NSW Party Drug Trends 2000

Findings of the Illicit Drug Reporting System (IDRS) Party Drugs Module

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LIST OF ABBREVIATIONS

ACON	AIDS Council of NSW
ACPR	Australasian Centre for Policing Research
ADIS	Alcohol and Drug Information Service
AFAO	Australian Federation of AIDS Organisations
AFP	Australian Federal Police
AGAL	Australian Government Analytical Laboratories
CDHAC	Commonwealth Department of Health and Aged Care
DASC	Drug and Alcohol Services Council (South Australia)
GHB (GBH)	Gamma-hydroxy-butyrate ('grievous bodily harm')
IDRS	Illicit Drug Reporting System
IDU	Injecting drug user(s)
KI(S)	Key Informant(s)
LSD	*d*-lysergic acid
MDA	3,4-methylenedioxyamphetamine
MDMA	3,4-methylenedioxymethamphetamine
NDARC	National Drug and Alcohol Research Centre, University of New South Wales
NDLERF	National Drug Law Enforcement Research Fund
NDS	National Drug Strategy
NSP	Needle and syringe program

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EXECUTIVE SUMMARY

The 2000 IDRS was expanded to examine the feasibility of monitoring trends in the market for party drugs using the extant IDRS methodology. In the first of the two year trial, the study successfully accessed the appropriate sentinel population of party drug users, who were able to provide information about the price, purity and availability of ecstasy and other party drugs, along with self-reported patterns of drug use and associated harms. Key informants who, through the nature of their work, have regular contact with ecstasy users, were also identified, and were willing to provide information about these users that was used to validate and contextualise the users' reports. Extant indicator data sources relating to ecstasy were identified and accessed, including seizure purity data, telephone drug and alcohol information service data, and National Drug Strategy Household Survey data. Although there are not as many relevant indicator data sources for ecstasy as there are for a drug such as heroin, the sources that were identified were successfully triangulated against the reports of users and key informants to provide a comprehensive snapshot of the market for party drugs. Thus, the first year of the trial indicated that the IDRS can successfully monitor illicit drug markets other than those which it has to date been used to monitor, namely heroin, amphetamine, cocaine and cannabis.

The results of the party drugs module of the IDRS indicated that party drug users, a population defined in this study by regular use of tablets sold as 'ecstasy', tend on the whole to be young, relatively well-educated, and likely to be employed or engaged in studies. The majority of subjects had not had contact with police or other social authorities, did not come from socially deprived backgrounds, and few engaged in crime other than drug dealing. None were currently in treatment for a drug-related problem, and only a small proportion had previously been incarcerated.

The results suggest further that a broad range of people engage in regular ecstasy use. The 94 subjects in the present sample typically began to use ecstasy in their late teens, and current frequency of use varied from once per month to several days per week; more than one-third of the sample used ecstasy at least once a week. Almost half had used ecstasy continuously for more than 48 hours in the preceding six months. One-third had used more than four tablets in a single use episode in the preceding six months, and more than half reported that they 'typically' used more than one tablet. Consistent with other reports, use of ecstasy was primarily through oral routes, but 12% had injected ecstasy. However, very few subjects reported that they had used ecstasy mainly by injection in the preceding six months.

This sample could accurately be described as extensive polydrug users, half of which had a preference for ecstasy. On average, subjects had tried ten drugs in their lifetime and had used seven in the preceding six months. Substantial minorities of the sample regularly used drugs such as alcohol, cannabis, tobacco, amphetamine, and cocaine concurrently with ecstasy, and drugs such as cannabis, alcohol and benzodiazepines to ease the 'come down' or recovery period following acute ecstasy intoxication.

On average, subjects reported nine recent physical and five recent psychological side-effects which they perceived as due, at least in part, to their use of ecstasy.

These side-effects were consistent with those described in earlier reports of ecstasy users, although it is certainly the case that current Australian research reports a higher incidence of side-effects among users than earlier research conducted internationally. Ecstasy-related occupational, relationship and financial problems were also reported relatively frequently by the present sample, and although many of these were relatively minor, some constituted significant disruptions to functioning, including loss of employment, the ending of relationships, and the inability to pay for food or rent.

The results relating to demographic characteristics, patterns of ecstasy and other drug use, and ecstasy-related harm, were notable for their similarities to the results of a study of ecstasy users conducted by NDARC in Sydney in 1997. Given such marked similarities, it seems reasonable to suggest that the main change in Sydney's party drug market since 1997 has been its expansion. Both users and key informants in the present study consistently reported that the number of people using ecstasy has increased recently and that, in recent years, ecstasy has become a mainstream drug firmly established in the illicit drug landscape in Sydney. These reports are validated by the results of the 1998 NDS Household Survey, which indicated that prevalence of both lifetime and recent use of ecstasy in Australia had doubled since the 1995 survey. In short, similar sorts of people are using ecstasy and other drugs in similar sorts of ways to 1997; it is just that, now, there are more of them than there were three years ago.

The expansion of the market for ecstasy may explain its $10 decrease in price since 1997. Forty dollars is currently the standard price for a single tablet of ecstasy, whereas in 1997 a tablet cost $50. Tablets sold as ecstasy have remained readily available since that time, although it seems highly likely that the proportion of tablets which are manufactured locally has increased since 1997 and that there has been a concomitant decrease in the proportion of tablets available which actually contain MDMA. On the other hand, seizures of ecstasy made in NSW suggest that those tablets which do contain MDMA have steadily increased in purity since 1996, with an average purity in 1999/00 of 37%. It is extremely likely that the majority of these tablets are imported into Australia, generally from Europe and/or the United Kingdom. The small numbers of subjects who felt confident enough of their knowledge about other party drugs to comment on their price, purity and availability indicates relatively limited exposure to such drugs among this sample.

In conclusion, patterns of extensive polydrug use and substantial rates of drug-related harm were reported by the current sample of ecstasy users, as they were in a separate study of the same population conducted in 1997. Although authorities have continued to fight to reduce the importation and local manufacture of drugs such as ecstasy in this country, they remain readily available to interested consumers, and in fact have become cheaper, purer, and more widely used since this time. The importance of continued monitoring of such a dynamic market, the current participants of which may experience significant harms, both presently and in the future, cannot be understated.

1.0 INTRODUCTION

The Illicit Drug Reporting System (IDRS) is an ongoing project funded by the Commonwealth Department of Health and Aged Care (CDHAC) that has been conducted on an annual basis in NSW since 1996, and in all states and territories of Australia since 1999. To date, the purpose of the IDRS has been to provide a coordinated approach to the monitoring of the use of illicit drugs, in particular, amphetamine, cannabis, cocaine and heroin. It is intended to serve as a strategic early warning system, identifying emerging trends of local and national concern in various illicit drug markets. The study is designed to be sensitive to such trends, providing data in a timely fashion, rather than to describe phenomena in detail, such that it will provide direction for more detailed data collection on specific issues.

The IDRS data collection consists of three components: interviews with illicit drug users, interviews with professionals who work with illicit drug users, and indicator or secondary data sources, such as national drug use household surveys, customs data, arrest data, hospital accident and emergency data and so on. These three data sources are triangulated against each other in order to minimise the biases and weaknesses inherent each one, to ensure that only valid emerging trends are documented.

In June 2000, the National Drug Law Enforcement Research Fund (NDLERF), administered by the Australasian Centre for Policing Research (ACPR), funded a two year, two state trial of the feasibility of monitoring emerging trends in the markets for ecstasy and other 'party drugs' using the extant IDRS methodology. For the purposes of the IDRS, the term 'party drug' is considered to include any drugs that are routinely used in the context of entertainment venues such as nightclubs or dance parties but are not already monitored by the main IDRS. This includes drugs such as ecstasy, LSD, ketamine, MDA (3,4-methylenedioxyamphetamine) and gamma-hydroxy-butyrate (GHB or 'GBH' for 'grievous bodily harm').

The sites chosen for the trial of the 'party drugs' component of the IDRS were New South Wales and Queensland. The Drug and Alcohol Services Council (DASC) of South Australia agreed to provide funding to allow the trial to also proceed in that state. It was decided that consistency should be maintained between the main IDRS and the 'party drugs' component wherever possible. Therefore, like the main IDRS, the focus of the party drugs component was on the capital cities of the participating states, as new trends in illicit drug markets are more likely to emerge in large cities rather than regional centres or rural areas.

The data described in this report represent a summary of the trends in ecstasy and other 'party drug' use found in Sydney in 2000. These trends have been extrapolated from three data sources:

1. face-to-face interviews with 94 current ecstasy users recruited in Sydney;

2. telephone interviews with 19 key informants who, through the nature of their work, have regular contact with ecstasy users in Sydney; and

3. indicator data sources such as purity data from seizures of ecstasy made in NSW, and prevalence data drawn from the National Drug Strategy (NDS) Household Surveys.

An earlier study of ecstasy users in Sydney, conducted by NDARC in 1997 and funded by the (then) Commonwealth Department of Health and Family Services (Topp *et al.*, 1998; 1999), has been used to provide baseline data from which to draw comparisons with the present sample of 94 ecstasy users. The statistical constraints of drawing such comparisons are considered more fully in Section 4.2, but it should be briefly noted that the methodology of the two studies was identical, including the criteria for participation, questions asked, recruitment methods and statistical analyses.

State comparisons of party drug data will be presented elsewhere (Topp, Humeniuk & McAllister, *in preparation*). Data on other drug classes at state levels are presented in other IDRS reports (Bruno & McLean, 2001; Darke, Topp & Kaye, 2001; Fry & Miller, 2001; Hargreaves & Lenton, 2001; Humeniuk, Ali, Machin & Shimamoto, 2001; McAllister, 2001; O'Reilly & Rysavy, 2001; Williams, Bryant & Hennessy, 2001). A national overview of trends in other illicit drug markets will be presented in *Australian Drug Trends 2000* (Topp, Darke *et al.*, *in preparation*).

1.1 Study aims

The specific aims of the party drug module of the NSW IDRS 2000 were:

1. to investigate the feasibility of adding ecstasy and other party drugs to the list of drug classes monitored by the IDRS using the extant IDRS methodology;

2. to describe the characteristics of a sample of ecstasy users in Sydney;

3. to examine the patterns of ecstasy and other drug use among a sample of current ecstasy users;

4. to document the current price, purity and availability of ecstasy and other party drugs in Sydney;

5. to examine subject's perceptions of the incidence and nature of ecstasy-related harm, including physical, psychological, financial, occupational, social and legal harms;

6. to identify emerging trends in the party drug market that require further investigation; and

7. to compare key findings of the present study with those reported by Topp *et al.* (1998; 1999).

2.0 METHOD

2.1 Survey of ecstasy users

2.1.1 Recruitment

A total of 94 ecstasy users were interviewed in August 2000 for the party drugs component of the IDRS, all of whom resided in the Sydney metropolitan region. Subjects were recruited through a purposive sampling strategy (Kerlinger, 1986), which included advertisements in entertainment and gay and lesbian newspapers, interviewer contacts, and 'snowball' procedures (Biernacki & Waldorf, 1981). 'Snowballing' is a means of sampling 'hidden' populations which relies on peer referral, and is widely used to access illicit drug users both in Australian (e.g., Boys *et al.*, 1997; Ovendon & Loxley, 1996; Solowij *et al.*, 1992) and international (e.g., Dalgarno & Shewan, 1996; Forsyth, 1996; Peters *et al.*, 1997) studies. Initial contact was established through newspaper advertisements or interviewers' personal contacts. Following interviews, subjects were asked if they would be willing to tell friends who they thought might be able to provide the desired information about the study.

2.1.2 Procedure

Subjects contacted the researchers by telephone and were screened for eligibility. To meet entry criteria, subjects had to be at least 16 years of age (due to ethical constraints), they must have used ecstasy at least six times over the preceding six months, and they must have been a resident of the Sydney metropolitan region for at least 12 months. Given that ecstasy is undoubtedly the most widely used of the so-called 'party drugs', it was decided that regular ecstasy use should define the sentinel population of 'party drug users' that the study sought to recruit. There is in Australia an extant market for ecstasy (tablets sold purporting to contain 3,4-methylenedioxymethamphetamine [MDMA]) that has existed for more than a decade. In contrast, the other drugs used by this population have either declined substantially in popularity since the appearance of ecstasy in this country (e.g., LSD), fluctuate widely in availability (e.g., 3,4-methylenedixoyamphetamine [MDA]), or are relatively new in the market and are yet to be as widely used as ecstasy (e.g., ketamine and gamma-hydroxy-butyrate [GHB]).

Subjects were assured that all information they provided was strictly confidential and anonymous, and that the study would involve a face-to-face interview which would take approximately 45 minutes. All subjects were volunteers who were reimbursed AUD$30 for their participation. Interviews took place in varied locations, agreed upon with the subjects, such as their homes, the Research Centre, pubs, coffee shops or parks, and were conducted by one of three interviewers trained in the administration of the interview schedule. The nature and purpose of the study was explained to subjects before informed consent to participate was obtained.

