ISSN 1977-009X

European Monitoring Centre
for Drugs and Drug Addiction

ANNUAL REPORT 2006

SELECTED ISSUES

EN

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Cataloguing data can be found at the end of this publication.

Luxembourg: Office for Official Publications of the European Communities, 2006

ISBN 92-9168-250-0

Printed in Belgium

PRINTED ON WHITE CHLORINE-FREE PAPER

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Selected issue 3

Developments in drug use within recreational settings

Introduction

Background

Drug use and the recreational activities of young people have been linked ever since the concept of youth culture emerged in the 1960s. Research over the past two decades has shown that the prevalence of drug use in dance music settings is significantly greater than in the general population. It is such dance music settings that are the main focus of this selected issue.

The emergence of the electronic ([1]) dance music scene in parts of Europe during the late 1980s and 1990s brought with it an increase in the availability and consumption of 'dance drugs' such as ecstasy (MDMA) and amphetamines. Initially this development was at the expense of alcohol sales as early electronic dance music events were characterised as alternatives to the mainstream licensed pubs and clubs of the time. However, the drinks manufacturing and marketing industries have tapped into the lucrative dance music market and contributed to its expansion, opening it up to different social groups, especially young women. New alcoholic drinks with distinctive designs are targeted at the youth market, leading to concerns about excessive alcohol consumption in these settings, particularly when taken in combination with illegal drugs.

In the European Union, high densities of dance music venues are found in cities where there are many young people with disposable income. Furthermore, the Schengen Agreement ([2]) has opened internal borders within the EU; this, together with cheap travel options both between and within EU countries, appears to have stimulated developments in the dance music industry (Tossman et al., 2001; Bellis et al., 2003; Hollands and Chatterton, 2003; Measham, 2004; Sumnall et al., 2004; Dutch national report, 2005; Salasuo, 2005; Nutt, 2006).

Scope

The range of potential targets for discussion on drug use in recreational settings is almost inexhaustible. To narrow the scope of the selected issue and provide a practical focus, selection criteria were adopted for the settings and the drugs to be included.

Recreational settings

Research studies targeted at young people in the EU who attend dance music events consistently report much higher prevalence of drug use than are found in surveys of the general population. Drug prevalence levels reported from surveys conducted in a dance music setting inevitably vary according to the type of setting, the type of music played, the target group and also the year in which the survey was conducted. Dance music settings across the EU are increasingly heterogeneous, especially since the enlargement of 2004. A setting that may be characterised by a specific music style or client group at one point in time may change or cease to exist. For example, many of the very large dance venues popular in the 1990s and early 2000s have now closed down, while, during the same period, many new, smaller, clubs have opened and a wide range of small esoteric festivals has developed. In general, dance music culture is even more fragmented now than in the past.

The changes taking place in target settings, combined with the heterogeneity of the settings, presents difficulties for monitoring the situation and developing comparable drug surveys. Changes in music styles and clientele quickly render methods for comparing drug use in such settings obsolete. Because of this, drug surveys conducted in targeted recreational settings cannot form a representative sample of those who spend time in such varied settings. Moreover, comparisons between surveys can be made only with the utmost caution as the age and gender distribution of survey respondents as well as variations in the setting may partly explain observed differences.

Most of the drugs research conducted in this field has targeted two broad categories of recreational setting. One comprises large music festivals attracting thousands of visitors. The other comprises raves and dance parties as well

([1]) Electronic music is a term for music created using computer systems and other electronic devices.

([2]) The Schengen Agreement is named after the town in Luxembourg where the agreement was signed in 1985, and is aimed at creating a European 'territory without internal borders'.

as smaller clubs, discotheques, lounges, dance bars and nightlife areas.

Several research studies have categorised drug prevalence in terms of association with specific genres of electronic music. Ecstasy is the substance most widely and generally associated with techno music. However, in Greece, it is also associated with trance music and in Hungary and Slovakia, techno music is also associated with amphetamines. Research in Germany and the Netherlands has identified cannabis as the predominant substance found in the reggae/hip-hop scene. However, cultural differences in music genres and their definitions limit the possibility for robust between-country comparisons.

In-depth qualitative research with drug users who spend time in dance music settings has identified and described drug taking in illegal, 'underground' or 'free party' settings and in private pre- and post-club settings (Polish and French national reports). However, research on drugs use in private and illegal settings is so limited that it must remain outside the scope of this selected issue.

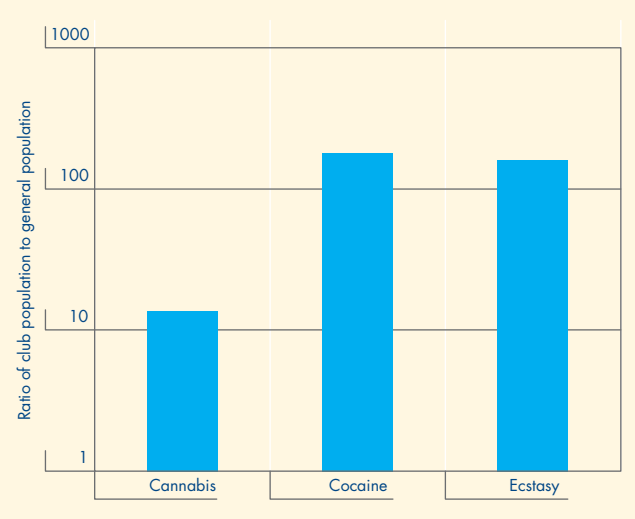
Internet

Another area for research related to settings for recreational drug use is the numerous Internet websites, forums and chat rooms that play an increasingly large part in the exchange of information about recreational drugs. Current estimates of Internet use hover around 650 million users ([3]) and about 3.9 million hosts worldwide. Along with the rapid growth of the Internet, the opportunity for drug users and potential drug users across the EU to access the information needed to produce, cultivate, purchase or sell drug products or to exchange information on drug-using experiences has increased correspondingly.

Drugs

For the purpose of this selected issue, the prevalence and patterns of use of stimulant drugs — ecstasy, amphetamine and cocaine — will be explored. It is in dance music settings that most research on recreational drug use has been conducted and, according to the research literature, it is these drugs that are most associated with these settings. An example from France shows that cannabis users are over 10 times more likely to be found in dance music settings than in the general population, and ecstasy and cocaine users are over 100 times more likely to be found in such settings (Figure 1). For similar reasons, prevalence estimates for the use of hallucinogenic drugs (LSD and hallucinogenic, psilocybin-containing mushrooms), ketamine and GHB are also included in this selected issue.

Figure 1: Comparison of last month use of cannabis, cocaine and ecstasy among the electronic music club population in France and general population of young adults (15–24 years) (odds ratio)



NB: A ratio of 1 signifies equality.
The odds ratio indicates the increased likelihood of finding drug users in the club population compared with the general population.
Caution advised as the club surveys were conducted in 2004 and the general population surveys were conducted in 2000. Odds ratios may have been less if both types of survey were conducted during the same year.
Source: Reitox national reports.

Prevalence and patterns of drug use

Since 1998, 18 Member States have reported the results of research studies conducted in or associated with dance music settings. The methods used for conducting these surveys vary in a number of respects that should be kept in mind when making comparisons between countries and surveys. Sample sizes range from seven in-depth interviews with ecstasy users in Malta to 2 800 respondents in 43 different settings in France (Table 1). Types of setting also vary. Studies conducted to date have included large music festivals that attract up to 200 000 people as well as relatively small mainstream dance clubs. Geographical locations vary: some studies are city based (e.g. Amsterdam, Athens, Berlin, Bologna, Budapest, Madrid, Paris, Prague, Riga, Rome, Vienna, Vilnius, Vicenza) and some are regional (e.g. the French- and Flemish-speaking communities in Belgium, south-east England). Some EU Member States have attempted a form of national coverage of dance music settings (the Czech Republic, France, Hungary, the Netherlands, Austria and Sweden). In addition, a dance music magazine in the United Kingdom provides trend data based on a readership survey conducted annually since 2000 (*Mixmag* drugs survey).

([3]) http://www.internetworldstats.com/stats.htm

Table 1: Drug studies and surveys conducted in dance music settings in Europe that provide the data and information reported in this selected issue

Member State	Year survey conducted	Sample size	Brief description
Belgium	2000–04	1 000 per year (average)	38 rock festival events in French community in 2004
	2003	645	VAD trend study in party/club settings in Flemish community
	2001	n.a.	Two large events in Ghent
Czech Republic	1998	505	Techno party scene, Prague
	2003	1 652	Dance parties
Germany	1998	501	Techno party scene, Berlin
Greece	1998	305	Trance, house, rock and local music scenes in Athens
Spain	1998	500	Techno party scene, Madrid
France	2003	2 800	43 Parisian venues attended largely by homosexual men
	2004–05	1 496	GRVS/OFDT electronic music survey
Ireland	1990s	20	In-depth interviews with ecstasy users
	1990s	10	In-depth interviews with recreational cocaine users in private settings
Italy	2003	300	People in recreational settings in Rome and Vicenza
	2004	2 015	Very large festivals in Bologna, Imola and Arezzo
	2004	590	Street rave parade, average age 24
Latvia	2000	400	Riga
Lithuania	2000	290	Vilnius and Kaunas
Hungary	2003	1 059	Party scenes
	1999	1 507	Clubbers in Budapest and four other big cities
	1997	373	Discos, parties and club settings
Malta	2001	7	In-depth study of ecstasy users in Malta
	2002	16	Study of ecstasy users in Malta
Netherlands	1998–2005	Approx. 400	Amsterdam nightlife surveys
	2001–02	490	Rave parties in the Netherlands
	2003	431	Party scene in the Hague
	2003–05	n.a.	Expert 'grass root' panel
Austria	1998	505	Techno party scene, Vienna
	2001, 2003	838	ChEckiT
		110	Three dance music scenes (Drum'n bass, Freetekno and Goa)
Slovakia	2005	227	Participants at three large music festival (Pohoda, Hodokvas and Be Free)
Sweden	2004	n.a.	Interviews and observation at two major music festivals
	2004	129	Four comparable projects in club scene in large cities
United Kingdom	2000–05	834 (average)	Annual *Mixmag* surveys
	2000	760	Clubbers attending six mainstream clubs in south-east England, including one gay one
Norway	2004	n.a.	Research in Oslo

NB: n.a., data not available.
Methodology: Comparisons between surveys conducted in dance music settings should be made with the utmost caution as variations in the age and gender distribution of survey respondents and in survey methods, settings and countries may partly explain observed differences. The main purpose of presenting data from such surveys is to illustrate that, without exception, they all render higher prevalence estimates for drug use than those obtained from general population surveys among young adults (aged 15–34 years).
Sources: Reitox national reports.

