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 and to publish data in a timely fashion, 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 individuals who have frequent contact with illicit drug users, and indicator or secondary data sources, such as national drug use household surveys, ABCI (Australian Bureau of Criminal Intelligence) seizure data, customs data, and arrest data. Trends are identified on the basis of data collected from those three principal sources.

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).

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 of South Australia (DASC) provided 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.

This report summarises the trends in ecstasy and other "party drug" use identified in Brisbane in 2000. These trends have been extrapolated from three data sources:

- face-to-face interviews with 50 current ecstasy users recruited in Brisbane;
- face to face interviews with 15 key informants who, through the nature of their work, had been in regular contact with ecstasy users in Brisbane during the six months preceding the survey;
- indicator data sources such as purity data from seizures of ecstasy made in Queensland, and prevalence data drawn from the National Drug Strategy Household Survey (NDSHS; AIHW, 2000).

A study of 60 ecstasy users in Brisbane, conducted by NDARC (National Drug and Alcohol Research Centre) 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 for comparison with responses from the present sample of ecstasy users. Comparisons between the two samples (2000: n=50; 1997: n=60) have been limited, however, to price, purity, and availability of various party drugs, as analyses revealed that the two groups of users differed significantly with respect to certain aspects of their demographics and their patterns of drug use. For example, compared to participants in the current study, 1997 participants reported significantly less frequent and less intensive ecstasy use; were significantly more likely to be unemployed; recent IV heroin users; and to nominate heroin as their favourite drug. It is most likely that these group differences were attributable to the employment of more stringent inclusion criteria in the current study. That is, while certain aspects of the methodology of the two studies were identical (including the recruitment method and the questions asked), the 1997 study had less stringent inclusion criteria (use of ecstasy three times in the past year, and at least once during the six months preceding the survey) than those applicable to the current study (use of ecstasy on at least six different occasions during the six months preceding the survey). Further analyses revealed that approximately 45% of the 1997 participants would have failed to qualify for inclusion in the current study on the basis of their reported frequency of recent ecstasy use. The subset of Brisbane ecstasy user participants from the 1997 study whose frequency of recent ecstasy use would have qualified them for inclusion in the current study was too small to provide a valid basis for comparison on demographic and drug use variables.

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; Fry & Miller, 2001; Hargreaves & Lenton, 2001; Humeniuk, Ali, Machin & Shimamoto, 2001; McAllister, 2001; O'Reilly & Rysavy, 2001; Topp, Darke & Kaye, 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 aims of the party drug module of the Queensland IDRS 2000 were:

- 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;
- to describe the characteristics of a sample of ecstasy users in Brisbane;
- to examine the patterns of ecstasy and other drug use among a sample of current ecstasy users;
- to document the current price, purity and availability of ecstasy and other party drugs in Brisbane;
- to describe and examine ecstasy users' perceptions of the incidence and nature of ecstasy-related harms, including physical, psychological, financial, occupational, social, and legal harms;
- to identify emerging trends in the party drug market that require further investigation;
- to compare key findings of the present study with Queensland findings from the 1997 ecstasy user survey, as reported by Topp *et al.* (1998; 1999).

2.0. Method

2.1. Survey of Ecstasy Users

There is an extant market for ecstasy (tablets and capsules that are purported to contain 3,4- methylenedioxymethamphetamine [MDMA]) in Australia that has existed for more than a decade. In contrast, the other drugs used by the party drug using population have either declined in popularity since the appearance of ecstasy in this country (e.g., LSD); fluctuate in availability (e.g., MDA - 3,4-methylenedioxyamphetamine); or are relatively new in the market and are yet to be as widely used as ecstasy (e.g., ketamine and GHB). Given that ecstasy appears to be 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.

2.1.1. Recruitment

Fifty ecstasy users, including 31 males and 19 females, were interviewed between October, 2000 and mid-January, 2001. The majority (88%) were interviewed in 2000. All participants were residents of Brisbane. Participants were recruited through a purposive sampling strategy (Kerlinger, 1986), which included advertisements in entertainment 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, Lenton & Alorcoss, 1997; Ovendon & Loxley, 1996; Solowij, Hall & Lee, 1992) and international (e.g., Dalgarno & Shewan, 1996; Forsyth, 1996; Peters, Davies & Richardson, 1997) studies. Initial contact was established through either newspaper advertisements or interviewers' personal contacts. Following interviews, participants were asked if they would be willing to ask friends who they thought might be able to provide the desired information to contact the researchers.