2.1.3 Measures

Subjects were administered a structured interview schedule based on a national study of ecstasy users conducted by NDARC in 1997 (Topp *et al.*, 1998; 1999), which itself incorporated items from a number of previous NDARC studies of ecstasy (Solowij *et al.*, 1992) and amphetamine (Darke *et al.*, 1994; Hando & Hall, 1993; Hando, Topp & Hall, 1997) users. The interview schedule focussed primarily on the six months preceding the interview, and assessed sample characteristics; ecstasy and other drug use history, including frequency and quantity of use and routes of administration; physical and psychological side-effects of ecstasy, other ecstasy-related problems, including relationship, financial, legal and occupational problems; price, purity and availability of a number of different 'party drugs'; and general trends within this market, such as new drug types, new drug users and police activity.

2.1.4 Data Analysis

For continuous, normally distributed variables, *t*-tests were employed and means reported. Where continuous variables were skewed, medians are reported and the Mann-Whitney *U*-test, a non-parametric analogue of the *t*-test (Siegel & Castellan, 1988), was employed. Categorical variables were analysed using χ^2. Gender differences are noted when significant. To determine the variables independently associated with having ever injected ecstasy, multiple logistic regressions were conducted. Odds rations (OR) and 95% confidence intervals (CI) were calculated. Backwards elimination of variables was used to remove those variables not significantly predictive of the outcome, as indicated by the Wald χ^2 (Hosmer & Lemeshow, 1989). To determine the variables independently associated with ecstasy-related harm, simultaneous multiple linear regressions were conducted. All analyses were conducted using SPSS for Windows, Version 9.0 (SPSS Inc., 1999).

A sample suitable for comparison with the present sample was drawn from a large multi-site study of ecstasy users conducted in 1997, funded by the (then) Commonwealth Department of Health and Family Services, and coordinated by NDARC (Topp *et al.*, 1998; 1999). The sample of 173 ecstasy users interviewed in Sydney in 1997 and used in this report to provide comparative data comprised those ecstasy users recruited for the earlier study who had used the drug at least six times in the six months preceding the interview. This ensured that comparisons were drawn between the present sample and ecstasy users interviewed in 1997 using the same recruitment methods and with equivalent patterns of ecstasy use.

2.2 Survey of key informants

To maintain consistency with the main IDRS, it was decided that the eligibility criterion for key informant (KI) participation in the party drug component would be regular contact, in the course of employment, with a range of ecstasy users throughout the preceding six months. Nineteen key informants (KIS) from various metropolitan regions of Sydney reported in telephone interviews with the first author on the ecstasy users with whom they had contact in the six months preceding the interview. Fifteen KIS were male and four were female.

It was difficult initially to identify KIS who were able to comment on ecstasy as a result of their regular contact with ecstasy users through their work. Clearly, ecstasy is a relatively new drug in Australia, having been widely used for only a decade, and users generally do not present for treatment or to other agencies such as needle and syringe programs (NSP), as do users of other illicit drugs such as heroin or cocaine. Although some health professionals were interviewed, it proved necessary to look beyond the health sector to the entertainment industry, and, in particular, to the dance music industry, in order to identify people who could be considered 'experts' on ecstasy and ecstasy users.

Thus, the 19 ecstasy KIS represented a range of occupations. Two were medical officers who provided first aid at entertainment venues such as nightclubs and dance parties, and five were health promotion workers with organisations such as the AIDS Council of NSW (ACON) and the Australian Federation of AIDS Organisations (AFAO). Also interviewed were two DJs, one of whom played only at underground parties catering for a young heterosexual clientele, and one of whom played at two of Sydney's major nightclubs, one of which is primarily a gay and lesbian venue. A researcher currently conducting research into the effects of ecstasy use on memory; four party promoters; a nightclub owner; the head of security for one of Sydney's leading clubs; the manager of a dance music radio station; and two user representatives also acted as KIS for the party drugs component of the IDRS.

Seventeen KIS stated that they knew about the ecstasy users of whom they spoke through both their work and their personal life and two obtained their knowledge solely through their work. Six stated that they worked primarily with the gay and lesbian community, two worked primarily with HIV+ gay men, and one worked primarily with youth. The extent of KIS' contact with ecstasy users ranged from one to seven days per week over the preceding six months, with an average of 3.4 days contact per week. In the week preceding their interviews, five KIS had contact with less than 10 ecstasy users, five had contact with between 10 and 20 users, three had contact with between 21 and 50 users, and six had contact with more than 100 users. All stated that they obtained the information provided in the interview through their own contact with ecstasy users, and some also obtained information from their own observations (*n*=7), talking with their colleagues (*n*=6), and the media (*n*=1). All ecstasy KIS were either moderately (*n*=14) or very (*n*=5) certain of the information they provided.

3.0 RESULTS

3.1 Demographic characteristics of ecstasy users

3.1.1 Present sample

Just over two-thirds (69%) of this sample of 94 ecstasy users were male (Table 1). The mean age of the sample was 24.6 years (SD 6.4; range 16-48), and there was no difference in age between males (25 years) and females (24 years). The majority (78%) nominated their sexual identity as heterosexual, although gay males (9%), bisexuals (9%; four males and four females) and lesbian women (3%) were also represented. The majority (95%) of this sample spoke English as their main language at home. A minority (6%) was of indigenous Australian descent. They resided in a wide range of metropolitan regions of Sydney, including the eastern suburbs (24%), the northern suburbs (24%), the inner west (19%), the inner city (18%), the southern suburbs (12%) and the west and south west (3%).

Table 1: Demographic characteristics of the 94 ecstasy users in the study

Variable	Present sample (*n*=94)
Mean age (years)	25
% male	69
% English speaking background	95
% ATSI	6
% heterosexual	78
Mean number school years	12
% tertiary qualifications	55
% employed full-time	33
% full-time students	12
% unemployed	21
% previous conviction	6

The mean number of school years completed by the sample was 12.4 (SD 0.9; range 10-13). More than half (55%) had completed courses after school, with 26% possessing a trade or technical qualification, and 30% having completed a university degree or college course. One third (33%) were presently employed full-time, and a slightly smaller proportion (30%) was employed on a part-time or casual basis. One fifth (21%) were presently unemployed, 12% were full-time students, and 4% were active sex industry workers. None were currently in treatment for a drug problem, and only a minority (6%) had a previous criminal conviction for which they had served a custodial sentence (see Table 1).

3.1.2 KIS' reports

KIS' descriptions of the ecstasy users with whom they had recent contact were broadly consistent with the characteristics of the present sample of ecstasy users. All KIS described groups of ecstasy users which comprised at least 50% males, with an average of 64% males (range 50%-100%). The KIS who spoke of groups with high proportions (80%+) of males were those who worked with organisations such as the AIDS Council of NSW (ACON) and the Australian Federation of AIDS Organisations (AFAO). There was wide geographical variation in the areas of Sydney in which the users resided, and some KIS pointed out that some users who frequent Sydney nightclubs and parties come from the NSW Central or South Coasts for the weekend to do so. Estimated age ranges were from 15-56 years, with an estimated mean age of 24 years. Five of the nineteen KIS spoke exclusively of groups of ecstasy users aged 25 years or below, although almost all agreed that the majority of ecstasy users are aged in their 20s.

It is noteworthy that many of the KIS worked in nightclubs or promoting parties that occur in nightclubs, such that the majority of the users with whom they had contact were at least 18 years of age. Moreover, the ethical constraints placed on the survey of ecstasy users by the University's Research Ethics Committee prohibited the recruitment of users under the age of 16 years, and thus, the youngest subject in the user interview component of the study was 16. However, this does not mean younger people do not use ecstasy. Indeed, one of the comments most frequently made by subjects during the user interview component was that users are getting younger and that the age of initiation into ecstasy use is dropping (see Section 3.9). Although some spoke of 12 and 13 year olds using, most subjects stated that 14 and 15 year olds were the youngest users with which they had had personal contact.

Five KIS stated that they had recent contact with ecstasy users of Aboriginal or Torres Strait Islander descent, and all reported that the proportions were small (<5%). The estimated proportions of ecstasy users from a non-English speaking background ranged from 0%-60%, with an average of 17%. Persons of Indochinese, Mediterranean and Middle Eastern backgrounds were mentioned by some KIS as being well represented in the groups they described, although others commented that the range of cultural backgrounds was extremely broad, reflective of the general population, and difficult to narrow down to certain groups.

Generally, KIS considered the ecstasy users with whom they had recent contact to be a relatively highly functioning, well-educated group, with high rates of employment or engagement in studies, and low levels of criminal activity. These impressions are borne out by the demographic data collected from the interviews with 94 current ecstasy users.

3.1.3 Comparison with 1997 sample

Table 2 presents key demographic data for both the present sample of ecstasy users (*n*=94) and the 173 ecstasy users drawn from an earlier study conducted by NDARC in 1997. Subjects in the present sample were, on average, three years older than subjects in the 1997 sample, and were more likely to be male. In both samples, the majority of subjects was from English speaking backgrounds and identified as heterosexual. Only small proportions of each sample were of Aboriginal or Torres Strait Islander descent or had a previous conviction.

Table 2: Comparison of demographic data between ecstasy users recruited in Sydney in 2000 and in 1997.

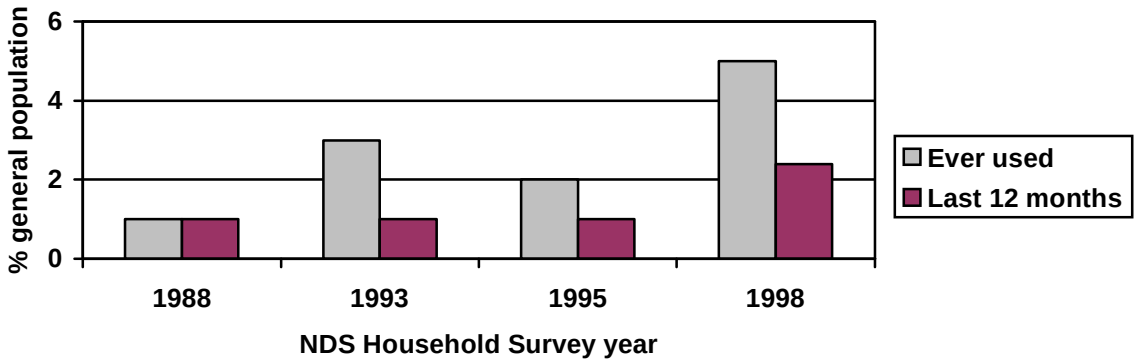
Variable	**Present sample (*n*=94)**	**1997 sample (*n*=173)**
Mean age (years)	25	22
% male	69	47
% English speaking background	95	90
% ATSI	6	2
% heterosexual	78	83
Mean number school years	12	12
% tertiary qualifications	55	40
% employed full-time	33	33
% full-time students	12	36
% unemployed	21	17
% previous conviction	6	3

The two samples had equivalent levels of school education and contained equivalent proportions of subjects who were unemployed and employed on a full-time basis. The earlier sample contained a higher proportion of full-time students (36% versus 12%), whereas the present sample contained a higher proportion of subjects who had completed tertiary or trade qualifications (55% versus 40%). These differences may relate in part to the age difference between the two samples; as the present sample were older they were perhaps more likely to have completed their tertiary qualifications than the younger sample recruited in 1997, who were more likely to be engaged in full-time study.

3.1.4 National Drug Strategy Household Surveys

Ecstasy was first included in the National Drug Strategy (NDS) Household Survey in 1988. The lifetime prevalence of ecstasy use among the general population increased from 1988 to 1993, declined slightly in 1995, and increased to 4.8% in the latest (1998) survey (Figure 1). In the 1998 survey, more than double the proportion of respondents reported ecstasy use in the preceding twelve months compared to the previous three surveys, in which recent use had remained stable at about 1% (Figure 1).

Figure 1: Prevalence of ecstasy use in Australia, 1988-1998



Prevalence of ecstasy use varies slightly according to gender, although differences are modest compared to other drugs. In the 1998 NDS Survey, 1.6% of females and 3.3% of males reported ecstasy use (Higgins, Cooper-Stanbury & Williams, 2000). This is consistent with data from previous surveys; for example, in 1995, males reported a higher lifetime (3% versus 2%) and annual (2% versus 1%) prevalence than females (Commonwealth Department of Health and Family Services, 1996).

In the 1998 Survey, both lifetime prevalence and recent ecstasy use were most common among those aged 20-29 years. Approximately 18% of males and 10% of females in this age bracket reported lifetime ecstasy use, and 12% of males and 5% of females reported having used ecstasy in the preceding 12 months (Darke, Ross, Hando, Hall & Degenhardt, 2000).

The availability of ecstasy has increased over the same time frame, as indicated by the proportion of the population who have been offered ecstasy. In 1998, 4% of the population had been offered ecstasy, compared to 7% in 1991 and 6% in 1993 (Makkai & McAllister, 1998). In 1995, the focus of this question changed from lifetime exposure to drugs to the preceding 12 months, and 3% of the sample reported recent exposure to ecstasy, compared to 5% of the 1998 sample (Darke *et al.*, 2000). Of particular concern is the high prevalence of exposure among young adults (14-29 years); in 1991 and 1993, 14% and 12%, respectively, of this age group reported exposure to ecstasy. In 1995, when the exposure question was changed to refer to the preceding 12 months, 8% of this age group reported exposure to ecstasy. In 1998 the proportion increased again; 10% of 14-19 year olds and 14% of 20-29 year olds reported having had the opportunity to use ecstasy.