Methodology

Site sampling, in which samples are taken from a location that is commonly visited by individuals displaying a target behaviour, is a technique used in the social sciences to generate samples that would be more costly or difficult to generate by other means. However, it should be noted that these samples cannot be regarded as representative in any statistical sense. Respondents are often self-nominated, and the representativeness of the individuals attending the event selected for study cannot be assumed. Comparability between samples from different sites is usually poor, and drawing comparisons between different site surveys must be done with caution. Factors to be borne in mind include the fact that the settings that are targeted by drug studies are those in which drug use is perceived to be high. In addition, different studies may employ different instruments and methods. Differences in age, gender, income and other lifestyle-related variables complicate comparisons, as do social, cultural and geographical differences both between and within countries. Nonetheless, surveys conducted in dance music settings provide a useful window on a group that is often poorly visible in other data sources and confirm that levels of some types of drug use are high in these settings. Thus, they provide valuable information on a group that is clearly appropriate for informing the targeting and development of prevention and risk reduction initiatives. Furthermore, looking at behaviour over time in these sorts of targeted samples can provide important clues on general trends and new developments in drug use in recreational setting, even if conclusions need to drawn with caution and verified against other data sources. Magazine and Internet surveys are also used to understand a target behaviour. These surveys require similar cautions.

Despite the described variability in drugs research conducted in dance music settings in the EU, a common feature of all of the studies is that the reported prevalence levels for most forms of drug use are considerably higher than those reported in general population surveys.

Lifetime prevalence estimates of 'club drugs'

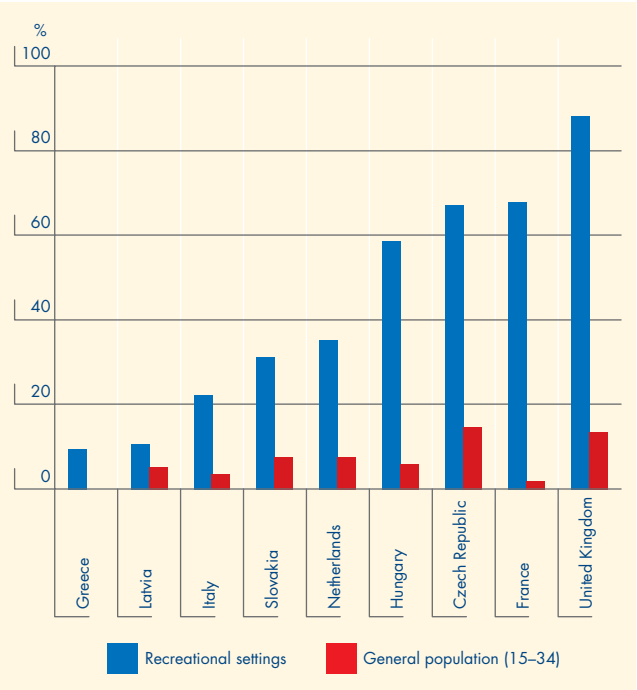
Stimulant drugs

Figure 2 shows that ever in lifetime prevalence of ecstasy use among people surveyed in dance music settings in nine different countries ranged from 9 % in Athens in 1998 to 88 % of respondents of a dance music magazine survey conducted in the United Kingdom in 2003. Lifetime prevalence levels of ecstasy use of over 50 % have been reported in targeted surveys from the Czech Republic, France, Hungary, the Netherlands and the United Kingdom, compared with prevalence levels of 11 % or below reported in Greece and Latvia.

Lifetime prevalence of amphetamine use, surveyed in eight countries, ranged from 6 % in Athens to 74 % in the United Kingdom magazine survey. Figure 3 shows that the countries with the highest prevalence of amphetamine use are broadly the same as those with the highest prevalence rates for ecstasy. Chapter 4 of the EMCDDA 2006 annual report describes the general population trends for these two drugs, suggesting that ecstasy has gradually replaced amphetamine use in a number of EU Member States. Research in targeted settings indicates increases in the use of cocaine, and it has been suggested that, in the Netherlands, cocaine may be becoming a favoured drug for use in dance music settings. Among seven countries reporting the results of surveys targeted at dance music settings, lifetime prevalence of cocaine use ranged from 10 % in Athens to 75 % in the United Kingdom magazine survey (Figure 4). France, Italy and the United Kingdom reported rates of lifetime prevalence of cocaine use of over 60 %.

With regard to gender differences there is a progressive increase in male to female ratios for lifetime experience of drug use with increasing age. Gender ratios for lifetime

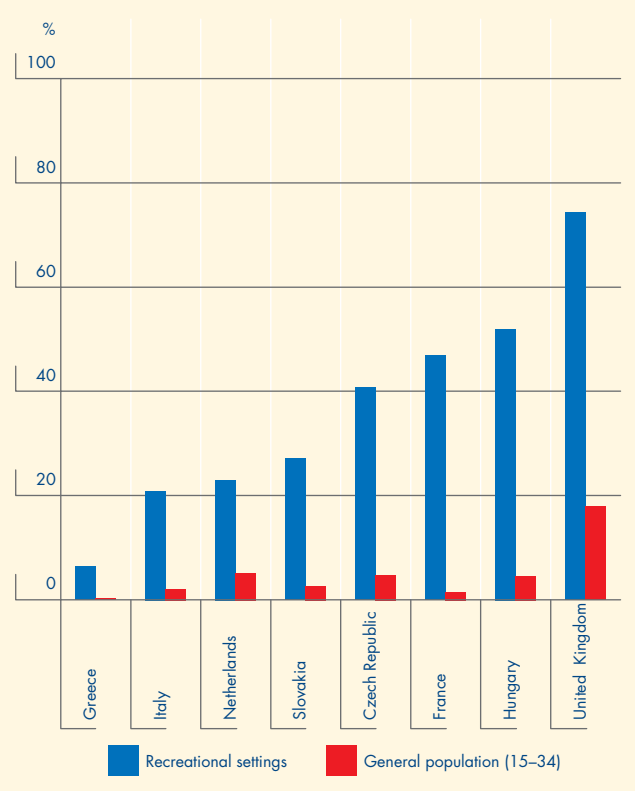
Figure 2: Prevalence of ever in lifetime use of ecstasy in surveys carried out in club settings and among the general population



NB: Estimates for recreational settings are based on non-probability samples using a variety of methods and sampling frames. Prevalence of drug use among the broader population of clubbers cannot be inferred from these samples. General population survey estimates based on young adults (15–34 years). Most surveys were conducted in 2003–04 except: Greek club survey in 1998, French general population survey in 2000 and Netherlands general population survey in 2001. See Table GPS-9 in the 2006 statistical bulletin for further information about the general population surveys.

Sources: Reitox national reports; Korf et al. (2004); McCambridge et al. (2003).

Figure 3: Prevalence of ever in lifetime use of amphetamines in surveys carried out in club settings and among the general population



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Sources: Reitox national reports; Korf et al. (2004); McCambridge et al. (2003).

prevalence of ecstasy use increase from a range of 0.5–2.0 among 15- to 16-year-old school students to a range of 1.0–6.0 among all adults (see the selected issue on gender for further details). It has been suggested that the higher prevalence among female than among male school students found in some countries is the result of 15- to 16-year-old female school students socialising in dance music and other recreational settings with older males.

Hallucinogenic drugs

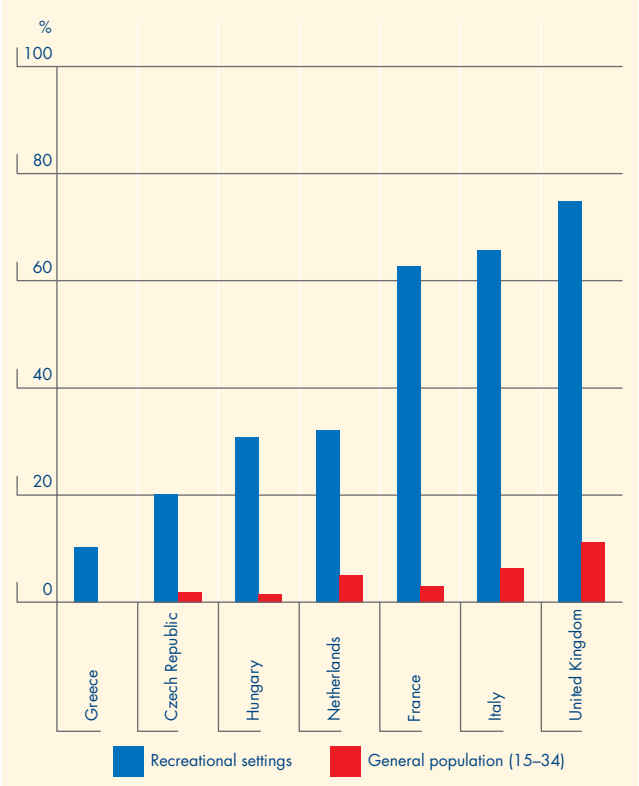
Prevalence estimates for ever in lifetime use of LSD of 45 % in the Czech Republic (Figure 5) and of lifetime use of magic mushrooms of 55 % in France (Figure 6) are the highest reported rates of use of hallucinogenic substances. In-depth studies with users show that regular use of hallucinogenic substances is relatively uncommon and significantly less prevalent than regular use of stimulant drugs.

GHB and ketamine

Less widely used than ecstasy, GHB and ketamine are nevertheless substances whose use has increased during the past five years, to the extent that estimates of their prevalence levels are significant in the dance music scene in some Member States. Dance music surveys in five countries have reported prevalence estimates for ever in lifetime use of GHB, ranging from 5.6 % in the United Kingdom to 17.4 % in the Netherlands. Seven countries provided data for lifetime ketamine use, ranging from 6.7 % in the Czech Republic to 20.9 % in Hungary (Table 2).