2.1.2. Procedure

Participants contacted the researchers by telephone and were screened for eligibility. To meet entry criteria, participants had to be at least 16 years of age, they must have used ecstasy at least six times during the preceding six months; and they must have been a resident of Brisbane for at least 12 months. Participants were assured that all information they provided was strictly confidential and anonymous, and that the study would involve a face-to-face interview of approximately 45 minutes. All participants were volunteers who were reimbursed AUD$20.00 for their participation. Interviews took place in various locations, including offices at QADREC (Queensland Alcohol and Drug Research and Education Centre), coffee shops, and parks. Interviews were conducted by one of four interviewers trained in the administration of the interview schedule. The nature and purpose of the study was explained to participants before informed consent to participate was obtained.

2.1.3. Measures

Participants 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 users (Darke et al., 1994; Hando & Hall, 1993; Hando, Topp & Hall, 1997). The interview schedule focussed primarily on the six months preceding the interview. The survey allows assessment of 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 (i.e., relationship, financial, legal, and occupational problems); price, purity, and availability of a number of

different 'party drugs'; and general trends within the party drugs 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 analyses. Data were analysed using SPSS for Windows, Version 10.0.

2.2. Key Informant Survey

To maintain consistency with the main IDRS, it was decided that the eligibility criterion for key informant participation in the party drug component would be regular contact, in the course of employment, with a range of ecstasy users during the preceding six months. It proved difficult, however, to recruit key informants 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 amphetamines. Although some health professionals were interviewed, it was necessary to look beyond the health sector to the entertainment industry, specifically, the dance music industry, in order to identify people who could be considered 'experts' on ecstasy and ecstasy users.

Fifteen key informants (12 male and three female) from various regions of Brisbane, the Gold Coast, and the Sunshine Coast were interviewed by the first author either on the telephone (n=4) or in person (n=11) between September and November, 2000. They were initially contacted by telephone and were screened for their eligibility to participate after obtaining informed consent. The 15 ecstasy key informants represented a range of occupations. Six key informants were either DJs, event promoters, or producers in the (rave/dance) music industry; two were General Practitioners; three were outreach workers who provided education first aid and brief treatment interventions at entertainment venues such as raves, dance parties, and outdoor events; three were drug treatment workers; and the remaining key informant was involved in the rave fashion industry in Brisbane. All key informants reported contact with users through both their work and social interactions.

Three key informants stated that they worked primarily with gay males; two worked with youth; and one worked primarily with students/youth. Key informants reported a relatively high frequency of contact with ecstasy users in the recent past. Two key informants reported having contact with more than 100 ecstasy users during the week prior to the interview. Two reported contact with between 51 and 100 users; three reported contact with between 21 and 50 users; five reported contact with between 10 and 20 users; and only three key informants reported contact with fewer than 10 illicit drug users during the week preceding the survey. The average number of days per week that key informants reported having been in contact with illicit drug users during the six months preceding the survey was 4.26 (*SD*=1.66). All key informants reported having obtained the information provided in the interview through their personal contact with ecstasy users, and some also relayed information from their own observations (n=9), talking with their colleagues (n=4), and the media (n=3). Ecstasy key informants were either moderately (n=6) or very (n=9) certain of the information they provided.

3.0. Results

3.1. Demographics of Ecstasy Users

3.1.1. Ecstasy User Participants

Demographics of the 50 ecstasy user participants are summarised in table 3.1.1.

Table 3.1.1. Demographics of Ecstasy User Participants.

	Males (n=31)	Females (n=19)	Total (N=50)
Age			
Min	18	19	18
Max	37	33	37
M	24.7	24.5	24.6
SD	5.62	4.35	5.13

	Males		Females		Total	
	n	(%)	n	(%)	n	(%)
Sexual Identity						
Heterosexual	25	(81)	12	(63)	37	(74)
Gay Male	4	(13)	-	-	4	(8)
Lesbian	-	-	2	(11)	2	(4)
Bisexual	2	(6)	5	(26)	7	(14)
Education Completed						
Year 12	27	(87)	18	(95)	45	(90)
University/College Course	14	(45)	10	(53)	24	(48)
Trade/Technical	11	(36)	5	(26)	16	(32)
Employment Status						
Employed Full-time	11	(36)	7	(37)	18	(36)
Employed Part-time/Casual	10	(32)	4	(21)	14	(28)
Full-time Students	6	(19)	5	(26)	11	(22)
Unemployed	4	(13)	3	(16)	7	(14)
Prison History	1	(3)	-	-	1	(2)
Currently in Drug Treatment	-	-	-	-	0	0

As in table 3.1.1, males comprised 62% of the ecstasy user sample. The mean age for the entire sample was 24.6 years, and there was negligible difference in the mean age of males and females. The majority of male (81%) and female (63%) participants identified themselves as heterosexual, and although females were slightly more likely than males to identify as bi-sexual, gender differences in bi-sexual identification are unreliable due to the small number of responses. Four male participants had completed 10 years of schooling, and one female participant had completed 11 years of schooling. The remaining 90% of ecstasy user participants had completed year 12, and approximately half of the sample had completed a university or college course. Approximately 36% of the sample were full time workers; seven (14%) of the participants reported being unemployed; and 11 (22%) were full time students. None of the participants identified themselves as sex industry workers. One male reported having been incarcerated at some stage in his life, and none of the participants reported being in any form of drug treatment. None of the participants identified themselves

as being of ATSI descent, and two participants spoke a language other than English in their home environment. In summary, the majority of the ecstasy user sample appear to comprise relatively young, well educated individuals who were either working or continuing with their studies.