3.1.5 Summary

- *although both males and females use ecstasy, use is most common among young males*
- *ecstasy users tend to be young, most being aged in their late teens or early 20s*
- *ecstasy users are relatively well-educated, with most having completed high school and a substantial proportion with tertiary qualifications*
- *a high proportion of ecstasy users are either employed or engaged in studies*
- *ecstasy users have little contact with the criminal justice system or with drug treatment agencies*
- *demographic characteristics of ecstasy users in Sydney have changed very little since 1997. However, since that time, prevalence of use has increased, such that now there is a larger group of people who have ever used ecstasy, as well as a larger group of people who have used it recently*

3.2 Ecstasy use

3.2.1 Patterns of ecstasy use of the present sample

The median age at which subjects in the present sample had first used ecstasy was 18 years (range 13-43) (Table 3), with a mean use duration of 4.8 years (SD 3.3; range 6 months to 15 years). There were no gender differences in age of initiation. All subjects had used ecstasy at least monthly at some time, at a median age of 20 years (range 14-48).

Subjects had used ecstasy on a median of 12 days in the preceding six months (range 6-117 days). Fifty one percent had used between monthly and fortnightly, 21% between fortnightly and weekly, and 28% had used ecstasy more than one day per week. More than half (53%) of the sample nominated ecstasy as their favourite or preferred drug. The next most preferred drug was cannabis, nominated by 23% of the sample, followed by amphetamine (6%), cocaine (4%) and LSD (4%).

The median number of ecstasy tablets taken in a 'typical' or 'average' use episode in the preceding six months was 1.5 (range 0.33-12). More than half (53%) of the sample reported that they typically used more than one tablet, and 7% typically used five or more tablets in a session. In their 'heaviest' use episode in the preceding six months, subjects used a median of 3 tablets (range 0.5-26); 36% had taken four or more tablets in a single episode.

Table 3: Patterns of ecstasy use of the 94 ecstasy users in the study

Variable	Present sample
Age first used ecstasy (years)	18
Median no. days used ecstasy last 6 months	12
% ecstasy 'favourite' drug	53
% use ecstasy weekly or more	34
Median no. ecstasy tablets in 'typical' session	1.5
% typically use >1 tablet	53
% recently binged on ecstasy (>48 hours)	44
% ever injected ecstasy	12
% mainly swallowed ecstasy last 6 months	89
% mainly snorted ecstasy last 6 months	6
% mainly injected ecstasy last 6 months	3
% injected any drug	28
Number drugs ever used	10
Number drugs used in last 6 months	7

Almost half (44%) of the sample had 'binged' on ecstasy in the preceding six months, defined as using the drug on a continuous basis for more than 48 hours without sleep (Ovendon & Loxley, 1996). The median length of the longest binge was 3 days (range 2-21 days). In more than one third of these cases, other drugs, primarily amphetamine, had also been used during the binge.

Although there were no gender differences in those who had binged on ecstasy in the preceding six months and those who had not, those who had binged were significantly younger than those who had not (22.7 versus 26.1 years; t_{86}=2.8; p<.01). There were also differences in drug use between those who had binged on ecstasy in the preceding six months and those who had not. Those who had binged had used ecstasy on a significantly greater number of days in the preceding six months (median 25 versus 12 days; U=431.5; p<.001), and used significantly more ecstasy in both typical (median 2 versus 1 tablet; U=463; p<.001) and heavy (median 6 versus 2 tablets; U=231; p<.001) use episodes. Those who had binged on ecstasy in the preceding six months also had a more extensive polydrug use history than those who had not; they had used significantly more drugs both ever (11.3 versus 9.6; t_{92}=-2.6; p<.05) and in the preceding six months (8.4 versus 6.2; t_{92}=-4.5; p<.01).

3.2.2 Routes of administration of the present sample

In the preceding six months, almost all (98%) of the present sample had swallowed ecstasy, 54% had snorted it, and 9% had smoked ecstasy. The smokers usually mixed ecstasy with cannabis in order to smoke it ('snow-cones'), but one subject had

'chased' the drug (i.e., smoked the vapours by crushing the tablet and heating it on foil, a relatively common route of administration for heroin in Sydney; Swift, Maher & Sunjic, 1999). Most subjects (89%) nominated oral ingestion as their main route of ecstasy administration in the preceding six months (Table 3), followed by snorting (6%), injecting (3%; *n*=3) and 'shelving' or anal administration (1%; *n*=1).

More than one quarter (28%) of the present sample had injected a drug (Table 3). The mean number of drugs ever injected by the whole sample was 2.6 (SD 2.1; range 0-7). A total of 12% of the sample had injected ecstasy at some time, and 7% had done so in the preceding six months. The mean age of first injection of ecstasy was 22.6 years (SD 4.6; range 18-32 years). Ecstasy was the first drug injected for only one subject, with most of the injectors having commenced injecting with either amphetamine (42%; *n*=11) or heroin (35%; *n*=9). Multiple logistic regressions indicated that the only variable independently associated with having injected ecstasy was having injected a wider range of drugs other then ecstasy (OR 2.7; CI 1.7-4.3).

To ensure that intravenous polydrug or primary opiate users were not oversampled and that this was primarily a sample of party drug users, a number of comparisons were drawn between those who had injected a drug at some time and those who had not. There were no differences between the two groups either in age or gender composition. There was no difference in the number of years of school completed between those who had injected a drug and those who had not, although those who had injected were significantly more like to currently be unemployed or working in the sex industry (46% of those who had injected versus 18% of those who had not; χ^2_1=8.0; *p*<.01), and were also more likely to have been imprisoned at some time (15% versus 3%; Fisher's exact *p*<.05).

There were a number of significant differences between the two groups in terms of drug use: injectors had used ecstasy on a greater number of days in the preceding six months (median 20 days versus 12; *U*=657.5; *p*<.05), and had used more ecstasy in their heaviest use episode (median 3 versus 2.75 tabs; *U*=615.0; *p*<.05). They had also used a wider range of other drugs, both ever (13 versus 9; t_{92}=-6.5; *p*<.01) and in the preceding six months (9 versus 6; t_{92}=-5.1; *p*<.01). In particular, those who had injected a drug were significantly more likely to have used heroin, both ever (69% versus 18%; χ^2_1=23.0; *p*<.01) and in the preceding six months (42% versus 7%; χ^2_1=16.3; *p*<.01).

Thus, a small proportion of past and current heroin users were included in this sample. Despite this, we can be confident that the great majority of this sample was primary party drug users and therefore the appropriate sentinel population to interview to meet the aims of the party drug component of the IDRS. Not a single subject had used methadone in the preceding six months, and none were currently in any form of drug treatment. Further, none nominated heroin as their favourite drug. Injectors were no more likely to have binged on ecstasy in the preceding six months, a variable which is later shown to be consistently related to indices of ecstasy-related harm. Further, there were no differences in any measures of ecstasy-related harm between those who had injected a drug and those who had

not. Thus, it is clear that the results pertaining to ecstasy-related harm cannot be accounted for by an oversampling of intravenous polydrug users.

3.2.3 KIS' reports

Consistent with the reports of users, KIS described a wide range of patterns of ecstasy use, but all agreed that the majority of ecstasy users administer the drug orally; only small minorities of users were considered to regularly snort or inject the drug. Those KIS for whom the majority of contact with ecstasy users was specifically with homosexual groups, also reported that small proportions of users administer the drug anally or vaginally (practices referred to by users as 'shafting' or 'shelving'). The majority of KIS considered that two tablets of ecstasy was an average quantity per 'typical' use episode, although estimates ranged from one to four tabs per episode. Estimates of frequency of ecstasy use ranged from five to six occasions per year to three nights per week, and many KIS commented that patterns of use were widely varied. These impressions were clearly reflected in the results of the user interviews.

3.2.4 Summary

- *on average, ecstasy users start using the drug in their late teens*
- *there are a wide range of patterns of ecstasy use, but, on average, regular users use the drug approximately once per fortnight*
- *heavy patterns of use of ecstasy very rarely exceed three days per week*
- *a substantial proportion of ecstasy users have recently used the drug on a continuous basis for 48 hours or more*
- *on average, ecstasy users use approximately 1.5 tablets per occasion of use*
- *a substantial proportion of ecstasy users have recently used four or more tablets in a single use episode*
- *the great majority of ecstasy users consume the drug orally, although small proportions regularly crush tablets to snort them.*
- *substantial proportions of those who could be considered primary 'party drug' users have injected a drug at some time. Although a significant minority of these have experimented with injecting ecstasy, very few users report that they usually inject ecstasy*

3.3 Other drug use

3.3.1 Polydrug use patterns of the present sample

Polydrug use was the norm among this sample, with a mean of 10 drugs (SD 3.2; range 3-18) having been tried, and a mean of 7 drugs (SD 2.6; range 2-15) having been used in the preceding six months (Table 4). Half (50%) of the sample had binged on one or more party drugs in the preceding six months, including amphetamine (32%), cocaine (12%), LSD (12%) and methamphetamine (9%).

Table 4: Patterns of drug use of the 94 ecstasy users in the study

Drug Class	Ever used (%)	Used last 6 months (%)	No. days used last 6 months (median; range) #
Ecstasy	100	100	12 (6-117)
Alcohol	100	95	50 (1-180)
Cannabis	99	90	119 (1-180)
Amphetamine	92	75	12 (1-180)
Tobacco	84	72	180 (2-180)
LSD	80	37	2 (1-74)
Cocaine	78	53	4 (1-90)
Amyl nitrate	66	29	4 (1-180)
Benzodiazepines	60	35	3 (1-180)
Nitrous oxide	54	22	3 (1-60)
Methamphetamine⊗	36	22	4 (1-48)
MDA	36	16	2 (1-12)
Heroin	32	17	2 (1-96)
Antidepressants	31	14	30 (2-180)
Ketamine	25	14	2 (1-30)
Other opiates	22	6	1 (1-6)
Other drugs *	14	9	3 (1-14)
Ice or shabu ⊗	12	6	1 (1-20)
Methadone	6	0	0
GHB	5	1	1 (1 subject on 1 day)

Among those who had used ⊗ See Section 4.1.3 regarding methamphetamine and ice/shabu
***** Other drugs included anabolic steroids and hallucinogenic mushrooms

Most subjects typically (defined as on two-thirds or more occasions of ecstasy use in the preceding six months) used other drugs in combination with ecstasy (84%) and in the 'come down' (i.e., acute recovery period) following ecstasy use (82%). A mean of 2.1 other drugs were typically used in conjunction with ecstasy (SD 1.4; range 0-5), most frequently tobacco (63%), alcohol (52%), cannabis (50%) and amphetamine (31%). Smaller proportions reported typically using cocaine (5%), amyl nitrate (4%) and ketamine (2%) in conjunction with ecstasy. Of those who typically drank alcohol while using ecstasy, 61% usually consumed more than five standard drinks. A mean of 1.7 other drugs were typically used during the acute recovery period following ecstasy use (SD 1.2; range 0-5), most frequently cannabis (66%), tobacco (56%), alcohol (31%), amphetamine (6%) and benzodiazepines (4%).

Table 5 (see next page) displays quantity of use in the preceding six months of a range of other party drugs, both in 'typical' use episodes and heaviest use episodes, among those who reported using the various drugs during this time frame.

3.3.2 KIS' reports

Patterns of extensive polydrug use among ecstasy users were also described by KIS. All considered that substantial majorities (50-100%) of the ecstasy users with whom they had recent contact used amphetamine, often in conjunction with their ecstasy use, in order to heighten and prolong the effects. Eleven of the 19 reported that a minority (5-30%) of the amphetamine market is now specific to 'crystal meth' or 'ice', and that there had been marked increases in the availability and use of this form of amphetamine over the last six to 12 months. It was reported to be smoked in a glass pipe or injected.

All KIS reported cannabis use among significant proportions of ecstasy users (60-100%), for some users only while acutely intoxicated or recovering from ecstasy, but many KIS considered that substantial proportions of ecstasy users smoke cannabis daily. KIS who worked with HIV+ people pointed out that cannabis may be used by this population to self-medicate HIV-related symptoms such as muscular atrophy, depression or chronic pain. Almost all KIS reported that most ecstasy users drink alcohol, although many commented that alcohol use patterns are widely varied, from complete abstinence through to regular bingeing. Further, half of the KIS specified that even among the drinkers, alcohol may not necessarily be consumed during acute ecstasy intoxication.

Fifteen of the 19 KIS considered that substantial minorities (5-50%) of ecstasy users snort cocaine powder, but this was generally considered to be a drug reserved for special occasions, mainly due to its cost and its short-lived effects. Only three KIS had recent contact with ecstasy users who also used LSD, but these were all described as minorities of the groups (<30%), and only one key informant considered that there is a group of dedicated users for whom LSD is the preferred drug. More KIS (*n*=7) specifically stated that LSD is now considered somewhat passé, and that ecstasy has taken over as the cheap and readily available psychoactive compound with which young people are most likely to experiment. Seven KIS considered that minorities (10-30%) of ecstasy users snort amyl nitrate, but six of these specifically

stated that amyl is less widely used on the dance floor now, and is more likely to be used by gay men during sex.