Differences between countries for lifetime prevalence of the use of ecstasy, amphetamines and LSD in recreational settings generally reflect the differences in prevalence reported by general population surveys. However, it should be noted that surveys targeted at dance music settings are not based on representative samples, and reported estimates of prevalence often vary between different surveys within the same country. For example, a survey conducted among 760 'clubbers' in the south-east of England in six different nightclubs in 2000 reported 52 % lifetime prevalence for ecstasy use, whereas another survey conducted during the same year by a United Kingdom clubbers' magazine (*Mixmag*) reported a lifetime prevalence of 96 % for ecstasy

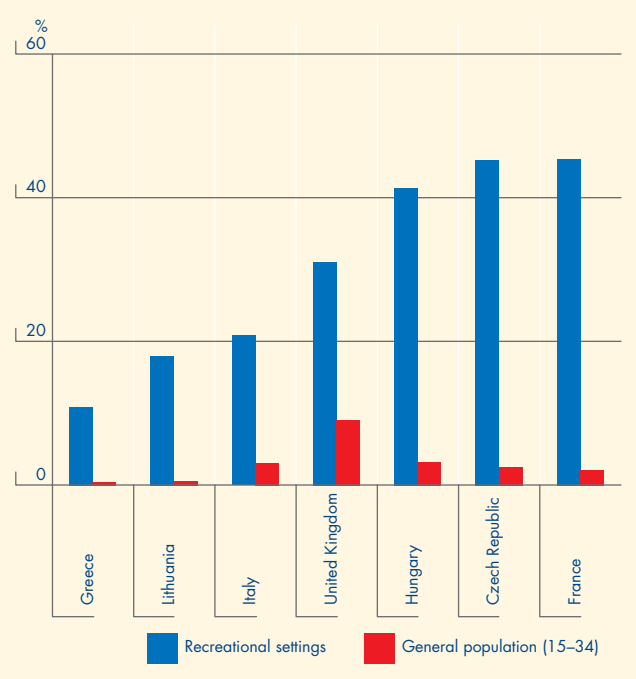
Figure 4: Prevalence of ever in lifetime use of cocaine in surveys carried out in club settings and among the general population



NB: Estimates for recreational settings are based on non-probability samples using a variety of methods and sampling frames. Prevalence of drug use among the broader population of clubbers cannot be inferred from these samples. General population survey estimates based on young adults (15–34 years). Most surveys were conducted in 2003–04, except: Greek club survey in 1998, French general population survey in 2000 and Netherlands general population survey in 2001. See Table GPS-9 in the 2006 statistical bulletin for further information about the general population surveys.

Sources: Reitox national reports; Korf et al. (2004); McCambridge et al. (2003).

Figure 5: Prevalence of ever in lifetime use of LSD in surveys carried out in club settings and among the general population



NB: Estimates for recreational settings are based on non-probability samples using a variety of methods and sampling frames. Prevalence of drug use among the broader population of clubbers cannot be inferred from these samples. General population survey estimates based on young adults (15–34 years). Most surveys were conducted in 2003–04 except: Greek club survey in 1998 and French general population survey in 2000. See Table GPS-9 in the 2006 statistical bulletin for further information about the general population surveys.
Sources: Reitox national reports; Korf et al. (2004); Deehan and Saville (2003).

use. Similarly, the south-east of England survey reported 46 % lifetime prevalence for cocaine use compared with 76 % in the *Mixmag* survey.

Last month prevalence of 'club drugs'

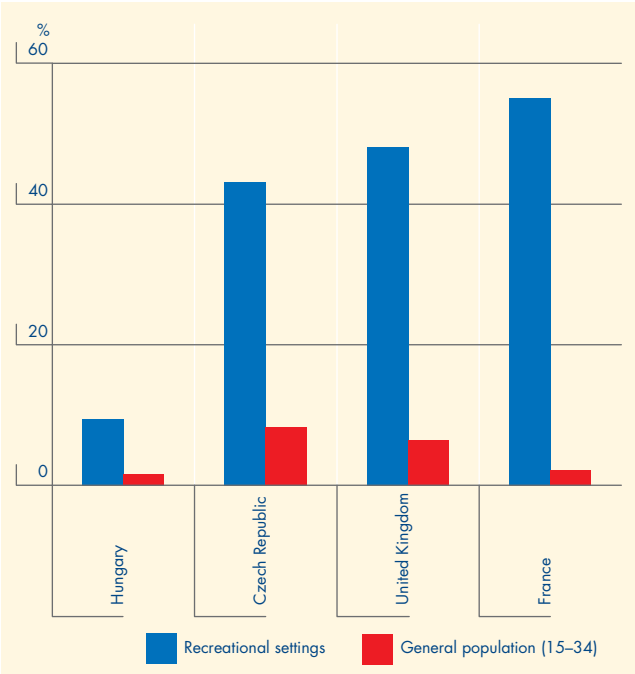
Last month prevalence is generally taken as a measure of current drug use and is considered a better indicator of potential problem drug use than lifetime prevalence, although between-country differences in both lifetime and last month prevalence generally follow similar patterns. Last month prevalence as a proportion of lifetime prevalence varies for different substances. For example, estimates of last month prevalence of ecstasy use reported in dance music surveys in five countries are close to half of those for lifetime prevalence, whereas last month prevalence of amphetamine use is considerably less than half of lifetime prevalence in most countries reporting dance music surveys (Figure 7). This appears to support suggestions that ecstasy is currently favoured over amphetamines in these types of settings. For more details about the use of these two substances, see Chapter 4 of the EMCDDA 2006 annual report. Data on last month prevalence of cocaine use, provided by six countries, reveal a more mixed picture (Figure 7).

Prevalence of crack cocaine use is, generally, very low in dance music settings, which tend to cater largely for socially integrated young people. The strong separation of the (mainstream) powder cocaine scene from the (marginalised and problem) crack cocaine scene is demonstrated in data from the recent United Kingdom *Mixmag* survey. According to the 2004 *Mixmag* survey, nearly half (47.5 %) of respondents had used powder cocaine during the month prior to the survey, compared with only 3.4 % who had used crack cocaine. Ireland reported that cocaine is more likely than ecstasy to be used in private.

Trends

Data on trends from research targeted at dance music club surveys are very limited and not as robust at those derived from general population surveys. However, these surveys serve to highlight and describe patterns and emerging trends in drug use that are needed for designing appropriate responses. Examples include the Austrian ChEckiT studies, which report a significant increase in the use of cannabis, ecstasy, cocaine, ketamine and magic mushrooms. Trend data in the French-speaking community in Belgium show no major changes except for a decrease in last month

Figure 6: Prevalence of ever in lifetime use of hallucinogenic mushrooms in surveys carried out in club settings and among the general population



NB: Estimates for recreational settings are based on non-probability samples using a variety of methods and sampling frames. Prevalence of drug use among the broader population of clubbers cannot be inferred from these samples. General population survey estimates based on young adults (15–34 years). Most surveys were conducted in 2003–04 except the French general population survey in 2000. See Table GPS-9 in the 2006 statistical bulletin for further information about the general population surveys.
Sources: Reitox national reports; EMCDDA (2006).

Table 2: Lifetime prevalence of use of GHB and ketamine in dance music surveys

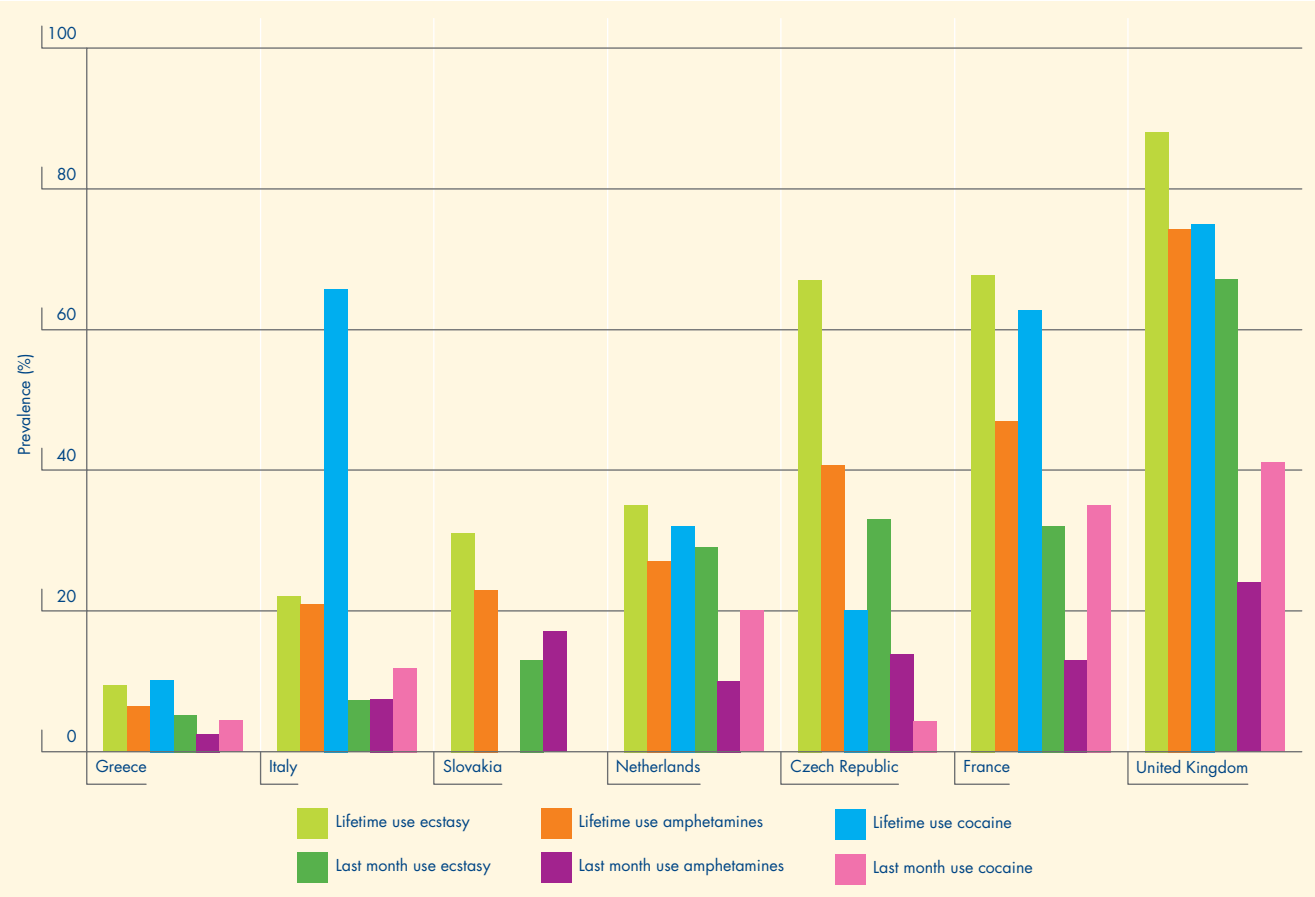
	GHB, lifetime prevalence of use (%)	Ketamine, lifetime prevalence of use (%)
Belgium	13	n.a.
Czech Republic	6.7	6.7
France	n.a.	16.4
Italy	n.a.	10.8
Hungary	5.9	20.9
Netherlands	17.4	n.a.
United Kingdom	5.6	17.0