3.1.2. Key Informant Reports

Taking account of responses describing special populations (e.g., a youth worker reporting maximum age, or a key informant mostly in contact with gay men reporting gender composition), key informant descriptions of the ecstasy users with whom they had recent contact were largely consistent with the characteristics of the present sample of ecstasy users, with the exception that some key informants reported contact with slightly older users. Ecstasy users who comprised the basis of key informant reports were aged between 15 and 65 years. Nine key informants reported the most commonly occurring user age as 20-25 years, and six reported the modal age as 25-30 years. Notwithstanding, eleven of the 15 key informants proposed that the number of teenage users had increased during the past few years. On average, males comprised 55% of the ecstasy users known to key informants, and while the majority of those users were described as originating from an English speaking background, four key informants had noted an increase in the number of Asian ecstasy users in Brisbane during 2000. The median estimate of ecstasy users who had finished year 12 was 85% and, on average, 55% were reported to have tertiary qualifications. Ecstasy users with fewer than 10 years of schooling comprised less than 5% of the ecstasy users known to three key informants. Ecstasy users in full-time employment comprised between 60% and 90% of the users known to 12 key informants, but the remaining three key informants (each of whom were DJs) reported higher rates of contact with either part-time/casual or unemployed users. Overall, consistent with the demographic information provided by ecstasy user participants, key informants generally 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.

3.2. Ecstasy Use

3.2.1. Prevalence of Ecstasy Use in Queensland

According to NDSHS (AIHW, 2000) data, the proportion of the Queensland population who had ever tried ecstasy increased from 1.5% in 1995 to 3.8% in 1998. In 1998, however, lifetime prevalence of ecstasy use in Queensland (3.8%) was estimated to be lower than in the rest of Australia (4.9%). The proportion of the Queensland population estimated to have used ecstasy during the year preceding each survey (recent users) increased from 0.3% to 1.4% between 1995 and 1998, although again, the estimated percentage of recent users in Queensland (1.4%) was lower than the corresponding value for the rest of Australia (2.6%). Increased prevalence of ecstasy use has been accompanied by a considerable expansion of the rave/dance party industry in Brisbane during the latter half of the 1990s.

According to the NDSHS (AIHW, 2000), the mean age of initiation to ecstasy use among novice[1] users in Queensland was estimated to have reduced from 24 years in 1995 to approximately 21 years in 1998. The mean age of initiation to ecstasy use among novice Queensland users in 1998 (20.8 years) was slightly higher than for heroin (19.7 years); amphetamines (19.8 years) and LSD/hallucinogens (19 years), although slightly lower than for cocaine (22.6 years).

[1] defined as users who had first used the substance within the three years preceding the survey.

3.2.2. Patterns of Ecstasy Use

The median age at which both male and female ecstasy user participants reported first using ecstasy was 19 years (min=12, max=31), such that on average, participants had been using ecstasy for 4.8 years (*SD*=3.9 years). All participants reported having used ecstasy at least monthly at some stage, at a median age of 19.5 years (min=15, max=34), although monthly use may not have been maintained since it was first instigated. The number of days that participants reported having used ecstasy during the six months preceding the survey varied between six and 102, and the median number of days used was 18 (maximum possible days = 180). Ecstasy user participant responses detailing various aspects of their use of ecstasy and their history of IV drug use are summarised in table 3.2.1.

Table 3.2.1. Ecstasy Use and Prevalence of Injecting Drug Use as Reported by Ecstasy User Participants (n=50).

	n	%
Ecstasy as Favourite Drug	26	52
Used Ecstasy at Least Weekly During the Past 6 Months	21	42
Use More Than 1 Ecstasy Tablet or Capsule per "Typical" Session	24	48
Binged on Ecstasy for >48 hours in Last 6 Months	30	60
Ever Injected Ecstasy	8	16
Ever Injected Any Drug	14	28
Mainly Swallowed Ecstasy in Last 6 Months	49	98

As indicated in table 3.2.1, 52% of the sample nominated ecstasy as their favourite drug, and 21 (42%) of the 50 participants reported having used ecstasy at least weekly (on average) during the six months preceding the survey. The remaining participants nominated either amphetamines (n=9, 18%); cocaine (n=6, 12%); cannabis (n=5, 10%), alcohol (n=3, 6%); or LSD (n=1, 2%) as their favourite drug. None of the participants rated heroin as their favourite drug.