Table 5: Quantity of party drugs used in the preceding six months (among those who reported their use during this period)

Drug class (measure) [1]	'Typical' episode (median, range)	Heaviest episode (median, range)
Amphetamine (grams) [2]	0.5 (0.25 - 7)	1 (0.5 – 28)
Methamphetamine (points[3]) [4]	1 (1- 10)	1.5 (1 – 10)
Ice or shabu (points) [5] [6]	2 (1 – 3)	2 (1 – 3)
Cocaine (grams)	0.25 (0.1 – 7)	0.5 (0.1 – 26)
LSD (tabs)	1 (0.25 – 4)	1 (0.25 – 1)
MDA (capsules) [7]	1 (1 – 2)	1 (1 – 2)
Amyl nitrate (snorts)	3 (1 – 25)	6 (1 – 100)
Nitrous oxide (bulbs[8])	5 (1 – 80)	5 (1 – 120)
Ketamine (bumps[9])	5 (2 – 20)	5 (2 – 50)
GHB (bumps) [refers to 1 subject's single use]	1 bump	1 bump

Table legend:

1 The measure most frequently mentioned by subjects who had used the drug in the preceding six months is reported. Data for subjects who reported some other measure is not included.

2 Of the 70 subjects who reported using amphetamine in the preceding six months, all but two reported their use quantities in powder. One reported use of dexamphetamine tablets, obtained from a friend prescribed dexamphetamine for a diagnosis of Attention Deficit Hyperactivity Disorder, and one reported use of capsules of amphetamine in Thailand during the preceding six months.

3 Although there is some confusion among subjects, it appears that one 'point' is equal to approximately 0.1 of one gram, such that ten 'points' is equal to one gram.

4 Of the 21 subjects who reported using methamphetamine during the preceding six months, 14 described their use quantities in points, while seven referred to grams or lines. The latter would be expected with a drug manifest in powder rather than crystal form.

5 Of the six subjects who reported using ice or shabu in the preceding six months, three described their use quantities in points, whereas three referred to lines or grams.

6 See Section 4.1.3 regarding methamphetamine and ice/shabu

7 Of the 15 subjects who reported using MDA in the preceding six months, 10 reported that the drug came in capsules, three reported that it came in tablet form, and two reported that it came in powder.

8 A 'bulb' of nitrous oxide refers to the small canisters in which the gas is sold legally in supermarkets for insertion into an appliance used for whipping cream.

9 A 'bump' refers to a small amount of powder, typically measured on either the end of a key or a small spoon provided with the container in which the drug is usually purchased.

Thirteen of the 19 KIS reported that substantial proportions of the ecstasy users with whom they had recent contact used benzodiazepines (estimates ranged from 15-100%). The two KIS who considered that the great majority (90-100%) of ecstasy users also used benzodiazepines both worked with HIV+ populations and felt that there was some legitimate medical need for their benzodiazepine use. The others felt that some ecstasy users (15-60%) were able to obtain benzodiazepines illicitly or through doctor shopping and used them to medicate the aversive recovery period following stimulant use. Flunitrazepam was consistently reported to have remained the preferred benzodiazepine for this group, but all KIS agreed that it was less widely available than in the past and that temazepam is more widely available and hence more frequently used. Eight KIS also reported that small minorities (5-10%) of ecstasy users sometimes use heroin to medicate stimulant side-effects, most often by smoking but small proportions (5-20%) of those who use heroin were reported to inject the drug.

The use of ketamine among ecstasy users was mentioned by nine KIS, seven of whom worked with primarily homosexual populations. All nine agreed that although ketamine is more widely used now than in the past, its use is still primarily within the gay dance party scene and it is not yet widely used outside of this context. It was also generally agreed that the majority of those who use ketamine do so in an opportunistic fashion, but that there is a small group of dedicated users for whom ketamine is the preferred drug, used either alone or in combination with ecstasy.

Four KIS reported that the use of GHB was almost exclusively associated with the gay dance party scene. They all agreed that GHB is not the preferred drug of any party drug user, and that it is used infrequently and with some caution due to its unpredictable effects. This sentiment was reflected in the ecstasy user interview component: only one subject reported using GHB in the preceding six months, and many users spoke negatively of the drug when asked about it. However, despite this, 10% of the user sample stated that GHB is becoming more widely available and used, particularly in the gay dance party scene. The ACON workers suggested that the antipathy of many party drug users towards GHB may be due, in part, to a successful peer education program run within the gay dance scene about the risks associated with its use. A detailed study of GHB use in Sydney is currently being undertaken by NDARC, with financial support provided by ACON.

3.3.3 Comparison with 1997 sample

Table 6 presents key drug use data for the two samples. The similarities between the two samples are noteworthy, in terms of ecstasy use specifically, as well as general patterns of polydrug use (e.g., number of drugs ever used and recently used).

However, the comparison data also suggest that there have been some changes since 1997 in patterns of use of specific drugs. In particular, the data in Table 6 suggest that the use by this population of LSD, MDA, opiates other than heroin, and inhalants such as amyl nitrate and nitrous oxide, have all declined substantially since 1997, both in terms of proportions reporting lifetime and recent use, as well as frequency of recent use.

Table 6: Drug use data for ecstasy users recruited in Sydney in 2000 and in 1997.

Variable	Present sample (*n*=94)	1997 sample (*n*=173)
Age first used ecstasy (years)	18	17
Days used ecstasy last 6 months	12	12
% ecstasy 'favourite' drug	53	55
% use ecstasy weekly or more	34	27
Median no. ecstasy tablets in 'typical' session	1.5	1.5
% typically use >1 tablet	53	56
% recently binged on ecstasy (>48 hours)	44	42
% injected ecstasy	12	14
% injected any drug	28	31
Number drugs ever used	10	10
Number drugs used last 6 months	7	7
LSD		
% ever used	80	97
% used last 6 months	37	72
days used last 6 months	2	5
MDA		
% ever used	36	60
% used last 6 months	16	41
Opiates other than heroin		
% ever used	22	37
% used last 6 months	6	27
days used last 6 months	1	4
Amyl nitrate		
% ever used	66	84
% used last 6 months	29	56
Nitrous oxide		
% ever used	54	69
% used last 6 months	22	41
Ketamine		
% ever used	25	16
% used last 6 months	14	6
days used last 6 months	5	2
Anti-depressants		
% ever used	31	22
% used last 6 months	14	10
days used last 6 months	30	13
Amphetamine (any form)		
% ever used	92	97
% used last 6 months	77	91

KIS' reports helped to validate and contextualise many of these comparative data. Seven KIS reported a recent decrease in the availability and use of LSD, all of whom agreed that ecstasy has taken the place that LSD used to occupy in the illicit drug market. Six KIS reported that amyl nitrate is now more likely to be used by gay men for sex than on the dance floor. Three KIS reported that nitrous oxide is harder to obtain since two major supermarket chains voluntarily removed nitrous oxide canisters from their shelves to sell them from behind the counter.

Compared to the 1997 data, higher proportions of the present sample reported lifetime and recent use of ketamine and anti-depressants, and KI reports of an increase in the availability and use of ketamine in recent years support these data. Frequency of recent anti-depressant use has also increased substantially since 1997 (median 30 days versus 13 days), suggesting that a higher proportion of this population may be accessing these drugs on prescription than has been the case in the past.

It is noteworthy that, despite the significant increase in the availability and use of cocaine in Sydney since 1998 (McKetin *et al*., 2000), there was little difference between the 1997 and the present sample in terms of proportions who had ever used cocaine (72% versus 78%) or who had recently used it (50% versus 53%). There was also no difference between the two samples in frequency of recent cocaine use (2 versus 4 days in the last six months). This suggests that the major portion of the increase in cocaine use in Sydney in recent years may be accounted for by its increased use among injecting drug users, and heroin users in particular (McKetin *et al*., 2000).

Compared to 1997, a substantially smaller proportion of the present sample reported recent use of any form of amphetamine (91% versus 75%), a pattern of results which was not mirrored in the proportions of the two samples who reported having ever used amphetamine, which were roughly equivalent. The reasons for this decrease in the proportion reporting recent amphetamine use are unclear.

In terms of other drug use in conjunction with ecstasy use, some differences were noted between the two samples. Compared to the 1997 sample, a higher proportion of the present sample reported typically drinking alcohol while using ecstasy (52% versus 41%). Further, in the present sample, 61% of those who typically used alcohol in conjunction with ecstasy, typically consumed more than 5 standard drinks. The corresponding figure for the 1997 sample was 45%. These data suggest that more people are consuming larger quantities of alcohol in conjunction with their ecstasy use. One key informant also reported that ecstasy users are more likely to drink alcohol in conjunction with their ecstasy use than has been the case in the past.

Consistent with this, a higher proportion of the present sample than the 1997 sample also reported typically drinking alcohol during the recovery period following ecstasy use (31% versus 19%). In contrast, a smaller proportion of the present sample reported typically using amphetamine concurrently with ecstasy (31% versus 45%), and fewer reported that they typically used benzodiazepines when recovering from ecstasy use (4% versus 12%).

3.3.4 Summary

- *patterns of ecstasy use have changed little since 1997*
- *ecstasy users tend to be polydrug users who have tried and have recently used a wide range of drugs*
- *substantial proportions of ecstasy users have recently used alcohol, tobacco, cannabis, amphetamine, cocaine, inhalants and benzodiazepines*
- *concurrent polydrug use (i.e,, the use of other drugs concurrently with ecstasy) is the norm among ecstasy users*
- *the majority of ecstasy users also use other drugs to help ease the 'come down' (recovery period following acute ecstasy intoxication)*
- *although patterns of use of some specific drugs among party drug users have changed since 1997, in general, it also seems to be the case that as the popularity of a specific drug wanes, the popularity of another evolves to fill the niche the first previously occupied in the market*

3.4 Price, purity and availability of party drugs in Sydney

3.4.1 Ecstasy

3.4.1.1 Price

The majority (95%) of the sample of users was able to comment on the price, purity and availability of ecstasy in Sydney (see Table 7 next page). All agreed that virtually all ecstasy available in Sydney in the six months preceding the interview came in tablet form. In line with these reports, all KIS stated that the great majority (95%+) of ecstasy currently available in Sydney comes in the form of tabs, and that forms of ecstasy other than tabs (such as caps, powder or liquid) currently constitute a small minority of the ecstasy market in Sydney.

The mean price of ecstasy was reported by users to be AUD$40 per tablet (SD 7.5; range 15-60). Most subjects (91%) reported that the price had either remained stable or decreased in the preceding six months (Table 7). KIS' reports on the price of ecstasy were closely in line with those of the users. Seventeen of the 19 KIS commented on the price of ecstasy, eight of whom agreed that $40 per tab was the standard price, four of whom reported $50, and one who stated that $45 was the standard price per tab.

The prices cited by KIS ranged from $30 to $60; many KIS reported a price range and pointed out that the price varied depending on a number of factors. Ecstasy is cheaper when bought in bulk and/or from a known supplier ($30-$40, or even

cheaper when larger quantities are purchased), but more expensive when purchased within an entertainment venue such as a dance party or nightclub ($50-$60). Users are willing to pay up to $10 more for a tablet they believe to be imported rather than manufactured locally.

Eighteen of the 19 KIS commented on recent changes in price, all of whom agreed that the price had either decreased (*n*=11) or remained stable (*n*=7).

Table 7: Price, purity and availability of ecstasy in Sydney, 2000

Price (AUD$)	
Mean price (per tab)	$40 (SD 7.5; range 15-60)
Mean lowest price	$30 (SD 7.1; range 15-50)
Mean highest price	$50 (SD 7.4; range 25-60)
Price changes (% sample)	
Increasing	3
Stable	53
Decreasing	38
Fluctuating	5
Purity (% sample)	
High	25
Medium	27
Low	16
Fluctuates	32
Don't know	1
Purity changes (% sample)	
Increasing	24
Stable	15
Decreasing	18
Fluctuating	43
Availability (% sample) **('How easy is it to get ecstasy?')**	
Very easy	70
Easy	22
Moderately easy	5
Difficult	1
Very difficult	1
Availability changes (% sample)	
More difficult	7
Stable	69
Easier	21
Fluctuates	2

3.4.1.2 Availability

There was a high degree of consistency between users' and KIS' reports of the availability of ecstasy. Table 7 indicates that that the majority of users (92%) considered that ecstasy was either very easy or easy to obtain, and a similar proportion (90%) reported that the availability had either remained stable or increased in the preceding six months. Eighteen of the 19 ecstasy KIS commented on the availability of ecstasy, all of whom considered ecstasy 'very easy' (*n*=17) or 'easy' (*n*=1) to obtain. Of these 18 KIS, 16 reported that the availability of ecstasy had remained stable in the preceding six months. The other two reported that ecstasy was 'easier' to get (*n*=1) than in the past, or that the availability fluctuated (*n*=1).