NB: n.a., data not available.
Sources: Reitox national reports.

prevalence of LSD use. Reports from Amsterdam suggest that last year and last month use of ecstasy and cocaine decreased by 20 % and 10 % respectively between 1998 and 2003 (Dutch national report). It is of note that the average amount of ecstasy used on each occasion also declined in this period, whereas the average amount of cocaine used on each occasion increased. Furthermore, a qualitative trend watch study in the Netherlands suggests that the popularity of cocaine has increased and its use has become normalised among some sectors of young people. Five-year trends reported by the annual United Kingdom *Mixmag* music magazine readership survey show that, despite an apparent reduction in the prevalence of ecstasy use during the last month, the proportion of heavy users (defined as taking usually more than four pills per session) more than doubled between 1999 and 2003 (McCambrige et al., 2005). Increasingly intense use of ecstasy and polydrug use by experienced ecstasy users is also reported in a United Kingdom Internet study (Scholey et al., 2004). Increased consumption of tablets in one session may be related to a reduction in price (see also 'Drug availability, purity and prices', p. 46).

The average quantity of cocaine consumed in one session, according to surveys carried out, was nearly half a gram in

Figure 7: Prevalence of ever in lifetime use and last month use of ecstasy, amphetamines and cocaine in dance music populations



NB: Estimates for recreational settings are based on non-probability samples using a variety of methods and sampling frames. Prevalence of drug use among the broader population of clubbers cannot be inferred from these samples.
Sources: Reitox national reports; Korf et al. (2004); McCambridge et al. (2003).

the United Kingdom in 2004 and over one third of a gram in the Netherlands in 2003.

Because there is much concern about the use of illegal drugs among young people in dance music settings, less media attention has been paid to alcohol. However, the consumption of alcohol in such settings, often in quantities considered hazardous to health (Parker et al., 1998), and in combination with stimulant drugs, is a growing cause for concern. For example, a recent editorial in the *Journal of Psychopharmacology* highlights the fact that alcohol contributes to 22 000 premature deaths per annum in the United Kingdom at a cost to society of EUR 27 billion (Nutt, 2006).

Risk factors for drug use in recreational settings

There is a social process that young people who take drugs must go through. The process generally begins with hearing positive reports about a drug and being able to observe other young people using it. After this the person may try the drug. If the experience is positive, drug use may be repeated. Certain attributes of the drug itself play a significant part in the process whereby young people start to take it in recreational dance music settings. These include how easy it is to try, how easy it is to observe others using it, what the relative advantages and risks are and how compatible its use is with other valued aspects of social life (e.g. people who smoke cigarettes are more likely to smoke cannabis than those who do not smoke cigarettes) (Golub and Johnson, 1996; Ferrence, 2001).

The significantly higher prevalence of drug use reported in targeted dance music club surveys compared with the general population suggests that dance music settings may constitute a risk to young people who spend time in them by exposing them to drugs. However, the higher than average prevalence of drug use in these settings should be interpreted with caution as interrelated factors such as age, marital status and other individual factors strongly influence prevalence. Work conducted in the United Kingdom on general population data identified age and gender as the factors that are most significantly associated with class A drug use in the previous year. Visiting nightclubs was next in terms of its association with drug use. The high prevalence of drug use found in dance music settings may simply be because clubbers tend to be young and single. In the Netherlands, use of ecstasy has been most closely linked to dance parties attracting younger age groups whereas cocaine has been linked to clubs attracting older age groups.

It is important to note that, for the majority of young people across the EU, drug use is still not necessarily an integral element of dance music settings. For the majority it is the music, the social aspects and the use of alcohol that form the most integral experiences in these settings.

Another factor to consider in relation to the high prevalence estimates obtained from surveys in recreational music settings is that experimenting with drugs is often associated with brief periods in an individual's life. The findings of research conducted in Spain, Sweden and the United Kingdom suggest that young people holidaying abroad do not behave in the same way as they do at home. A United Kingdom survey conducted in Ibiza airport found that individuals who had never used illegal drugs at home started using them whilst on holiday in Ibiza (17.4 and 33.1 per 1 000 people were introduced to cocaine and ecstasy use, respectively, in Ibiza) (Bellis et al., 2003). Among those individuals who were already using drugs in the United Kingdom, frequency of use was significantly higher during the holiday period — 7 % reported using ecstasy on five or more nights per week while in the United Kingdom compared with 37 % while in Ibiza. Furthermore, Spain reported that recreational drug use was highest among the high concentrations of young people on the Mediterranean coast where there are many tourists. Swedish research found that, of the young people who had tried illegal drugs, 23 % did so for the first time while abroad. Sweden reports a shift in attitudes among young Swedish travellers towards a more permissive stance and a relaxing of restrictive values with travel. In addition, it is reported that party cruises, associated with high levels of drug use, have sprung up in Sweden.

A large body of research shows that drug use in general is linked to specific individual and social factors. In recreational settings, for example, a proportion of young people may be categorised as greater than average risk-takers, and it is those 'risk-takers' who are most likely to try different drugs (Austrian national report). Norway reported that homosexuals may be at greater risk than heterosexuals in regard to drug taking. A range of individual and social risks for developing problematic or intensive patterns of drug use have been identified (Bobes and Saiz, 2003), but these are outside the scope of this selected issue.

Drug availability, purity and prices

Drug use prevalence data from studies conducted in dance music settings are almost always based on self-reported use. However, young people in these settings often have no definitive way of knowing what the contents of tablets and powders are. A common concern about the use of drugs in dance music settings is the risk of a young person inadvertently purchasing and using a highly toxic substance which has been sold as ecstasy or cocaine, for example.

Chapters 4 and 5 of the EMCDDA annual report provide detailed EU information on the price and purity of ecstasy, amphetamines and cocaine. Generally, in Europe, most tablets sold as ecstasy contain MDMA or another ecstasy-like substance (MDEA, MDA), usually as the only psychoactive substance present. The MDMA content of ecstasy tablets varies greatly between batches. In 2004, the average content of active substance (MDMA) per ecstasy tablet was reported to range from 30 to 82 mg ([4]). In the United Kingdom, a system to address the purity of drugs used in dance music settings has been established. Substances that are discarded in 'amnesty bins' located at the entrances of clubs and music festivals have been analysed. Tablets containing only MDMA (ecstasy) were found to account for 94 % and 84 % of the total discarded tablets in London and Manchester respectively. The most common drugs found in powders in London and Manchester were cocaine (29 % and 40 % respectively), amphetamine (25 % and 26 %), ketamine (19 % and 20 %) and MDMA (19 % and 11 %) (Kenyon et al., 2005).

The Netherlands also has a system in place to monitor samples of drugs used in recreational settings (DIMS). Some alarming new ingredients have been reported as well as higher doses of psychoactive substances than in previous years. For example, atropine was found in several samples of cocaine; this discovery led to a large-scale warning.

A study conducted in dance music settings in Rome and Vicenza attempted to correlate self-reported drug consumption with that assessed by the analysis of hair samples. The results appeared to confirm the veracity of self-reported drug use.

The most recent available data on the price of drugs used in dance music settings indicate that, although prices for ecstasy (EUR 3 to EUR 25 per tablet), amphetamines (EUR 4 to EUR 64 per gram) and cocaine (EUR 41 to EUR 100 per gram) vary considerably across Europe, in each case the general trend in price is downward.

Role of the Internet

Increasing concern is being expressed about the role of the Internet in both the supply and promotion of drugs for use in dance music and other recreational settings (Maltese national report).

Up-to-date, systematic assessments of representative samples of drug-related websites are resource-intensive and scarce. An exception is the Psychonaut 2002 Project, involving nine EU Member States, which systematically searched the Internet for websites with contents related to different drugs of abuse, including recreational drugs. A total of 1 633 unique websites were identified, of which 41.4 % were identified as 'private interest' (commercial or personal) websites, and which typically reported either self or others' accounts of experiences taking drugs and/or offered different items for sale (Schifano and Deluca, 2005).

The Internet allows for fast global contact with growing numbers of individuals and groups and has become a virtual setting for information exchange for many individuals who are interested in psychoactive drugs. The number of such sites is unknown. However, a simple search via the search engine Google allows easy identification of sites that offer information about recreational drug use. The most common Internet-mediated communication technologies used for such exchange are discussion forums (or web forums, message boards) and chat rooms.

Internet forums, chat rooms and websites

The basic characteristic of a forum is that it enables people to start discussion threads and reply to other people's threads. Someone posts a message which is visible to everyone, other people can read it and then they have the option of posting a reply which will also be visible to everyone; in this way, a discussion can develop without all users having to be online at the same time. Intrinsic to Internet forums and chat rooms are problems of identity and motive. The real characteristics and origin of the authors are unknown, and the motivations for posting such messages cannot be ascertained. For example, messages may be posted by drug prevention workers seeking to engage with drug users or by individuals with commercial interests.

