous period). As for MDMA, this is found in only 25% of the powders (as opposed to 29% previously).

Figure 2 – Minimum, maximum and 1st and 3rd quartiles of the MDMA and amphetamine concentrations in the tablets and powders containing doses. SINTES socio-health collections from July 2002 to September 2003.

[graph]

[key to graph]

<i>Concentration de MDMA en %</i>	MDMA concentration as %
<i>Maximum</i>	Maximum
<i>3^e quartile</i>	3 rd quartile
<i>1^{er} quartile</i>	1 st quartile
<i>Minimum</i>	Minimum
<i>MDMA poudre</i>	MDMA powder
<i>MDMA cp</i>	MDMA tablet
<i>Amphétamine poudre</i>	Amphetamine powder
<i>Amphétamine cp</i>	Amphetamine tablet

Source: OFDT SINTES 2004

The variability of the MDMA concentrations in the powders is greater than in the tablets. Thus, the powders with the lowest concentration of MDMA contain only traces (less than 1%) and those with the highest concentration contain 89%, virtually corresponding to a pure MDMA powder (100% MDMA chlorhydrate). The concentration level in the powder samples covers a wider range than in the tablets (first quartile to third quartile: from 7 to 67% for the powders as opposed to 16 to 30% for the tablets) (Figure 2).

The situation is similar for the samples containing amphetamine, which can reach a concentration level of up to 84%. These very concentrated powders may correspond to significant and potentially dangerous quantities of amphetamine actually used. During the summer of 2003, 5 samples of powders collected at music events in the South-West contained more than 100 mg of amphetamine; these samples were sold as “Speed” or “Metha” and contained only amphetamine. The existence of high concentrations may expose the users to taking doses which are far higher than those to which they may be accustomed.

The powders supposed to contain only MDMA (n=43) are sold under the names “MDMA”, “MDMA powder”, “ecsta”, “MDMA crystals” and “MDMA in crystal form”. The powders supposed to contain amphetamine are collected under various names according to the colour (“pink, green, yellow, white, grey sky speed”), the texture (paste speed, pebble speed, crystal speed), the supposed production process (base speed, “yellow or meta speed”), or the provenance (Dutch speed, “Rotterdam speed”, “Danish metha”). Owing to the ease of

“cutting” the powders, substances other than amphetamines are frequent, added for their properties or as an adulterant. Thus, nearly 40% of the powders collected contain caffeine and one in ten paracetamol. Other medicinal substances are also found (aspirin, benzodiazepines, bupropion⁵, chloroquine⁶, ibuprofen, noscapine, etc.). Overall, nearly a quarter of the powders collected contain at least one medicine.

Powders are collected more often than previously. They are capable of reaching high levels of amphetamine concentration which may correspond to very significant and potentially dangerous quantities of active substance (or active principle). The presence of cutting products is frequent.

Capsules: particularly MDMA capsules

The capsules collected contain MDMA more often than the powders (74 capsules/116, namely 64% of those collected). Amphetamine, by contrast, is much rarer (7%), as is caffeine (8%) and ephedrine (4%). The medicines identified most often are paracetamol (24%) and propoxyphene⁷ (12%). The capsules containing paracetamol are sometimes commercial forms, but these may also involve mixtures of MDMA and paracetamol. They are sometimes supplemented with propoxyphene, bupropion or chloroquine. The capsules analysed usually contain 4 or 5 different molecules.

There are a variety of names: « gélule de MDMA pure » (“pure MDMA capsule”), « MDMA en g. » (“MDMA in capsule form”), « Mix de MDMA » (“MDMA mix”), « crystal de MDMA » (“MDMA crystal”), « gélule de MD » (“MD capsule”), « ecstasy naturel » (“natural ecstasy”), « gélule de speed » (“speed capsule”), “MTA”, “MDEA”, “methamphetamine”, « 2-CB gélule 175 (“2-CB capsule”), and even « la neigeuse » (“snowy”), « gélule forestière » (“forest capsule”), « molécule de la famille MDMA » (“molecule belonging to the MDMA family”), etc.

New or dangerous products. During the period July 2002 to September 2003, several information notes were distributed and put online on the OFDT (www.odft.fr) and MILDT [*Mission interministérielle de lutte contre la drogue et la toxicomanie* - Interministerial mission for the fight against drugs and drug addiction] (www.drogues.gouv.fr) websites, owing to the identification of tablets or capsules containing doses of more than 100 mg of MDMA or new substances. In 2003, this involved in particular several substances belonging to the tryptamine family (AMT, 5-MeO-DIPT, 5-MeO-DMT), collected in Midi-Pyrénées, Aquitaine and Burgundy. These products with primarily hallucinogenic properties appeared in powder, capsule and liquid form. 2CI, an amphetamine derivative, was identified for the first time in 2003 on the occasion of a police seizure carried out in the PACA [Provence-Alpes-Côte d'Azur] region.