3.4.1.3 Sources and purchase locations

The majority of subjects reported that in the six months preceding the interview they had obtained ecstasy from friends or partners (83%) or dealers (63%). Other people from whom ecstasy had recently been obtained included acquaintances (reported by 30% of the sample); people unknown to subjects (usually dealers selling tablets in venues; 27%); and work colleagues (12%). Ecstasy was most often obtained at friends' homes (reported by 59% of the sample) and subjects' homes (45%). A high proportion of the latter reflects increasing numbers of dealers in Sydney willing to 'home deliver' ecstasy (and many other drugs). Other common purchase locations included nightclubs (37%); dealers' homes (35%); dance parties (20%); raves (17%); and pubs (14%). Twenty percent of the sample reported that they had obtained ecstasy at some other venue, the majority of which reflects an increase in 'mobile dealing' of ecstasy. A dealer is called on his/her mobile telephone and a public meeting place, such as on a designated corner or close to a venue, is arranged.

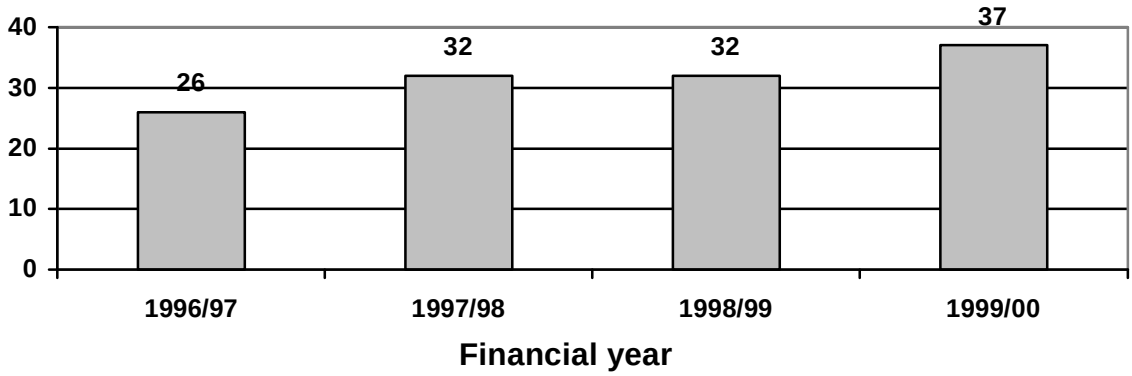
A variety of methods of paying for ecstasy in the preceding six months were reported, most frequently paid employment (83% of the sample); being given ecstasy by friends or partner (72%); borrowing money from friends (45%); on credit from dealers (36%); and selling or distributing drugs (35%). Other methods of paying for ecstasy included obtaining money from parents (28%); unemployment or sickness benefits (28%); bartering other drugs or goods for ecstasy (21%); pawning goods (12%); government study allowances (11%); property crime (4%); sex work (4%); and fraud (3%).

Three KIS commented on high level ecstasy distribution activities. Two of these reported that ethnic minorities control the distribution of ecstasy in NSW, both of whom nominated persons of Middle-eastern and Mediterranean descent as heavily involved, while one believed that Asians and Pacific Islanders are also major players in the ecstasy market. The third key informant who commented on distribution activities reported that bikers have become involved in the manufacture and distribution of tablets which are marketed as ecstasy, being well-placed to make use of their traditional amphetamine manufacture and distribution strategies.

3.4.1.4 Purity

Table 7 indicates that there was little consistency between users' estimates of the current purity of ecstasy, nor in reports of changes in purity in the preceding six months. This inconsistency was also reflected in the reports of KIS, which did not vary in any systematic fashion. Estimates of purity are necessarily subjective and depend, among other factors, on users' tolerance levels. Laboratory analysis of seizures of ecstasy provide objective evidence regarding purity changes, and are therefore more highly regarded than the reports of users.

Figure 2: Purity of NSW ecstasy seizures, 1996/97-1999/2000



Data provided by the Australian Bureau of Criminal Intelligence indicated that the average purity of seizures of ecstasy made in NSW during the 1999/00 financial year was 37% (range 3-93%; *n*=136 seizures). This was little different to the national average in 1999/00 of 35%, and slightly higher than the average purity in NSW in recent years. Figure 2 indicates that the purity of NSW seizures of ecstasy has steadily increased since the mid-1990s.

The majority of AFP seizures occur at import level, and typically at larger volumes than those made by state police, so it might be expected that AFP seizures would be of higher purity. The fact that there is little difference in the purity of the two sorts of seizures suggests that little cutting and re-pressing of imported ecstasy tablets occurs as they filter down the distribution chain in NSW.

However, the figures do not necessarily contradict the common perception of both users and KIS that imported ecstasy tablets are inevitably of higher quality, and the subsequent willingness of users to pay more for imported than locally manufactured tablets. NSW police seizures of tablets are classified as 'ecstasy' only when the laboratory analysis indicates that they contain MDMA, the drug to which the term 'ecstasy' originally referred. However, the majority of tablets sold as 'ecstasy' in Sydney today are locally manufactured, and the great majority of these do not contain MDMA at all, but rather, other substances, such as methamphetamine, ketamine, and ephedrine. The purity data excludes such tablets from the class of 'ecstasy' because the classifications are based on the contents of the tablets rather than what they were sold as.

Thus, the common user perception that imported tablets are of higher quality is probably correct. MDMA remains the sought-after drug of ecstasy users in Sydney, but they are cognizant of the fact that they are rarely able to purchase it. This knowledge is reflected in the fact that users in 2000 were more likely to use the term 'pills' than the term 'ecstasy' when referring to the drug, whereas this was not the case in 1997. The market for ecstasy in 2000 was dominated by locally manufactured tablets, and few local laboratories have the capacity to produce MDMA due to difficulties in obtaining the necessary precursor chemicals (ABCI, 2000). Almost all tablets containing MDMA that appear on the streets of Sydney are imported, and they command a higher price than tablets which are not imported and which are therefore highly unlikely to contain MDMA.

3.4.2 Comparison with 1997 sample

The average price of a tablet of ecstasy has decreased $10 since the 1997 study (Table 8). In both 1997 and 2000, almost all subjects described ecstasy as 'easy' or 'very easy' to obtain, and they also agreed that availability had either remained stable or increased. The results regarding subjects' perceptions of the purity of ecstasy are not directly comparable between the present study and the earlier one due to a difference in possible response options. However, clearly the purity data obtained from analysis of seizures of ecstasy provides valid information on this issue.

Table 8: Price and availability of ecstasy in Sydney in 2000 and in 1997

Variable	**Present sample (*n*=94)**	**1997 sample (*n*=173)**
Mean price per tab	$40 (range $30-$50)	$50 (range $40-$60)
% sample reported price stable	53	62
% sample reported price decreased	38	29
% sample reported 'very easy' to obtain	70	67
% sample reported 'easy' to obtain	27	31
% sample availability stable	69	67
% sample availability increased	21	25
% sample score from friends	83	90
% sample score from work colleagues	12	8
% sample score from dealers	63	34
% sample score from acquaintances	30	12
% sample score from unknown people	27	6
% score at own home	45	35
% score at dealer's home	35	23
% score on the street	20	12

In the present and the 1997 samples, similar proportions of subjects reported that they normally obtained ecstasy from friends and from work colleagues (Table 8). However, greater proportions of subjects in the present sample reported that they normally obtained ecstasy through dealers, acquaintances, or persons unknown to them. Further, it was more common for subjects in the present sample to report that they obtained ecstasy at their own homes, at a dealer's home, and on the street. These changes may reflect a change in the structure of the ecstasy market wherein more people now sell the drug such that there are now more options as to where and from whom it can be obtained. They also reflect the increase in the number of dealers who are willing to make 'home deliveries' (a trend with all drugs), as well as an increase in the number of dealers who operate through a mobile phone, meeting customers in a designated meeting spot to exchange drugs and money.

3.4.3 Summary

- *the current price of ecstasy in Sydney is $40 per tablet*
- *the price of ecstasy has dropped $10 per tablet since 1997*
- *the current purity of those tablets which contain MDMA and are therefore most likely to have been imported is 37%*
- *the purity of tablets containing MDMA has steadily increased since 1997*
- *the proportion of 'ecstasy' tablets which are manufactured locally and are unlikely to contain MDMA at all has increased since 1997*
- *almost all ecstasy users report that it is 'easy' or 'very easy' to obtain*
- *the availability of ecstasy has remained stable since 1997*
- *the number of options of people from whom to purchase ecstasy and places in which to purchase it appear to have increased since 1997*

3.4.4 Other party drugs

Much smaller proportions of the sample were able to comment on the price, purity and availability of other party drugs in Sydney, and accordingly, these data should be interpreted cautiously. Indeed, the sheer paucity of data relating to these drugs suggests there was relatively limited recent exposure to them among this sample, and that they are not as widely available or as widely used as ecstasy.

Table 9 present the limited results available on the price of LSD, commented on by 16 subjects; methamphetamine, commented on by 9 subjects; MDA, commented on by 8 subjects; and ketamine, commented on by 3 subjects. The results relating to purity and availability of these drugs are not presented due to the small numbers of subjects reporting them. It is noteworthy that no subjects felt that they knew enough about GHB to comment on its price. Where relevant, also included are comparative data from the 1997 study of ecstasy users conducted in Sydney.

Table 9: Price of other party drugs in Sydney in 2000 and in 1997

Drug	Present sample	1997 sample
LSD	**(*n*=16)**	**(*n*=68)**
Median price (per tab)	$10 (range 3-25)	$15 (range 2-25)
Median lowest price	$10 (range 1-15)	$10 (range 2-25)
Median highest price	$20 (range 10-25)	$25 (range 10-30)
Methamphetamine	**(*n*=9)**	
Median price (per 'point')	$50 (range 50-80)	Data not collected in 1997
Median lowest price	$50 (range 30-120)	
Median highest price	$70 (range 50-140)	
MDA	**(*n*=8)**	**(*n*=32)**
Median price (per cap)	$50 (range 40-60)	$50 (range 30-60)
Median lowest price	$40 (range 35-50)	$40 (range 25-60)
Median highest price	$55 (range 40-60)	$50 (range 35-70)
Ketamine	**(*n*=3)**	**(*n*=6)**
Median price (per gram)	$200 (no range)	$200 (range 200-220)
Median lowest price	$170 (range 140-200)	$200 (range 100-200)
Median highest price	$200 (no range)	$250 (range 200-250)

3.5 Physical and psychological side-effects of ecstasy

3.5.1 Present sample

Tables 10 (see page 34) and 11 (see page 35), respectively, display the physical and psychological side-effects attributed, at least in part, to ecstasy in the preceding six months, and their duration and perceived origins among those subjects who reported them.

Subjects reported a mean of 9 physical side-effects in the preceding six months (SD 3.9; range 1-17). The most common were loss of energy, muscular aches, trouble sleeping, blurred vision and profuse sweating (Table 10). A mean of 5 psychological symptoms were also reported (SD 2.7; range 0-12), most commonly mental confusion (disorientation, short-term memory loss and vagueness), irritability, depression, anxiety and blackouts/memory lapses (Table 11).

There were no differences in the number of physical or psychological side-effects reported based on gender, nor on whether subjects has injected ecstasy either recently or in the past, nor on whether subjects had injected any drug. However, those who had binged on ecstasy in the preceding six months reported significantly more physical (9.8 versus 7.7; t_{92}=-2.6; p<.05) and psychological (5.7 versus 3.9; t_{92}=-3.5; p<.01) side-effects which they perceived as related to ecstasy.

Multiple linear regressions were performed to determine the variables independently associated with the number of side-effects attributed to ecstasy. Predictor variables entered into the models included demographic variables, indicators of ecstasy, amphetamine and cocaine use, route of administration variables and extent of recent polydrug use.

The final regression model predicting number of physical side-effects indicated that being younger (β=-.30; p<0.01), number of drugs typically used when recovering from ecstasy (β=2.4; p<0.05), and the quantity of ecstasy typically used (β=2.5; p<0.05) were independently associated with more physical side-effects. This model was significant ($F_{3,89}$=10.3; p<0.01), accounting for 26% of variance in number of physical side-effects.

The final regression model predicting number of psychological side-effects indicated that recent bingeing on ecstasy (β=3.1; p<0.01) and extent of recent amphetamine use (β=2.4; p<0.05) were independently associated with more psychological side-effects. This model was significant ($F_{2,91}$=9.1; p<0.01), although it accounted for a relatively small proportion of the variance (17%) in number of psychological side-effects. The model suggests that other stimulant use influences psychological side-effects that subjects may attribute to ecstasy, which is not surprising given the extent of polydrug use within the sample. Subjects' perceptions of causality are at odds with this notion however; most subjects perceived their psychological side-effects as being caused by ecstasy use alone (see Table 11).