Chat rooms are usually real-time interactive, text-based discussion systems delivered via a networked computer chat server. Forums and chat rooms concerned with legal and/or illegal drugs can be classified as anti- or pro-drugs. Anti-drug sites are frequently added features of online drug prevention sites or treatment-related forums and clearly state their objectives. For example, anti-drug chat rooms and forums often set up rules for posting messages such that the exchange is not used for the promotion of drug use and/or sale of drugs (e.g. www.drugcom.de). These rules are often enforced by forum administrators, who have the ability to edit, delete, move or otherwise modify any thread on the forum.

Pro-drug sites or sites that are not explicitly drug prevention sites are often linked to online retailers selling legal alternatives or sites promoting the legalisation of specific drugs and/or simply document users' exchanges. They provide a wide range of drug-related information, such as consumption techniques, drug recipes, user reports, overviews on the legal situation, etc. Forums or chat rooms

([4]) This range is based on data from a few countries only, namely Denmark, Germany, France, Luxembourg and the Netherlands.

often focus on a single drug or group of specific drugs (e.g. http://boards.cannabis.com/, http://www.sjamaan.com/forum/default.asp), or are primarily targeted at clubbers, who also have the opportunity to exchange drug-related information (e.g. http://www.clubdogma.com).

Marijuana appears to be the most common drug promoted on websites offering drug-related information exchange. However, information about stimulants and other drugs used in dance music settings, such as ecstasy, LSD and magic mushrooms, is also commonly exchanged via the Internet (e.g. http://ecstasy.org). The use of ecstasy is promoted, and many Internet sites and bulletin boards allow users to discuss their experiences. Club or party sites often provide descriptions of side-effects and safe use recommendations (e.g. http://www.aromadome.com/d-drugs.html_UK, http://www.underave.net).

Internet sales

The emergence of the Internet not only as a source of information and information exchange, but also as a source of illegal drugs and/or their compounds (Schifano et al., 2003), has been increasingly the subject of concern and discussion. In 2005, the International Narcotics Control Board (INCB) warned in its annual report of a growing hard-to-control threat posed by Internet drug sales (INCB, 2005). This includes Internet pharmacies illicitly selling pharmaceuticals containing internationally controlled narcotic drugs and psychotropic substances or precursors to them. In 2004, Sweden and Romania reported that the Internet was used as a source of illegal drugs.

The online market for legal substances claiming to have psychoactive properties is also expanding. Legal alternatives are sold by Internet-based companies often referred to as online smart shops. It appears that the majority are based in the Netherlands and the United Kingdom (EMCDDA, 2006) but there are sites based in other EU Member States (e.g. Denmark, Germany, France and Austria). They sell legal products frequently labelled as 'herbal highs' or 'legal highs'. Among these products are drugs such as 'herbal xtc' ([5]) and *Salvia divinorum* ([6]), *Amanita muscaria* (fly agaric), purple ohms capsules ([7]) and pep pills ([8]). Many of these products may pose serious health risks when taken by people with mental health problems or when mixed with other drugs or taken in high dosages.

Consequences of drug use

The absence of accurate and comparable systems for recording deaths and non-fatal emergencies related to the use of ecstasy, amphetamine, cocaine and other substances in dance music settings limits the data available in this area. However, there have been reports that provide insights into the negative effects of drug use in recreational settings. It is worth noting that, in the context of recreational settings, drug users generally form part of the socially integrated youth culture. Typically they are students or in full-time employment and they tend to make decisions about their drug use based on assessments of the risks and benefits in the light of perceptions about the dangers of different substances.

Health problems and non-fatal emergencies

The records of the Municipal Health Service in Amsterdam show that the number of non-fatal drug emergencies attributed to ecstasy, amphetamines and hallucinogenic drugs use account for only a small proportion of the total 3 404 drug emergencies during the five-year period from 2000 to 2004 (Figure 8). Comparable data are not available from other countries. In the United Kingdom, a study of 777 'nightclub cases' attending an accident and emergency (A & E) department in 2001 found that most of those attending had lacerations (39 %) or soft-tissue injuries (26 %). The most common illegal drug resulting in presentation to A & E was ecstasy. An association was noted between problem ecstasy use and weekend presentations at a large London A & E department, with young adults presenting with overstimulation, disturbed behaviour and increased temperature.

Data collected from 60 individuals admitted to an on-site medical station during a techno music event in Ghent, Belgium, attracting around 37 000 people show that vomiting and abdominal pain was the most common health problem (14 cases). There were nine cases of each of the following: coma, agitation/anxiety, syncope and alcohol inebriation (Figure 9). There is increasing concern about the health risks of cocaine use following the increases in recreational use observed in some countries among young people. Such risks include cardiovascular problems (arrhythmias, myocardial infarction, cerebral haemorrhages), particularly in users with predisposing conditions or other risk factors (hypertension, angiomas,

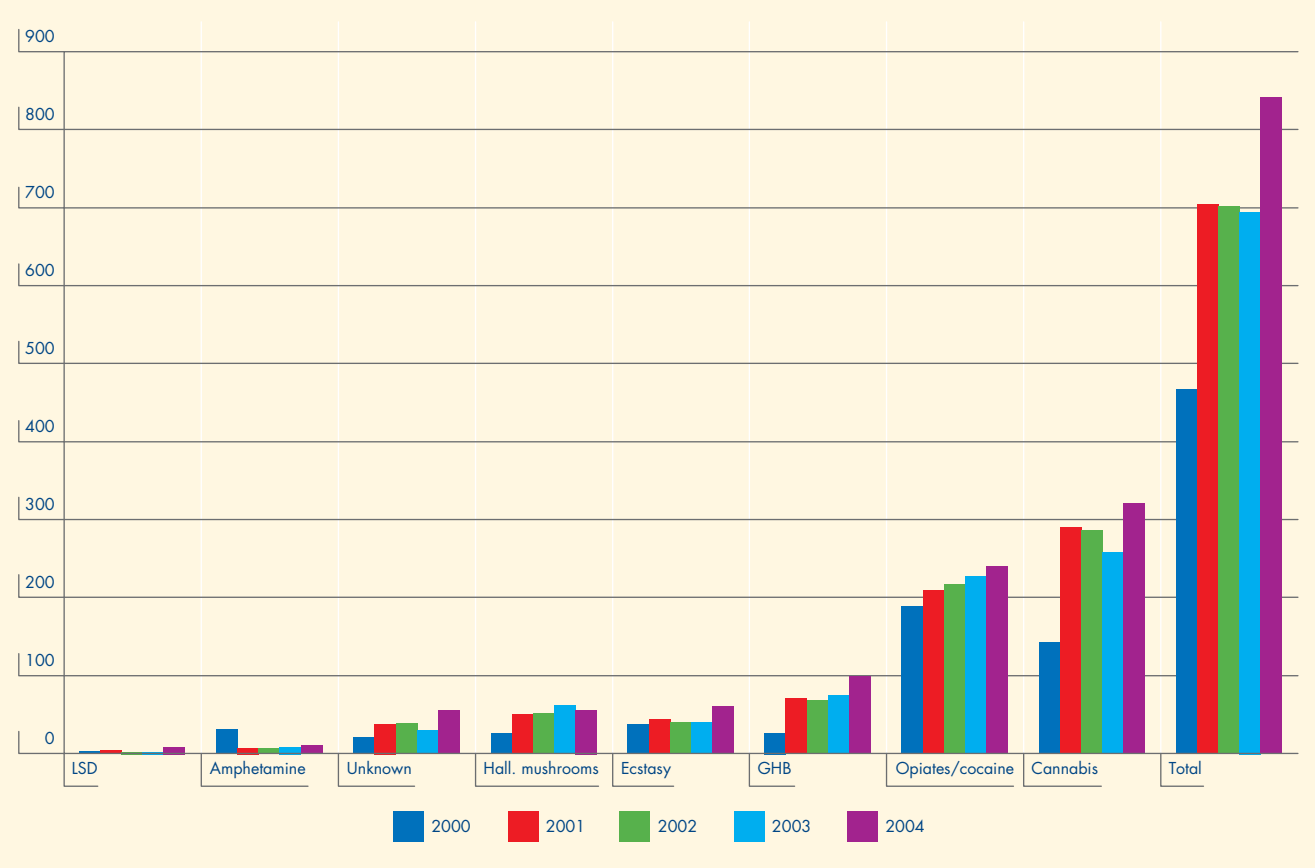
([5]) Possible ingredients of 'herbal xtc' products are ephedra alkaloids, *Sida cordifolia*, guarana, caffeine, Siberian ginseng, kola nut and andorn. Most of them are supposed to have a stimulating, energising effect.

([6]) *Salvia divinorum* is a sprawling perennial herb which grows wild only in the Sierra Mazatec region of Mexico. Its leaves contain the extremely potent substance salvinorin-A. It has a history of use as a divinatory psychedelic for oral use and has been widely available since the mid-1990s, primarily as a smoked herb.

([7]) Purple ohms capsules' main ingredient is *Argryria nervosa*, which contains lysergic acid amide (LSA).

([8]) Pep pills contain amino acid blend, citrus aurantium, black pepper extracts, piperine and piperazine blend. They attempt to replicate the rush of ecstasy.

Figure 8: Number of non-fatal emergencies due to drug use recorded by the Amsterdam municipal health service, 2000–04



NB: These emergencies involve both recreational drug users and problem drug users.
Source: Reitox national reports.

smoking), although these occurrences might pass unnoticed at present because of a lack of awareness. Cocaine is commonly consumed together with alcohol, a combination that may result in increased toxicity (Ghuran et al., 2001; Pennings et al., 2002).

Spain, Luxembourg, Hungary, Malta, the Netherlands, Slovenia, the United Kingdom and Norway reported that the health consequences of alcohol use were perceived as a significant problem. Data from the Netherlands in 2000 suggest that alcohol-related health incidents were on the increase. Some club surveys (Italy, United Kingdom *Mixmag*) have shown relatively high rates of psychological problems (such as depression, anxiety and sleep disturbances).