The price of the products. The average price of the tablets sold as ecstasy remains around 10.40 € [2; 20]. It varies little according to the collection region: 11 € in Aquitaine, 11.40 in Burgundy, 10.40 in Brittany, and 10 in Ile-de-France and Midi-Pyrénées. The unit of sale of ecstasy in tablet form appears to be changing. During the period studied, several sites report sales in units of 10 or more tablets, with prices that can rise up to around 35 € per 10. The average price of an MDMA capsule is 12.40 €. MDMA in powder form is sold at an average of 45 € per gram [8; 90]. The powders sold as amphetamines (or speed in powder form) are

⁵ Bupropion is the active principal of Zyban®, a drug belonging to the amphetamine family, indicated in helping with tobacco detoxification.

⁶ Chloroquine is the active principal of Nivaquine®, indicated in the prevention and treatment of malaria.

⁷ Propoxyphene is an analgesic. It is one of the active principals, in combination, of Di-antalvic® capsules and Propofan® tablets.

cheaper (18 € per gram on average [8; 45]). Ketamine in powder form costs 28 € on average [5; 46]. The average price of an LSD blotter remains at 10.60 € [5; 20].

Who are the users encountered? Nearly half of the samples collected between July 2002 and September 2003 were handed over to the SINTES collectors by users aged between 21 and 25 (47%). A quarter of the users were aged between 25 and 30 (25%). The distribution by age bracket of the users encountered has remained virtually constant since 1999. Nearly 8 out of 10 users (78%) are boys. The girls are a little younger than the boys: a quarter of the girls (29%) are aged under 20, as opposed to 12% of the boys (Figure 3). The type of product collected does not vary according to the gender of the users encountered except for LSD blotters, which were collected from boys in particular (52/57, namely 91%).

The route of administration chosen by the users encountered for the product collected is, for tablets (1005/1008) and capsules (84/87), almost exclusively oral. By contrast, for powders, the users say that they sniff (125/180, i.e. 68% of the powders collected), swallow (19%), smoke (7%) and inject (3%, i.e. 5 users). A growth in the practice of sniffing can be seen (68% as opposed to 59% during the previous period) for the powders collected and a clear decline in the use of the oral method (19% as opposed to 31%).

Figure 3: Pyramid of the ages of the users who handed over a sample. SINTES socio-health collections from July 2002 to September 2003 (n=1556 samples).

[chart]

[key to chart]

<i>Tranches d'âge</i>	Age brackets
<i>Ans</i>	Years
<i>Femme</i>	Woman
<i>Homme</i>	Man
<i>Effectif</i>	Total

Source: OFDT SINTES 2004

Conclusion

Even if the biases created by the collection method require a degree of caution to be exercised in the analysis of the data, the quantity of samples gathered over more than four years makes it possible to highlight certain elements which are confirmed by the latest results presented here: a relative stabilisation in the average doses of MDMA observed most frequently in ecstasy tablets; the continued existence of a variety of medicines sold as ecstasy, which may lead to unexpected effects; the rarity with which methamphetamine samples are observed in France, despite the frequency of this in other countries such as the United States of America; the continued increase in the proportion of powders collected, a form whose content appears to be much more random than that of tablets and which may sometimes correspond to potentially dangerous quantities of amphetamine or MDMA.

The information on the new and potentially dangerous products is available online. Readers should refer, concerning the previous period, to *Tendances* no. 32, and for more detailed information, to the SINTES report published in 2003.

Isabelle Giraudon, Pierre-Yves Bello, SINTES network⁸

⁸ The network is composed of fifty collectors and the regional coordinators on the socio-health side (*Association Liberté*, the *Cèdre Bleu* of Lille, the Bordeaux CEID, the Rennes AIRDDS, the Lyon CNDT, the Metz CMSEA, the *Association GRAPHITI* of Toulouse, the “rave” missions of *Médecins du Monde* [MdM], the Dijon SEDAP; the toxicology laboratories of the Caen CHU, of the Salvator hospital in Marseilles and Fernand-Widal hospital in Paris, and the networks of customs and police forensic science laboratories (coordinated, respectively, by the Paris interregional customs laboratory and the Lyon LPS [*Laboratoire de police scientifique* – forensic science laboratory]).

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SINTES information notes

www.ofdt.fr/BDD/sintes/notes.htm

<http://www.drogues.gouv.fr/fr/index.html>