Table 10: Physical side effects of ecstasy (*n*=94)

SYMPTOM	Last 6 months (%) *	Median length of worst case #	Only related to ecstasy (%) #
Loss of energy	75	2 days	43
Muscular aches	70	2 days	30
Trouble sleeping	66	8 hours	63
Blurred vision	63	2 hours	83
Profuse sweating	62	2.5 hours	44
Tremors/shakes	54	3 hours	53
Hot / cold flushes	54	1 hour	61
Weight loss	52	7 days	39
Dizziness	49	10 mins	46
Numbness/tingling	47	1 hour	86
Stomach pains	45	2 hours	55
Heart palpitations	44	20 mins	50
Joint pains/stiffness	35	2 days	36
Headaches	33	6 hours	45
Inability to urinate	32	3 hours	80
Shortness of breath	31	17.5 mins	48
Teeth problems	30	3 days	50
Vomiting	29	3 mins	70
Chest pains	18	30 mins	53
Fainting/pass out	10	1 min	22
Fits/seizures	0	0	0

Table legend:

***** proportion of total sample

among those reporting the symptom

Table 11: Psychological side effects of ecstasy (*n*=94)

SYMPTOM	Last 6 months (%) *	Median length of worst case #	Only related to ecstasy (%) #
Confusion	67	1 day	56
Irritability	62	1 day	59
Depression	51	2 days	63
Anxiety	51	4 hours	67
Blackout/memory lapse	47	3 hours	62
Paranoia	42	3 hours	59
Visual hallucinations	34	2 hours	66
Anger/hostility	27	12 hours	52
Sound hallucinations	27	60 mins	68
Loss of sex urge	26	11 hours	75
Flashbacks	11	2.5 mins	70
Panic attacks	12	1 hour	82
Suicidal thoughts	9	36 hours	38
Violent behaviour	7	120 mins	29
Suicide attempts	0	-	0

Table legend:

***** proportion of total sample

among those reporting the symptom

The physical side-effects that were attributed solely to ecstasy use by half or more of those who reported them included: numbness or tingling, blurred vision, inability to urinate, vomiting, hot and cold flushes, trouble sleeping, stomach pains, tremors or shakes, chest pains, heart palpitations and teeth problems. Other physical symptoms were more often perceived as caused by ecstasy use combined with other factors, such as concurrent use of other drugs; lack of sleep; lack of food; sustained exertion; hot, crowded environments; or pre-existing conditions (Table 10).

All psychological side-effects were attributed solely to ecstasy use by more than half of those who reported them except for suicidal thoughts and violent behaviour, which were perceived by the majority of those who reported them as caused by a combination of factors (Table 11).

3.5.2 KIS' reports

Some KIS, due to the nature of their contact with ecstasy users, were able to comment on physical and psychological side-effects among this population. Four KIS, all with extensive contact with the nightclub industry, had perceived an increase in the number of people experiencing paranoia and even panic reactions in clubs, two of whom felt that this increase was specific to young people in particular. Two speculated that this could be due to the users' young age and a lack of information about the drug, while a third believed that changes in the chemical composition of the drug might account for such increases.

A fifth key informant reported an increase in those presenting to First Aid services in venues with psychotic reactions and, in a small number if cases, in florid psychosis. He had also perceived an increase in the number of people presenting to First Aid services in respiratory distress, and in the severity of that distress, increases which he considered due to polydrug use. Four KIS commented that any increases in presentations to First Aid services may reflect, at least in part, a greater awareness of and willingness to report drug-related problems, as well as increased trust of the services due to better marketing and word of mouth among users. Indeed, one reported that users expect the presence of First Aid at venues now, whereas in the past it was not considered mandatory.

Five KIS perceived that ecstasy users had recently reported an increase in the incidence and severity of the depression experienced during the recovery period following acute intoxication. Two felt that the apparent increase in incidence may simply be due to an increased awareness of and willingness to report such problems, whereas a third perceived that impurities and changes in the chemical composition of tablets sold as ecstasy may account for the increase.

Two KIS reported that recently they had witnessed more partygoers experiencing problems related to the use of GHB, one of whom worked primarily in gay and lesbian venues, and one of whom worked with a younger, heterosexual clientele. Both emphasised that they were referring to small numbers.

3.5.3 Summary

- *most ecstasy users report a range of physical and psychological symptoms which they perceive as being related, at least in part, to their use of the drug*
- *many of these symptoms are perceived as relatively minor, although the symptoms are aversive enough that most users choose to self-medicate them with other drugs such as cannabis or benzodiazepines*
- *some users report physical side-effects which are known to be associated with ecstasy-related deaths, including the inability to urinate and passing out*
- *some users report psychological side-effects which cause significant clinical distress, such as panic attacks, suicidal thoughts and violent behaviour*

3.6 Other ecstasy-related problems

3.6.1 Present sample

More than one-half (59%) of the sample had experienced occupational or study problems in the preceding six months (Table 12) which they perceived as related, at least in part, to their use of ecstasy. Half (49%) of these problems involved trouble concentrating, reduced work performance or feeling unmotivated. Almost half (46%) involved taking sick leave or not attending classes, while a minority (6%) were serious problems such as being dismissed from or quitting a job, or inability to obtain employment.

Table 12: Other ecstasy-related problems in the preceding six months (*n*=94)

Ecstasy-related problem	% sample
Occupational/study problems	59
Relationship/social problems	49
Financial problems	27
Legal/police problems	6

Half (49%) of the sample reported ecstasy-related relationship or social problems in the preceding six months, 65% of which were relatively minor, such as arguments, mistrust or anxiety. Minorities of those who had relationship problems reported more serious issues such as ending a relationship (20%), violence (4%) or being forced to leave home (2%).

Financial problems related to ecstasy use were also relatively common (27%). One quarter (24%) of these were relatively minor, such as having no money for other recreational activities, although 56% reported being in debt, and 20% had been unable to pay for essentials such as food or rent. Only a small minority (6%, *n*=6) of the sample had recent legal problems related to ecstasy. Of these, three subjects had been arrested, one had been cautioned, and two perceived that they were under surveillance by police.

There were no gender differences in likelihood of subjects reporting various ecstasy-related problems in the preceding six months. Subjects who had ever injected any drug, those who had ever injected ecstasy and those who had injected ecstasy recently, were no more likely to report ecstasy-related problems than those who had not.

However, those who had binged on ecstasy in the preceding six months were significantly more likely to report relationship (63% of those who had binged versus 38% of those who had not; χ^2_1=6.1; p<.05), financial (37% of those who had binged versus 19% of those who had not; χ^2_1=3.7; p=.05) and occupational (73% of those who had binged versus 47% of those who had not; χ^2_1=6.4; p<.05) problems which they perceived as being related to their ecstasy use.

An index of total ecstasy-related problems was calculated by adding together the number of different problems reported (occupational, relationship, financial and legal). The mean number of problems experienced was 1.4 (SD 1.1; range 0-3). Multiple linear regressions indicated that having used ecstasy for a fewer number of years (β=-3.5; p<0.01), quantity of ecstasy consumed in heaviest use episode (β=3.3; p<0.01) and extent of recent polydrug use (β=3.2; p<0.01) were independently associated with extent of ecstasy-related problems. This model was significant ($F_{3,90}$=12.6; p<0.01), accounting for 30% of the variance. The model suggests that users may become better able to minimise ecstasy-related harm as they accumulate experience with the drug.

3.6.2 Comparison with 1997 sample

In terms of ecstasy-related side-effects, the two samples were relatively similar (Table 13). Compared to the 1997 sample, the present sample reported similar numbers of physical and psychological symptoms that they perceived as being related, at least in part, to their ecstasy use. Similar proportions of the two samples also reported work or study and relationship or social problems that they related to their use of ecstasy.

Table 13: Ecstasy-related problems among ecstasy users recruited in 2000 and in 1997

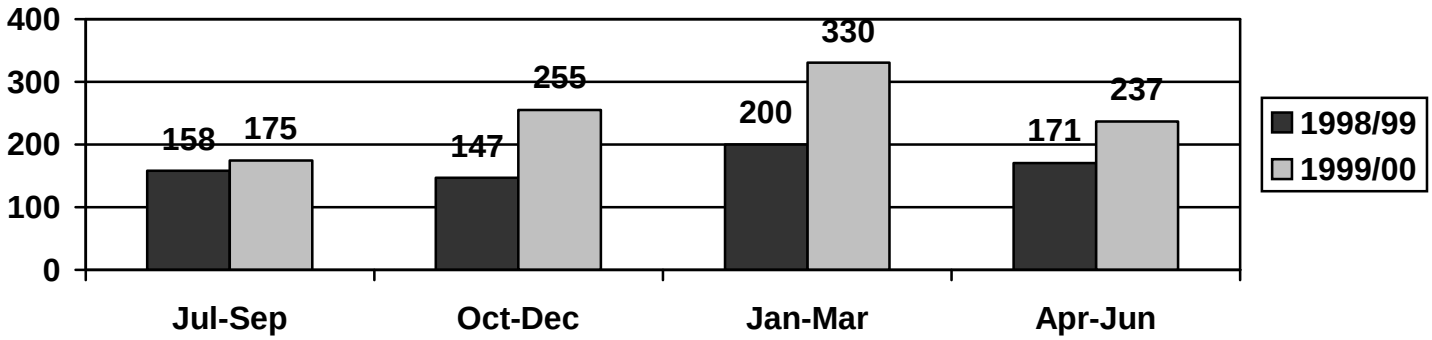
Ecstasy-related problem	Present sample (*n*=94)	1997 sample (*n*=173)
Mean no. physical side-effects	9	10
Mean no. psychological side-effects	5	4
Occupational/study problems (%)	59	53
Relationship/social problems (%)	49	52
Financial problems (%)	27	54
Legal/police problems (%)	6	4

Compared to the 1997 data, a substantially smaller proportion of the present sample reported financial problems that they related to their use of ecstasy. The reasons for this difference are not clear. The data collected do not allow the teasing out of the reasons for this difference, but it is interesting to note that there are also differences between the two groups in terms of crime (see Section 3.7.2).

3.6.3 Alcohol and Drug Information Service data

The NSW Alcohol and Drug Information Service (ADIS) received 44,744 telephone inquiries during the 1999/00 financial year, compared to 48,842 in 1998/99. However, despite this decrease in the overall number of phone calls, the number of calls that related *mainly* to ecstasy over the two financial years increased from 452 in 1998/99 to 675 in 1999/00, and the number of callers who made *any* inquiries about ecstasy increased from 676 in 1998/99 to 997 in 1999/00. This represents a 62%

Figure 3: Number of ADIS inquiries relating to ecstasy, 1998/99 - 1999/00



increase between 1998/99 and 1999/00 in the number of calls relating mainly to ecstasy received by ADIS, and follows the 49% increase noted from 1997/98 to 1998/99 (McKetin, Darke & Kaye, 2000).

Figure 3 compares ADIS data relating to ecstasy by quarter across the 1998/99 and 1999/00 financial years, and shows an increase in the comparative number of calls received in each of the four quarters. The data also indicate that inquiries about ecstasy peak in the first quarter of the calendar year, when, presumably, more people are using the drug due to the prominence of the Christmas and New Year party season.

3.6.4 Summary

- *significant proportions of ecstasy users report occupational, relationship and financial problems that they perceive as being related, at least in part, to their use of the drug*
- *many of these problems are relatively minor, but some constitute significant disruptions to functioning, including loss of employment, the ending of relationships, and the inability to pay for essentials such as food or rent*
- *financial problems related to ecstasy use were reported significantly less frequently in 2000 than in 1997. The reasons for this difference are not clear.*

3.7 Criminal activity

3.7.1 Present sample

Almost half (49%) of this sample had committed at least one crime in the month preceding the interview (Table 14). Drug dealing was the criminal activity subjects were most likely to have engaged in recently, with 40% of the sample having sold drugs at least once in the month preceding the interview. Eighteen percent of the sample had sold drugs less than once a week in the preceding month, 7% had sold drugs once a week, 12% had sold drugs between weekly and daily, and 3% (*n*=3) had sold drugs daily during the preceding month.

Seven of the 19 KIS had perceived an increase in the number of user/dealers, and in particular of younger user/dealers, selling ecstasy or 'running' for bigger dealers to support their own use and the other costs associated with their party nights. One KI reported that occasionally at parties or nightclubs there are people selling ecstasy who do not use it themselves and are solely interested in making money, but generally it was considered that most people who sell ecstasy while at an entertainment venue do so to support their own use.

Table 14: Criminal activity among ecstasy users (*n*=94)

	% sample
Crime committed in preceding month	
Property crime	12
Drug dealing	40
Fraud	3
Violent crime	3
Any crime	49
Arrested in last 12 months	14

Twelve percent (*n*=11) of the sample of users had committed a property crime in the preceding month, three quarters of whom (*n*=8) had done so less than once per week, with the remainder committing property crime about once a week. Three subjects had committed violent crime in the preceding month, two of whom had done so once, whereas the third committed violent crime regularly.

Three subjects reported that they had committed fraud in the preceding month, all of whom said they had done so less than once per week. One key informant, who worked with HIV+ people, reported that there had been a recent increase in the sophistication and organisation of 'doctor shopping' among his clients. They were now able to access a network of fake identifications and Medicare cards for this purpose, and more often 'shopped' for each other than has been the case in the past. He considered that these clients were driven to engage in such fraudulent activity through legitimate medical need.

Fourteen percent (*n*=13*)* of the sample had been arrested in the preceding 12 months. Just under half (46%; *n*=6) of this group had been arrested for illicit drug use or possession, 31% (*n*=4) had been arrested for violent crime, two people had been arrested for driving under the influence of alcohol, and one had been arrested for property crime. Only a minority (6%) of the sample had a previous criminal conviction for which they had served a custodial sentence.