The effects of drugs such as ecstasy can be exacerbated in the club setting by continuous dancing, poor ventilation and overcrowding and insufficient water intake, all of which raise body temperature. Excessive water intake following ecstasy use can also create health problems. Regular overexposure to loud noise can damage hearing. Violence has also been associated with drug dealers in dance music settings, and unsafe sexual behaviour can also be considered a risk in this environment (United Kingdom national report).

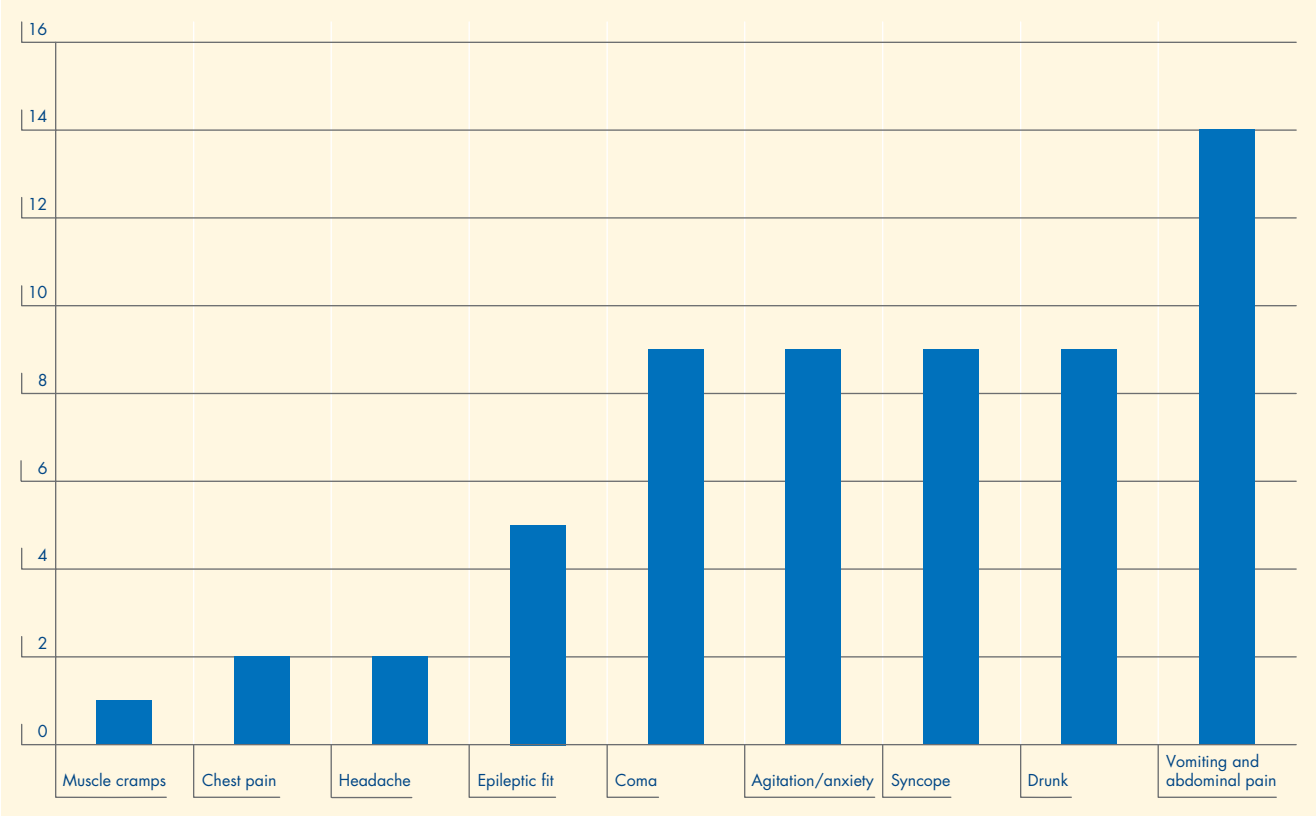
Deaths related to ecstasy, amphetamines and cocaine

Deaths related to ecstasy started to be reported in Europe during the 1990s as the drug became popular in dance music settings. This attracted considerable attention from the media as these deaths often occurred unexpectedly among socially integrated young people.

Data from the 2005 Reitox national reports suggest that deaths involving ecstasy remain relatively unusual compared with deaths from opioid use, although in some countries they are more common. In Europe as a whole, there were references to 77 ecstasy-related deaths, which should be considered a minimum estimate. Cases were reported by Denmark (2), Germany (20), France (4), Hungary (3) and the United Kingdom (48 cases with 'mentions' — 33 in England and Wales), where reporting is probably better than in other countries (9). In Spain, ecstasy was present in 2.5 % of fatal drug poisonings. Deaths related to amphetamine use are also infrequently reported.

(9) Depending on country, figures refer to 2003 or 2004.

Figure 9: Number of patients admitted to on-site clinics with drug-related problems at the 'I Love Techno' event in Ghent, Belgium, November, 2001 (37 000 attendees)



NB: The dominant drug involved was ecstasy in eight cases, GHB in seven and alcohol in three cases. When a combination was used, only the main drug was recorded.
Source: Reitox national reports.

The issue of the risk associated with ecstasy use has been widely debated. Bearing in mind the margin of error in survey-based estimates of prevalence and the difficulties in reporting drug deaths, dividing the number of fatalities observed by the number of users per year ([10]) (people at potential risk) yields rates of five to eight cases and two to five cases per 100 000 users in the two countries for which this calculation can be made.

The European data that exist indicate that many deaths involving cocaine also involve opioids. However, cocaine may be an unrecorded contributor to deaths from cardiovascular problems (Pennings et al., 2002). Deaths and non-fatal emergencies related to the use of GHB and ketamine are very rare (see Chapter 4 in the 2006 annual report).

Overall, deaths and health problems attributable to the use of ecstasy, amphetamines and cocaine may be limited by the fact that a large proportion of people who use drugs in recreational settings do so in relative moderation for the purposes of recreation. In-depth interviews with individuals who use drugs in dance music settings indicate that this group is interested and aware to some degree of the health and legal risks associated with their drug use. They adopt various strategies to minimise these risks. For example, they find out how to minimise the immediate physical health risks arising from the use of drugs and the excessive physical demands of clubbing. However, awareness and concern about alcohol-related problems and its long-term risks are less evident.

Further information about deaths and morbidity associated with drug use in general is available in Chapter 7 of the 2006 annual report.

Drug-facilitated sexual assault

In recent years, concern has also been expressed over the incidence of drug-facilitated sexual assault (DFSA) in dance music settings through the surreptitious administration of a psychoactive drug into drinks. However, obtaining forensic evidence of DFSA is problematic, and the complexity of this issue means that many cases may remain unreported. The most comprehensive United Kingdom study to be carried out to date reported that only 21 of 1 014 cases of alleged

([10]) Last year use in population surveys by population.

DFSA (2 %) were attributed to involuntary drug ingestion (Scott-Ham and Burton, 2005). This figure included three cases in which the drug was ecstasy, which may have been given to reduce inhibition rather than to induce sedation. No samples tested positive for flunitrazepam (Rohypnol), a drug often thought to be associated with such incidents. Nor is there much forensic evidence of GHB being used for this purpose. However, a small increase in dose of GHB can cause loss of physical control and consciousness. One study found that over 52 % of users experienced unconsciousness and 53 % experienced vomiting following use (Degenhardt et al., 2002).

Responses

This section deals with the response of the EU and its Member States, specifically in relation to legislation and preventative strategies to address new developments in drug use in recreational settings.

Legal responses at international and European level

Legal responses addressing drug use within recreational settings at international and European level are relatively limited and so we cannot refer to any statutory instruments that address this phenomenon. However, two resolutions adopted by the United Nations Commission on Narcotic Drugs and the Council of the European Union should be mentioned here.

First, in March 2001, recalling the new trends in drug use among young people, the Commission on Narcotic Drugs adopted Resolution 44/5 ([11]) on the recreational and leisure use of drugs among young people. The first point of this resolution foresees the possibility of states requesting guidance and assistance from the United Nations international drug control programme in developing strategies and programmes for reducing illicit drug use, especially among young people in recreational settings. It 'also encourages states to develop information systems and prevention programmes aimed at raising public awareness of the risks associated with the new trends in illicit drug use among young people, in particular in recreational areas'.

Within the European Union, a resolution ([12]) was adopted in 2002 by the Council and the representatives of the Member States. Addressing the prevention of recreational use of drugs, this instrument gives clear advice on the political priority of this topic, even if it does not create any obligations on national authorities in terms of competence.

From the point of view of policy, the new EU drug action plan 2005–08 clearly refers to drug use within recreational settings. It is up to the Member States to develop and improve prevention programmes for selected target groups and also specific settings, such as recreational settings ([13]). The EMCDDA has been asked to provide data by 2008 on prevention projects in recreational settings.

Legal responses at national level

National strategies in the Czech Republic, Greece, Cyprus, Lithuania, Hungary and Slovakia refer to recreational drug use. The main actions mentioned are prevention, harm reduction activities and training. In some other countries, first steps are being taken to extend the legal framework regulating prevention and intervention to reduce harm to include recreational settings. For example, in Luxembourg, the action plan on drugs 2005–09 includes a needs assessment in the techno scene to help devise measures for reducing risk, damage and nuisance.

There is no legislation in the Member States specifically dedicated to prevention and harm reduction activities or to the control of drug use in recreational settings. General legislation covering recreational settings refers occasionally to drug use and seems to be the most common approach taken by many countries. Two countries reported that drugs legislation regulating use, possession or trafficking contains specific provisions for regulating drug use in areas usually frequented by young people.

Legislation regulating recreational settings

National reports distinguish two types of legislation: first, legislation regarding the organisation of an occasional festival, concert or rave party and, second, legislation addressing regular nightclubs and dance music establishments.

France is the only EU Member State that has reported a strict legal framework for occasional recreational events. The new Article 23-I of the law giving guidance and programming for daily security (LOPS) requires the organisers of rave parties to declare their plans to the prefect of the department concerned. The 2002-887 Order of 3 May 2002 specifies the submission mode and Article 3 al. 2 requests that the organisers of such gatherings indicate the provisions planned in order to reduce harm linked to the use of alcohol or drugs.