3.7.2 Comparison with the 1997 sample

Compared to the 1997 sample, substantially smaller proportions of the present sample reported having engaged in the preceding month in any crime (Table 15). Specifically, there were lower rates of property crime and drug dealing among the 2000 sample compared to 1997. Incidence of fraud and violent crime in the preceding month were the same in both samples.

Table 15: Criminal activity among ecstasy users recruited in 2000 and in 1997

Criminal activity	**% present sample (*n*=94)**	**% 1997 sample (*n*=173)**
Any crime in last month	49	62
Drug dealing in last month	40	51
Property crime in last month	11	25
Fraud in last month	3	3
Violent crime in last month	2	2
Paid for ecstasy through dealing drugs	35	49
Paid for ecstasy through property crime	4	13

Table 15 also indicates that, compared to the 1997 sample, a substantially smaller proportion of the present sample reported that in the preceding six months they had paid for ecstasy through drug dealing or through property crime. Smaller proportions of the present sample also reported that in the preceding six months they had obtained ecstasy on credit from dealers (36% versus 47%), or paid for ecstasy through bartering drugs or goods (21% versus 36%) or through pawning goods (12% versus 22%).

In general, the results relating to crime and to sources of financial support for ecstasy use are consistent with the notion that the present sample had fewer financial problems related to their ecstasy use than the earlier sample, as was reported in Section 3.6.2. This may be related to the fact that subjects in the present sample were older than the earlier sample (25 versus 22 years) and were less likely to be full-time students (12% versus 36%).

3.7.3 Summary

- *relatively few ecstasy users are involved in criminal activity apart from dealing drugs*
- *relatively few ecstasy users are arrested and very few have previously been incarcerated*
- *significantly less drug dealing and property crime was reported in 2000 than in 1997*

3.8 Perceptions of police activity towards participants in the party drug market

3.8.1 Present sample

Although the majority of the sample had not perceived any recent changes in police activity, one third reported increases in police activity towards participants in the party drug market over the six months preceding the interview (Table 16). Common reports included that there were more undercover agents in dance venues such as clubs or raves, who were reported to be either carrying out surveillance or attempting to initiate 'buy-busts'. There were reports of a more visible uniformed police presence around venues and on the streets between venues at night, and a small minority of subjects reported that uniformed police entered the venues to check on the patrons and that venues were complying with liquor licensing requirements. Also frequently reported was that more venues had been raided in the preceding six to twelve months than in years gone by. There were comments regarding the increased security in venues, including strict checks of identification, bag searches, and the use of metal detectors to identify concealed weapons and canisters of nitrous oxide.

Despite the fact that most subjects reported that police activity had either remained stable or increased, the great majority of the sample reported that police activity had not made it more difficult for them to obtain illicit drugs recently (Table 16). Likewise, relatively few subjects felt that there had been changes in the number of their friends who had been arrested/cautioned recently.

3.8.2 KIS' reports

There was a high degree of consistency between the reports of users and of KIS with respect to police activity. The majority of KIS (*n*=12) perceived that there had been increases in police activity directed towards ecstasy users, and entertainment venues more generally, in the preceding six months. Most of these (*n*=10) reported an increase in visible uniformed police activity in and around venues, which was reportedly designed to ensure venues complied with licensing and safety legislation as well as to discourage flagrant drug dealing. Four KIS also reported an increase in

undercover activity in venues, both clubs and raves, particularly focussed on 'buy-busts'.

Table 16: Perceptions of police activity among ecstasy users (*n*=94)

Perception	% sample
Changes in police activity last 6 months	
Don't know	11
More activity	32
Stable	52
Less activity	5
More difficult to obtain drugs	
Yes	87
No	13
Friends arrested recently	
Less	2
Stable	80
More	18

Increased police activity, along with an increase in security personnel employed in entertainment venues, were reported to have led to changes in dealing activity in and around venues. Venue operators were described as far less tolerant of open illicit drug dealing on their premises than in years gone by. As a result, dealers were reported to either sell on the streets around venues rather than inside, or to conduct transactions inside toilet cubicles rather than openly on the dance floor, as has been the case in the past.

Three KIS commented that this change in the risks associated with purchasing ecstasy in an entertainment venue had led a greater proportion of users to consistently organise their drug purchases prior to a night out. Further, one KI employed in the security industry reported that the dealing within nightclubs and other venues has become more organised and hierarchical as the increase in security began to make it more difficult to openly buy and sell drugs in these environments. He described dealers operating in 'teams' of four or five within a venue, where, for example, one person holds the pills, another person holds the money, a third hands over the pill and a fourth takes the money. He considered this level of organisation difficult to counteract effectively.

3.8.3 Comparison with 1997 sample

Similar proportions of the 2000 and 1997 samples considered that there had recently been more police activity towards ecstasy users and the ecstasy market in general, and smaller but equivalent proportions perceived that there had been less activity (Table 17). More subjects in the present sample perceived that the level of police

activity had remained stable, whereas more in the 1997 sample felt unable to comment on changes in police activity.

Table 17: Perceptions of police activity among ecstasy users recruited in 2000 and in 1997

Perception	% present sample (*n*=94)	% 1997 sample (*n*=173)
Recently been more police activity	32	35
Recently been less police activity	5	4
Police activity remained stable	52	38
Unable to comment on police activity	11	23
Police activity not made more difficult to score	87	82
No. friends in trouble with police stable	80	76
More friends in trouble with police recently	18	24

There was general agreement between the two samples that police activity had not made it any more difficult to obtain drugs (Table 17), and that the number of people that they knew who had recently been in trouble with the police had remained stable. A slightly smaller proportion of the present sample reported that more of their friends had recently been in trouble with the police.

3.9 Other trends in the party drug market

Three quarters (78%) of this sample had perceived recent changes in the party drug market in Sydney. A wide range of changes were noted, but the trend most consistently reported by users was an increase in the availability and use of a pure and potent form of crystalline methamphetamine, known by various terms on the street including 'crystal', 'crystal meth', 'ice' and/or 'shabu'. In line with the reports of users, 11 of the 19 ecstasy KIS reported that there had been marked increases in the availability and use of this form of methamphetamine over the last six to 12 months. These KIS estimated that between 5 and 30% of the amphetamine market is now specific to such forms of the drug. The drug was reportedly administered via snorting, smoking through a glass pipe or injection. As noted in the main NSW Drug Trends report (Darke *et al.*, in press), similar reports were obtained from both the injecting drug users and the KIS interviewed for that arm of the IDRS. Clearly, this is a drug is growing in popularity among participants of a number of different illicit drug markets.

Another trend in this market frequently reported by users was that there are more people using ecstasy, younger people using ecstasy and that the age of initiation is continuing to fall. There was consistent agreement that ecstasy has become a 'mainstream' drug used by a wide variety of people, of both genders and of all ages, professions and socioeconomic backgrounds, and is widely used outside of dance

contexts, the scenes in which the drug originally made its appearance in Australia. KIS' reports supported these user perceptions: 15 of the 19 KIS stated that more people use ecstasy now, that more young people are using, and that a broader range of people are using it, such that it has become a 'mainstream' drug in Australian society. Many users and KIS felt that the use of ecstasy has become so 'normalised' in certain sections of society that for many people it is now a routine part of the weekend.

Two KIS, both involved with Sydney's most successful and sought-after nightclub, reported an interesting corollary to this 'normalisation' of ecstasy within a more mainstream drug culture. They believed that their clients considered themselves 'cutting edge' and were less inclined to use ecstasy now compared to a year or two ago because it is too mainstream and widespread now – it has become 'uncool' because everybody is doing it. However, both agreed that, overall, there are more ecstasy users now than in the past.

One KI reported that there is now a designated 'open-air' drug market for ecstasy in Sydney (i.e., where ecstasy can be obtained on the street, as can heroin, cocaine and cannabis in areas such as Kings Cross, Redfern and Cabramatta). He reported that it is in Roslyn Street in Kings Cross close to where cannabis can be obtained. However, only three subjects reported that they knew of such 'open-air' ecstasy markets in Sydney, and two subjects who reported that they had been offered 'pills' on the street during the day both considered this an anomaly and were not willing to trust that sellers were actually selling ecstasy. As discussed in the preceding section, the situation is clearly different around dance and other entertainment venues at night, when dealers are more visible and easy to access.

3.9.1 Summary

- *the availability and use of potent and pure forms of methamphetamine, known by various terms including 'ice', 'shabu', 'crystal' and 'crystal meth' is increasing among party drug users in Sydney*
- *both users and key informants perceived an increase in the number of people using ecstasy*
- *both users and key informants perceived an increase in the number of 'mainstream' people using ecstasy. The use of the drug is now firmly established in the illicit drug landscape in Sydney*
- *both users and key informants reported a decrease in the age of initiation into ecstasy use*

4.0 SUMMARY AND IMPLICATIONS

4.1 Summary of results

4.1.1 Demographic characteristics and patterns of drug use

The results of this study indicate that party drug users, a population defined in this study by regular use of tablets sold as 'ecstasy', tend on the whole to be young, relatively well-educated, and likely to be employed or engaged in studies. A variety of cultural backgrounds were represented in this sample, including a minority of subjects of indigenous Australian descent. The majority of subjects had not had contact with police or other social authorities, did not come from socially deprived backgrounds, and few engaged in crime other than drug dealing. None were currently in treatment for a drug-related problem, and only a small proportion had previously been incarcerated.

The results suggest further that a broad range of people engage in regular ecstasy use. Subjects typically began to use ecstasy in their late teens, and current frequency of use varied from once per month to several days per week; more than one-third of the sample used ecstasy at least one day per week. Almost half (44%) had used ecstasy continuously for more than 48 hours in the preceding six months. One-third of the sample had used more than four tablets in a single use episode in the preceding six months, and 53% reported that they 'typically' used more than one tablet. Consistent with other reports, use of ecstasy was primarily through oral routes, but a substantial minority (12%) had injected ecstasy. Multivariate analyses suggested that this practice was an extension of the intravenous use of other drugs, and very few subjects (3%) reported that they had used ecstasy mainly by injection in the preceding six months.

As with other Australian samples of party drug users (e.g., Boys, Lenton & Norcoss, 1997), it is accurate to describe this sample as extensive polydrug users, half of whom had a preference for ecstasy. Substantial minorities of the sample regularly used drugs such as alcohol, cannabis, tobacco, amphetamine, and cocaine concurrently with ecstasy, and drugs such as cannabis, alcohol and benzodiazepines to ease the 'come down' or recovery period following acute ecstasy intoxication, emphasising the need for research and education on the effects of such polydrug use.

On average, subjects reported nine recent physical and five recent psychological side-effects which they perceived as due, at least in part, to their use of ecstasy. These side-effects were consistent with those described in earlier reports of ecstasy users, although it is certainly the case that current Australian research reports a higher incidence of side-effects among users than earlier research conducted internationally (e.g., Hayner & McKinney, 1986; Cohen, 1995; Curran & Travill, 1997; van Laar & Spruit, 1997). Ecstasy-related occupational, relationship and financial problems were also reported relatively frequently by the present sample, and although many of these were relatively minor, some constituted significant disruptions to functioning, including loss of employment, the ending of relationships, and the inability to pay for food or rent.

The results relating to demographic characteristics, patterns of ecstasy and other drug use, and ecstasy-related harm, were notable for their similarities to the results from the study of ecstasy users conducted in Sydney in 1997. Although patterns of use of some specific drugs appear to have changed since this time, generally, it also seems to be the case that as the popularity of a drug waxes and wanes, the popularity of another evolves to fill the niche the first previously occupied in the market.

Given the marked similarities between the results of the two studies, it seems reasonable to suggest that the main change in Sydney's party drug market since 1997 has been its expansion. Both users and key informants in the present study consistently reported that the number of people using ecstasy has increased recently and that, in recent years, ecstasy has become a mainstream drug firmly established in the illicit drug landscape in Sydney (see Section 3.9). These reports are validated by the results of the 1998 NDS Household Survey, which indicated that prevalence of both lifetime and recent use of ecstasy in Australia had doubled since the 1995 survey (see Section 3.1.4). In short, similar sorts of people are using ecstasy and other drugs in similar sorts of ways to 1997; it is just that, now, there are more of them.

4.1.2 Price, purity and availability

The expansion of the market for ecstasy may explain its $10 decrease in price since 1997. Forty dollars is currently the standard price for a single tablet of ecstasy, whereas in 1997 a tablet cost $50. Tablets sold as ecstasy have remained readily available since that time, although it seems highly likely that the proportion of tablets which are manufactured locally has increased since 1997 and that there has been a concomitant decrease in the proportion of tablets available which actually contain MDMA. On the other hand, seizures of ecstasy made in NSW suggest that those tablets which do contain MDMA have steadily increased in purity since 1996, with an average purity in 1999/00 of 37%. It is extremely likely that the majority of these tablets are imported into Australia, generally from Europe and/or the United Kingdom (ABCI, 2000).

The small numbers of subjects who felt confident enough of their knowledge about other party drugs to comment on their price, purity and availability indicates relatively limited exposure to such drugs among this sample. Such low base rates in the first year of monitoring of party drugs by the IDRS will provide useful baseline data against which to compare future IDRS results.