Many risk reduction strategies have developed in the techno party scene over the past decade and the Order issued on 14 April 2005 finally offered a legal status to these strategies. It details the national reference framework for risk reduction strategies for drug users, such as the distribution and

([11]) CND Resolution 44/5 on the recreational and leisure use of drugs among young people, 29.3.2001.
([12]) Draft resolution of the Council and of the representatives of the Member States on the prevention of the recreational use of drugs. Cordrogue 2 Rev 3, 15.4.2002.
([13]) Objective 9 of the EU drugs action plan 2005–08. OJ C 168, 8.7.2005, p. 1.

promotion of clean equipment, and directions to emergency care, general care, specialised care and social services.

In Belgium, there are no legal requirements to obtain a licence or authorisation before the organisation of a rave party. Furthermore, the latest directive on drugs states that, although use of cannabis is illegal, possession for personal use should not necessarily be prosecuted. However, in the case of a special event, such as a rave party, which could create public nuisance, the law gives local authorities the power to issue a specific directive that enables possession for personal use, normally associated with the lowest penalties, to be punished with a higher penalty.

In the Netherlands, policy is not confined to possible dangers of specific drug use. Municipal guidelines were developed, including rules, regulations, agreements and suggestions for the owners of establishments where parties are organised and proposing cooperation between stakeholders. However, it is interesting to note that, since September 2002, mayors have been legally permitted to allow preventive searching in situations that are considered to present a high risk to public safety, such as violence (weapons), but also drug-related nuisance and health risks.

Some Member States have reported specific guidelines regarding the organisation of such parties, even if they do not have legal provisions on this topic. In Norway, for example, pursuant to the Police Regulations, organisers of events are obliged to notify the police of the time, place and expected size of the event. The security plan for such gatherings often includes body searches before admission to confiscate illegal objects and drugs.

In the same way, in Finland, recreational drug use is controlled by police monitoring and raids. Police officers circulate among festival crowds with drug detector dogs, and control measures have also been targeted outside events.

In addition to this legislation on occasional rave parties, some Member States reported legal provisions on regular nightclubs or dance venues that include articles referring to drug use.

Taking into consideration these kinds of establishments, it is possible to distinguish two different types of legislation: (a) laws dealing with the prevention of drug use in recreational settings; and (b) laws dealing with the consequences of drug use within such establishments.

In order to prevent drug use in nightclubs or dance clubs, Irish legislation allows the prohibition of a person entering or being in the vicinity of licensed premises or a dance hall if he/she is the subject of an exclusion order. Such exclusion orders are imposed on persons convicted of a public order offence, such as intoxication (being under the influence of any alcoholic drink, drug or solvent or other substance).

With the same objective, the national strategies of Greece and Cyprus suggest that actions to prevent drug use should be developed. Ireland and the United Kingdom have a legal framework providing training and support for nightclub staff to optimise ways of addressing drug problems. As of April 2005, all door supervisors at bars and clubs must have a security industry authority licence, which means that they must have specific qualifications and must take part in a training course that covers drug awareness. From a non-legal point of view, but with the same aim of prevention, a training course in first aid to deal with drug accidents in recreational settings has been implemented in the Netherlands. Individuals who complete the course are able to train other people working in recreational settings. A handbook for coffee shop owners has also been produced to encourage prevention in coffee shops, and a plan, 'Nightlife and Drugs 1998–2001', has been formulated by the Trimbos Institute.

Some countries have specific national legal frameworks that regulate the licensing of recreational establishments and their eventual liability in case of drug use on their premises. The most common consequence is revocation of the licence.

In Ireland, for example, the Licensing (Combating Drug Abuse) Act 1997 provides for permanent disqualification from obtaining a licence for intoxicating liquor on conviction of a drugs offence. It also provides for the permanent revocation of such a licence on conviction of a drugs offence. Such revocation is also provided for in the case of sale of controlled drugs on the premises of the establishment. In that case, the licence holder will be disqualified for five years.

Similarly, in the United Kingdom, according to the Public Entertainments Licences (Drug Misuse) Act 1997, a licence may be refused or revoked if:

(a) the local police commissioner states (and gives evidence) that there is a serious problem relating to the supply or use of controlled drugs at the premises, or any premises nearby controlled by the licence holder (such as a club car park); and

(b) the licensing authority is satisfied that refusal to issue or renew the licence will significantly assist in dealing with the problem.

Norway also reported that, under the Alcohol Act, which includes regulatory provisions relating to the sale and serving of alcohol, an alcohol licence, delivered by municipal councils (licensing authorities), can be revoked if the repeated sale of drugs in the licensed premises is discovered.

The Spanish Organic Law 1/1992 Protection of Citizen Safety strictly prohibits the consumption and traffic of illicit narcotics and psychotropic substances in public venues or establishments, or a lack of diligence in enforcing this

prohibition by owners, managers or overseers of the establishment.

Finally, in Lithuania, no specific legal provision stipulates control and prevention of drug use in recreational settings but a proposed amendment to the draft revision of the Administrative Code stated that owners of recreational settings shall be prosecuted for taking no action to prevent and report distribution and use of narcotic and psychotropic substances within their establishments. The proposal was rejected.

In addition to licensing legislation that specifically addresses recreational settings, provisions relating to drug use in recreational settings can be found in national drug legislation. It is common for national legislation to include provisions regulating the sale or use of drugs near schools ([14]). However, only two Member States (Denmark and Malta) have provisions in their drugs legislation that consider use near recreational settings usually frequented by young people as an aggravating circumstance in a drug offence. In Denmark, a 2004 amendment to the Euphoriants Act makes it an aggravating circumstance to sell drugs (or to offer them free of charge) in restaurants or discotheques or at concerts and music festivals or similar places typically attended by children or young people. Similar provisions exist in Malta, where punishments are increased by one degree if the offence takes place within 100 metres of the perimeter of a school, youth club or any place frequented by young people.

Prevention

Drug prevention activities in recreational settings

For the purposes of this section on prevention activities, dance music settings are distinguished mainly by their size — large music festivals and smaller commercial recreational music settings (raves and clubs).

Large music festivals

The most frequently used responses to drug-taking in the context of large music festivals and dance events are targeted public information campaigns (Belgium, Denmark, Poland, Sweden, Norway) and the distribution of brochures on specific substances through mobile teams. Several Member States provide structural risk reduction measures such as water distribution and healthcare support delivered by first aid teams (Belgium, Denmark).

In several countries, information campaigns are selectively targeted at large festivals. These campaigns focus on information about overheating, the importance of peer group support and not dancing alone, first aid, the risks of combining drugs and the importance of drinking water (Partywise, Belgium). In some countries, campaigns strive to encourage critical attitudes towards drug use, e.g. the Czech Republic, Denmark (see box), Germany, Hungary, Austria and Poland.

The delivery of other interventions, which are largely information based, at large events is usually carried out by trained peers at information stands. Brochures or leaflets/flyers about drugs and sexually transmitted diseases, as well as condoms, are provided. Typically, a number of different self-help, non-governmental or scene-based organisations provide interventions at these large events. These organisations acknowledge that drugs play a part in the festival scene and, while stating that the safest option is not to take drugs at all, they usually neither proscribe nor condone the use of illegal drugs (Belgium, the Czech Republic, Austria). Risk reduction materials are usually developed in styles that emulate youth cultures.

Volunteers who provide peer education at large festivals may occasionally be recreational drug users themselves or have used drugs in the past. In these cases, the objective is to be able to answer questions from young people about safe use and risk reduction, rather than to prevent drug use (Germany, the Netherlands). This approach has been criticised on the grounds that such volunteers tend to adopt rather pro-drug

An example from Denmark — Roskilde festival/ Festivaldanmark against drugs

In 2005, following earlier work at the Roskilde festivals in 2003 and 2004, a national campaign project subsidised by the National Board of Health was launched involving various festival planners. The campaign included an anti-drug statement in the Roskilde festival programme and on the website, a logo, Go-cards (electronic as well as printed), car streamers, badges, posters and fact folders on drugs. The campaign encouraged debate about drug use among the participants at the Roskilde festival. The anti-drug statement in the festival programme and in large screen spots before major concerts and in buses were some of the elements considered to have had maximum effect. Evaluations claim that the drug prevention messages at Roskilde festival reached 80 % of the participants, while 29 % discussed the campaign with their friends and 93 % agreed that it was a good idea. In addition, a new peer counselling prevention and harm reduction initiative entitled 'Are you experienced?', financed by the Ministry of Social Affairs and aimed at drug users at the Roskilde festival, was established in 2005. This was based in a graffiti-painted bus near the electronic music area, where former drug users provided counselling, information and practical support to young people.

For further details see EDDRA http://eddra.emcdda.europa.eu/pls/eddra/showQuest?Prog_ID=5156

([14]) See 'New national laws: young people' in the 2005 annual report for more information.

attitudes (Calafat et al., 2004). It has been recommended that the selection of peers for work in such settings should ensure that their attitudes and approaches match the specific aims of the intervention, for example to emphasise reducing drug use.

It has been suggested that a recent increase in small and fragmented private dance music events may be partly the result of the reaction of organisers who wish to avoid new regulations. For example, in France gatherings of fewer than 250 individuals do not have to be officially declared to a prefecture and have therefore become more common in some cities. Information about these events is usually disseminated through informal acquaintance networks. Consequently, gaining access to these events and communicating with the target groups is more difficult than it was in the past at larger and well-publicised events. New and different responses are required, which have resource implications as prevention efforts have to cover many more events but overall reach fewer people. An Austrian organisation (MDA Basecamp, Tyrol) recruits young people aged between 16 and 22 to work for the organisation at dance music events (taking photographs, distributing flyers) or in a youth centre and who participate in training courses in order to acquire additional youth work experience.

Commercial recreational music settings (raves and clubs)

Interventions in these smaller commerical music settings are now becoming increasingly common in the Czech Republic, Germany, France and Poland, where they often receive political support. Provision of information is the most common intervention in these settings, but other intiatives may include counselling and relaxation techniques.

Structural measures in recreational environments are also implemented, for example freely available cool drinking water, ventilated seating ('chill-out') areas and trained staff on site for medical emergencies. And in Germany, an initiative has been implemented to ensure that alcohol-free drinks are available at a lower price than alcoholic drinks.