4.1.3 The emergence of methamphetamine

As in the main IDRS (Darke, Topp & Kaye, 2001), the emergence of pure and potent forms of methamphetamine, known by various street names including 'ice', 'shabu', 'meth', 'crystal meth', and 'base', was documented in the party drugs component of the study. As among the IDU who form the sentinel drug user population in the main IDRS, there was confusion among party drug users as to what the various terms refer to and how the forms of the drug relate to each other and to the types of amphetamine traditionally available in Sydney. For example, some users report that ice and shabu are different names for the same drug, whereas others consider that

the two are different drugs; some report that crystal meth is something different again, whereas others believe that it is not, and so on. There is also a lack of understanding among users that the different terms all refer to forms of methamphetamine, perhaps due to clever marketing campaigns by manufacturers and/or distributors. For example, some users reported that ice is 'heroin-based cocaine' or a 'mixture of cocaine and amphetamine', as this is what they had been told by those from whom it was purchased.

Although clarity on such issues is clearly desirable for authorities to plan appropriate interventions, as well as to allow consumers to make informed decisions, one thing is certain: the availability and use of methamphetamine in Sydney is spreading, and if this continues to be the case, serious public health implications can be expected. Numerous adverse effects of amphetamine were documented throughout the 1990s. Physical health problems such as poor appetite, fatigue, tremors, trouble sleeping, cardiac arrythmias, headaches, joint pains and weight loss are frequently reported by samples of illicit amphetamine users, as are psychological problems such as depression, anxiety, irritability, paranoia, mood swings, difficulty concentrating, aggression and hallucinations (e.g., Hall & Hando, 1994; Hall, Hando, Darke & Ross, 1996; Klee & Morris, 1994; Williamson *et al*., 1997).

Amphetamine-related financial, relationship and occupational problems have also been reported by substantial proportions of samples of regular users (e.g., Morgan & Beck, 1997; Hando, Topp & Hall, 1997). The popularisation and widespread use of methamphetamine in place of cannabis in Hawaii has led to devastating effects for individuals, families and local communities (Joe-Laidler & Morgan, 1997). More recently, heavy amphetamine use has been associated with neuropsychological deficits that could not be accounted for by premorbid intelligence, concurrent polydrug use or acute intoxication (McKetin & Mattick, 1997, 1998). This deficit is related specifically to the inability among heavy users to focus attention in relevant stimuli, leading to an increased load on limited attentional resources (McKetin & Solowij, 1999).

Consistent with the growing recognition of the adverse physical, psychological, cognitive and social effects of chronic amphetamine use, an earlier NDARC study examined treatment seeking among amphetamine users in Sydney (Hando *et al.*, 1997). Chief among the findings of this study were the high proportion of users wising to modify their amphetamine use, and the lack of attraction of amphetamine users to traditional treatment services, which were perceived as inadequate and oriented towards opiate users. Subjects interested in receiving formal treatment recommended that it focus on amphetamine specific issues and be relevant to them (Hando *et al.*, 1997). These are legitimate suggestions, given that intervention services in this country have traditionally focussed on opiate and alcohol detoxification (Lintzeris, Holgate & Dunlop, 1996). Treatment services in this country are not equipped to deal with large numbers of amphetamine users presenting with amphetamine-specific problems; yet this is what may be expected if the availability and use of potent forms of methamphetamine in various illicit drug markets continues to spread.

These concerns have extra resonance among a sample of party drug users who are defined by their regular use of 'ecstasy': as discussed in Section 3.4.1.4, most of the

tablets sold as 'ecstasy' in Sydney do not contain MDMA at all, but rather, are manufactured locally and contain methamphetamine as the primary active compound. Thus, party drug users are perhaps more likely than other groups of drug users to use methamphetamine, even if some or all of this methamphetamine use is inadvertent.

As pointed out in Section 3.3.3, compared to the sample of ecstasy users interviewed in 1997, a substantially smaller proportion of the present sample reported recent use of any form of amphetamine (91% versus 75%). This pattern of results was not reflected in the proportions of the two samples who reported having ever used amphetamine, which were roughly equivalent (97% versus 92%). The reasons for this decrease in the proportion reporting recent amphetamine use are unclear, and these data are inconsistent with a multitude of other data from both the main IDRS and the party drugs component, which indicate that the availability and use of potent forms of methamphetamine are increasing. Even so, it is still extremely likely that virtually every subject in the present sample had actually used methamphetamine in the six months preceding the interview, but that they had consumed it in the form of a tablet which was sold to them as ecstasy. Thus, whether their use of methamphetamine was voluntary or otherwise, the fact remains that regular use of the drug is likely to lead to numerous harms of the sort outlined above.

4.2 Methodological issues

One of the main aims of this study, explicated in Section 1.1, was to examine the feasibility of using the extant IDRS methodology to monitor emerging trends in the party drug market. The results contained in this report clearly demonstrate that, with minor adjustments to the methodology, the IDRS can successfully monitor trends in this market. Given that 2000 was the first year of a two-year trial of the party drugs component, it is appropriate to reflect on the achievements of the trial in its first year, and discuss the methodological refinements that will be implemented in 2001.

4.2.1 The appropriate sentinel population

The 2000 IDRS party drugs component clearly demonstrated that it is possible to access a sentinel population of illicit drug users who are able to provide information about emerging trends in the party drug market. This population is necessarily different to the population of injecting drug users (IDU) that are accessed in the main IDRS. In support of the need to interview different drug users in the two components is the observation that only 13% of the IDU sample had used ecstasy in the six months preceding the interview, on an average of only 2 days (Darke, Topp & Kaye, in press). Likewise, only 3% of the IDU sample had used hallucinogens in the same timeframe, on an average of 3.5 days. Clearly, the limited exposure of the IDU to drugs such as ecstasy renders this group inappropriate to provide the detailed information required in the party drug component. It is therefore reassuring that an appropriate group of illicit drug users, who were able and willing to provide the required information, were accessed with relative ease. As discussed in Section 3.2.2, although the sample contained a small proportion of past and current heroin users, not one subject could be considered a primary opiate user. Further, statistical analyses throughout the report demonstrated that the results pertaining to ecstasy-

related harm could not be accounted for by an oversampling of intravenous polydrug users.

4.2.2 Number of subjects to be interviewed

Although the appropriate sentinel population of drug users were accessed for the party drug component of the IDRS, it was considered that interviewing 50 subjects, as required by the funding arrangement, was insufficient for the purposes of the study. A minimum of 100 ecstasy users should participate in any future party drug component conducted in any jurisdiction, and interviewing up to 150 users, where possible, will allow more confidence to be placed in the results of the study.

This is because ecstasy is a relatively new drug in Australia, having been widely used for only a decade. Although it undoubtedly is and will remain an established part of the illicit drug landscape in this country, equivalent indicator data sources such as those that exist for heroin or other illicit drugs, are yet to be developed. For example, in the main arm of the IDRS, the results are validated by their consistency with the Australian NSP Survey (MacDonald & Topp, 2000). Other data, such as those from the Australian Bureau of Statistics on overdose deaths and toxicology results from state drug analytical laboratories from the urine tests of intoxicated drivers and methadone clients, are also used to validate the subjective reports of IDU and KIS to allow more confidence to be placed in the results. Such established and varied sources of indicator data do not yet exist for party drugs, and thus the main sources of data currently available to allow the monitoring of trends in these markets are the reports of users themselves. In a situation in which the monitoring of trends is heavily dependent on information collated from users, a methodologically rigorous study will be one that seeks to interview a broad range and large number of users.

Related to this is the fact that, as yet for ecstasy, there is no professional equivalent to the methadone worker or NSP worker who is able to provide a wealth of information about heroin or amphetamine injectors, knowledge of which the IDRS can take advantage. By their very nature, ecstasy users are highly functioning members of society who are likely to be employed or engaged in studies, who are unlikely to present for treatment, have major legal problems or to die from drug-related complications, and who, in general, are a much less 'visible' population of illicit drug users than IDU. Therefore, the sample of KIS recruited for the party drug component of the IDRS was also quite different to that interviewed in the main arm of the study, and comprised mainly people working in the dance music and entertainment industries, such as party promoters, nightclub owners, security personnel and so on (see Section 2.2). Although such KIS do have regular contact with ecstasy users through the nature of their work, they do not necessarily discuss in detail with users their drug use and associated topics. Thus, in many cases, KIS who are appropriate for the party drug component of the IDRS are not necessarily as knowledgeable as are KIS who participate in the main IDRS. Once again, this state of affairs leads to a heavier dependence on the data collected in the user interview component, such that interviewing a larger sample of users is desirable.

4.2.3 Timing of interviews

Notification of funding approval for the party drugs component of the IDRS was received in June, and data collection commenced in August. In 2001, data collection will proceed in April-May. This is because the focus of the party drug interviews for both users and KIS is on the six months preceding the interviews. There are more events in the summer than the winter during which party drugs are likely to be consumed. In Sydney, these include the Christmas and New Year festive season, the Gay and Lesbian Mardi Gras in early March, and the outdoor summer music festivals such as the Big Day Out and Happy Valley. It is reasonable to assume that local manufacturers and/or distributors of party drugs are likely to focus their attention on such events and do their best to provide the extant market with the drugs it demands at these times. Thus, it is considered that the interview must include in its timeframe of reference all such events, and April-May, as the summer season is winding down, is an appropriate time to collect such data.

4.2.4 Drawing comparisons over time

When considering methodological issues, it is appropriate to consider the methodological limitations inherent in drawing comparisons between different samples across time, such as those that were drawn in the present report between the ecstasy users recruited in 2000 and those recruited in 1997.

In survey research, such as that described and reported here, inferences about the entire population are drawn from the results of studies of sample (Kerlinger, 1986). By definition, illicit drug use is a hidden and socially stigmatised activity. Due to the inherently 'hidden' nature of such drug use (Griffiths, Gossop, Powis & Strang, 1993), it is impossible to define the parameters of an illicit drug-using population (such as ecstasy users in Sydney, for example), and therefore to obtain a random sample of that population. Although it is perfectly appropriate to draw comparisons across time between random samples drawn from the same population, because such samples can be considered to represent the entire population (Kerlinger, 1986), it is somewhat less appropriate to do so when the samples to be compared are not random and it cannot be confidently ascertained that they represent the entire population from which they were drawn.

The ecstasy users recruited for both the present study and the study conducted in 1997 were obtained through purposive sampling (characterised by the use of judgement and a deliberate effort to obtain representative samples by including presumably typical groups in the sample; Kerlinger, 1986), rather than the more desirable probability sampling (in which each sampling unit has a known probability of being selected such that inferences about the population can be derived from the sample with a measurable degree of precision; Lilienfeld & Lilienfeld, 1980). Although in both studies every effort was made to recruit as wide a cross-section of subjects as possible, it is not possible to state with complete confidence that one or both samples represented the entire population of ecstasy users in Sydney. Therefore, caution must be exercised when interpreting differences between the two samples as indicative of changes in the ecstasy market over the intervening years.

However, in support of the notion that drawing such comparisons is a reasonable analysis strategy, it should also be noted that the methodology of the two studies was identical. Recruitment methods (street press, dance music publications, gay and lesbian 'niche' market publications) and entry criteria were the same in both studies, the questions asked of subjects were the same, and the first author of the present report interviewed the bulk of subjects in both studies. It is therefore considered that drawing comparisons between the samples is an appropriate strategy and that doing so provided valid information on changes in the ecstasy market between 1997 and 2000. It is also considered that continuing to implement the same methodology in the future will allow the successful monitoring of trends in this market over time, as has now occurred in the main IDRS for five years (Darke, Hall & Topp, 2000).

4.3 Implications

The results contained in this report clearly demonstrate that, with minor adjustments to the methodology, the IDRS can successfully monitor trends in the party drug market. This is information that cannot be obtained through the extant IDRS, due to the low rates of exposure of IDU to party drugs such as ecstasy and LSD. NDS Household Survey data and the reports of both ecstasy users and KIS indicate that over the last decade, ecstasy has become firmly entrenched in the illicit drug landscape of this country, and all indications are that this is unlikely to change. Indeed, a youth culture that revolves around the use of drugs like ecstasy and associated trends in music and fashion is evident not only in Australia but throughout the Western world (Griffiths *et al.*, 1997).

It remains unclear what the long-term effects of chronic ecstasy use will be, but the evidence continues to mount that the drug is neurotoxic to serotonergic regions of the brain and that current heavy users are likely to experience elevated risk of mood disorders and cognitive dysfunctions in the future (Boot, McGregor & Hall, 2000; Hegadoren, Baker & Bourin, 1999). It must be acknowledged that it is difficult to ascertain exactly what users take when they purchase tablets purported to contain ecstasy in Sydney, as well as to unravel the effects of concurrent polydrug use. However, this is not reason enough to discontinue the sort of monitoring in this market that the IDRS has successfully conducted in other Australian illicit drug markets for five years (Darke, Hall & Topp, 2000). Substantial rates of drug-related harm were reported by the current sample of ecstasy users, as they were in 1997 (Topp *et al.*, 1998). Although authorities have continued to fight to reduce the importation and local manufacture of drugs such as ecstasy in this country, they remain readily available to interested consumers, and in fact have become cheaper, purer, and more widely used since this time. The importance of continued monitoring of such a dynamic market, the current participants of which may experience significant harms, both presently and in the future, cannot be understated.

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