Risk reduction interventions provide information about different substances, the consequences of their use and the best way to avoid problem use. In the absence of any criticism of drug use, they are sometimes viewed as implicitly condoning or accepting drug use as an integral aspect of youth culture (Portuguese national report).

Tourist locations

Interventions targeting concentrations of dance music settings in tourist locations have been reported by several countries (Belgium, Spain, the United Kingdom and Norway). Prevention activities in these locations usually involve the creation of websites, distribution of flyers, information campaigns and peer support. Some attempts have been made to encourage professionals in the entertainment industry to work with local authorities. Environmental strategies and regulations in these settings appear to be rare.

Environmental strategies: clubs, restaurants and the leisure industry

In an increasing number of countries (Belgium, Denmark, Ireland, Italy, the Netherlands, Sweden, the United Kingdom and Norway) there appears to be an interest among municipalities in establishing closer contact with the relevant players in dance music and other recreational settings (local police force, restaurant owners, commercial dance music establishments).

Typically, municipalities target preventive activities at nightlife settings to limit the availability of drugs in recreational settings and reduce the health risks. The type and extent of intervention varies. Interventions range from a series of training courses offered to doormen and barmen to large-scale local development projects involving local players such as restaurant associations, police, licensing authorities, fire services, tax and customs authorities.

In some countries non-municipal formal working groups have been established, such as the German 'Healthy nightlife' and the Hungarian 'Safe entertainment venue programme'. These working groups are made up of representatives from drug counselling facilities, scene-based initiatives, government authorities and organisers of dance music events. The working groups serve as a forum for introducing minimum standards of drug prevention in dance music and other recreational settings. Minimum standards for nightlife venues regarding security and hygiene are the rule in Luxembourg and the United Kingdom, and these standards are controlled by specific health departments. As concern about alcohol-related problems grows, countries such as the Netherlands and the United Kingdom have started to relate prevention initiatives in recreational settings to alcohol. In the Netherlands it has been recommended that preventive strategies should place a stronger emphasis on alcohol in order to reduce the incidence of serious violence.

Safe clubbing guidelines, such as those developed in the United Kingdom (see box), are now being found in other countries. In Belgium, Partywise has produced a manual including safe clubbing guidelines and some information on creating a safe and healthy physical environment, for example by preventing overcrowding and overheating and ensuring free water supplies. The manual includes supplementary prevention messages concerning location, first aid and safety in road traffic as well as information relating to controlling the amount of drugs on the premises. The manual promotes a tailor-made alcohol and drug policy for club managers, organisers of music events, local

governments and youth workers with feasible prevention interventions (De Vriendt et al., 2005). Brussels has developed a similar manual, *Charte de Bien-Etre*.

Pill testing

On-site pill testing ([15]) is becoming less common in Europe than it was in the past. The main arguments against pill testing are that the cost–benefit ratio is poor and that, by permitting on-site pill testing, contradictory messages are being sent out about the risks related to both use and possession of controlled substances. The capacity of on-site tests to accurately detect harmful substances is limited, and for this reason testing in France was banned in April 2005. Czech non-governmental organisations were told in 2004 not to use subsidies, including staff wages, for qualitative testing of tablets containing synthetic drugs. In Belgium, where, since 1996, pill testing within a limited number of events had been allowed, the Minister for Justice forbade pill testing in 2002. However, in Belgium a new experimental project has been designed combining on-site and laboratory pill analysis, integrated within harm reduction activities. This will include an external evaluation.

Safer dancing guidelines

The 'Safer clubbing' guidelines ([1]), jointly developed by organisers, club owners, users' organisations and prevention agencies, aim above all to create a safe physical environment. Health hazards in recreational settings more often arise from how events are organised rather than directly from drug use (e.g. intoxication or unexpected effects). Above all, overcrowding, poor ventilation, lack of affordable drinking water, violence and accidents from broken glass are addressed. But guidelines also deal with drug dealing and the training of door supervisors to organise searches and supervise toilet areas. Training in first aid and early detection of drug-induced problems is included. Sometimes, 'amnesty bins', where club attendees can drop objects (including drugs) before being searched, are put next to entrances. Recommendations for drug prevention by distributing information and outreach teams are included.

The guidelines include aspects related to local communities, for example promoting liaison with local agencies and police officers to organise safe transport and ensure that people can get home safely.

These guidelines are being largely applied in Belgium, northern Italy and the United Kingdom.

([1]) 'Safer clubbing' guidelines are available at http://www.clubhealth.org.uk

Legal difficulties have presented another problem for on-site pill testing. The drug testing scheme drawn up by MDA Basecamp in the Tyrol in Austria under the name of 'fact' was not approved on legal grounds. However, in Austria, ChEckiT! continues to test pills and in addition expanded its legal counselling services in 2005 so that a lawyer is now available for answering drug-related legal questions for one hour each week. From a toxicological perspective, justification for maintaining on-site pill testing is diminishing as the risk of pills being adulterated appears to be low. The contents of drug samples tested by the Dutch Drug Information and Monitoring System (DIMS) showed that, since 1998, pills sold as ecstasy have been reasonably 'pure', meaning that that they contained mainly MDMA-like substances. However, the percentage of high-dose MDMA tablets has increased, and this system has made important contributions to alerts and early warning about new drugs.

The main argument in support of on-site pill testing is that it offers a valuable and effective means for establishing contact with recreational drug users in the dance setting (Benschop et al., 2002). In the Czech Republic, in 2003, more than 500 direct contacts with drug (especially ecstasy) users were established at the largest dance event in Brno. However, during the same event in the spring of 2005, only 65 people visited the tent (after pill testing restrictions were implemented), and close contact was established with only eight.

Websites

Prevention strategies have made use of the Internet to establish low-threshold contact with young people who take drugs or might be considering taking drugs. In many Member States, information and prevention is being provided through Internet websites to promote critical reflection among young people about their own consumption behaviour. These sites provide advice, for example about going out 'wisely', safe sex, road traffic risks, healthy diets, party tourism and legal issues (Belgium) ([16]).

Online support is also provided to help people reduce or stop drug taking or to refer them to other local help services. Increasingly, such Internet sites include interactive modules for the self-assessment of risk or dependence ([17]). In 2004, the German Internet portal www.drugcom.de received 25 % more hits than in the previous year. An analysis of visitors to the site showed that about two thirds of them were under 22 years of age, 75 % of them had experience with cannabis and about 50 % were currently using the substance. These figures demonstrate that an important target group can be reached via the Internet.

([15]) Pill testing is a widely used term for the chemical testing of drugs whether in the form of tablets, powders or liquids.

([16]) Links to some of these may be seen at http://www.emcdda.europa.eu/?nnodeid=5575

([17]) Belgium: www.partywise.be; Germany: www.drugcom.de; Austria: www.onlinedrogenberatung.at

Paradigm shift in prevention

There has been a paradigm shift in approaches to prevention towards increasing recognition of the key role that lifestyle fashions play in recreational nightlife settings and challenging drug-related normative beliefs. Environmental strategies that modify the availability of legal drugs and the settings where drugs are consumed have been shown to be more effective in preventing drug use than educative–persuasive measures alone (Paglia and Room, 1999).

First, there has been growing recogition that information-based approaches alone are not effective and that strict abstinence-oriented messages are not realistic in party settings. At the same time, the sort of harm reduction approaches employed to address some of the problems of chronic heroin addiction are not considered desirable or appropriate for young recreational drug users. Therefore, lifestyle fashions, beliefs and attitudes of young target groups and the symbolic aspects of drugs and drug use are being given more consideration than in the past (Kemmesies, 2000).

Some incipient environmental prevention strategies in this field are therefore trying to go further than simply providing safer environmental conditions for young people in recreational settings or reducing the availability of drugs. There is increasing recognition that prevention strategies could aim to influence young people's approaches towards having 'fun' without using drugs.

An Austrian prevention project emphasises moderation using values such as good preparation (before drug use), being in control (during) and reflection (see, for example, www.risflecting.at). Research by IREFREA on people who consume less or not at all in recreational settings shows that they are often female and the research postulates prevention goals that promote moderation and a more 'female' approach towards drug use (Calafat et al., 2003; see also the selected issue on gender).

Secondly, there have been new developments in the creation of working groups and the production of guidelines for environmental strategies. These are, to a certain extent, the first preventive responses that have engaged with and made demands on the entertainment and drinks manufacturing industries and brought together professional groups involved with recreational settings. The efficacy of these approaches has yet to be evaluated.

In some countries, no interventions in recreational settings have been reported, although sometimes those working in the recreation industry have expressed interest in participating in preventive interventions.

Conclusions

Research studies targeted at young people in the EU who attend dance music events consistently report much higher prevalence of drug use than that found in surveys of the general population. This appears to be the case in all of the countries where such surveys have been conducted — despite the heterogeneity and fragmentation of dance music settings and other methodological constraints that present challenges to issues of measurement and comparability.

The relatively high prevalence of drug use recorded by surveys conducted in dance music settings provides a clear target for initiatives in prevention and this has been recognised in the EU drug action plan 2005–08. Some recent national developments in dance music settings show that effective responses are no longer confined to measures aimed at informing and persuading individuals. Environmental and prevention strategies that aim to modify the availability of alcohol and tobacco, the settings where drugs are consumed and the drug-related normative beliefs held by young people all appear to have been effective in ameliorating the risks of drug use. However, so far only some countries have embraced these new approaches. Wider economic interests, new technology and lifestyle trends will continue to have significant influence on developments in recreational dance music settings.

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European Monitoring Centre for Drugs and Drug Addiction

Annual report 2006: selected issues

Luxembourg: Office for Official Publications of the European Communities

2006 — 57 pp. — 21 x 29.7 cm

ISBN 92-9168-250-0

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The EMCDDA collects, analyses and disseminates objective, reliable and comparable information on drugs and drug addiction. In doing so, it provides its audiences with an evidence-based picture of the drug phenomenon at European level.

The Centre's publications are a prime source of information for a wide range of audiences including policymakers and their advisors; professionals and researchers working in the field of drugs; and, more broadly, the media and general public.

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ISBN 92-9168-250-0
9 789291 682508