The median number of ecstasy tablets that participants reported using in a typical episode of use was one (min=0.5, max=6). Twenty-four (48%) participants reported using more than one tablet in a typical episode of use, and five (10%) participants reported using more than two ecstasy tablets in a typical session of use. The median number of ecstasy tablets that participants reported having used in their most intensive episode of use during the six months preceding the survey was three (min=1, max=35).[2] Ten participants (20%) reported having used more than five ecstasy tablets in their most intensive period of use during the six months preceding the survey.

Thirty (60%) of the ecstasy user participants reported having binged on ecstasy (i.e., used ecstasy on a continuous basis for more than 48 hours without sleep) at least once during the six months preceding the survey. Excluding the 16 (32%) participants who had not used party drugs continuously for more than 24 hours during that period, the median length of the longest period of continuous use was three days (min=1.5 days, max=10 days). As noted in section 3.3.1, approximately half of the participants reported normally (at least two thirds of the time) using amphetamines when using ecstasy.

[2] the participant who reported having used 35 ecstasy tablets in one period of continuous use reported having consumed those tablets over a period of eight days.

There were no significant age or gender differences in those who had binged on ecstasy during the six months preceding the survey (n=30) and those who had not (n=20). Further analyses revealed that those who had binged on ecstasy had used the substance with greater frequency during the six months preceding the survey than those who had not (median = 24 days versus median = 12 days, U=198, p=0.04). Although participants who had binged on ecstasy reported having used more ecstasy tablets in their most intensive period of continuous use and in a "typical" period of continuous use, median differences failed to achieve conventional levels of statistical significance.

3.2.3. Routes of Administration of Ecstasy

As detailed in table 3.2.1, although eight (16%) ecstasy user participants had injected the substance at some stage in their life, 49 (98%) of the 50 ecstasy user participants reported ingestion as their main route of administration of ecstasy during the six months preceding the survey. The remaining participant reported mainly administering the substance anally ("shafting"). Twenty-six (52%) ecstasy user participants reported having inhaled the substance, and 19 (38%) had done so at least once during the six months preceding the survey. Only five (10%) participants had ever smoked ecstasy. Lifetime and recent prevalence of use of various licit and illicit substances among the ecstasy user sample, including the relative prevalence of various routes of administration of those substances, are presented in appendix A.

Nine (29%) male and five (26%) female ecstasy user participants, comprising 28% of the total sample, reported having injected an illicit substance at some stage in their life. Eight of those individuals reported having injected ecstasy, although only four participants reported having recently[3] injected that substance. The median age of initiation to IV ecstasy use was 19.5 years (min=15 yrs, max = 30 yrs). Ecstasy, however, was the first drug injected by only one participant, and the majority of injectors (n=10/14) nominated amphetamines as the first drug injected. The remaining three IV users initiated to injecting drug use with heroin. The average number of drug types ever injected (among those who had ever injected an illicit substance) was 3.86 (SD=2.87, min=1, max =9). As detailed in appendix A, both participants who had injected heroin during the six months preceding the survey reported having done so on only one day during that 180 day period.

3.2.4. Key Informant Reports

In keeping with the pervasive stereotype, the majority of ecstasy users known to key informants were reported to use ecstasy when attending raves and dance parties; nite-clubs; "doofs" (outdoor, often clandestine rave parties); large outdoor festivals; or similar events. Several key informants commented, however, that ecstasy was increasingly being used in a wide range of other social environments (e.g., parties and picnics), and that an increasing number of users were not overly interested nor involved in the dance party scene.

Most of the users known to key informants were reported to use ecstasy at greater than monthly intervals, and weekly users comprised between 25% and 60% of the users known to seven key informants. Consistent with demographic data portraying the majority of ecstasy users as individuals with a high degree of functioning (see section 3.1), the majority of ecstasy users known to key informants were reported to use the substance on weekends, most commonly when partying with friends at clubs or dance parties. For these users, the psycho-active effects were reported to result in wakefulness until at least the early hours of the following morning. Many users, however, were reported to engage in binges involving use of

[3] within the six months preceding the survey.

the substance, sometimes in conjunction with amphetamines (see section 3.3) for several days in succession (usually Friday night through to Sunday morning, allowing Sunday to at least partially recover). Key informants suggested that the majority of users known to them used between one and two tablets during a "typical" session of use. However, novice users, or experienced users trying a novel brand of ecstasy pill were reported to sometimes use half a tablet in the first instance, and to "top-up" if required. A small proportion (5%-10%) of the users known to seven key informants were described as relatively "heavy" users. These individuals were reported to engage in longer binges, sometimes extending to many days with little or no sleep, and to use between one and four ecstasy tablets per night, most often in conjunction with amphetamines.

All key informants proposed that the majority of ecstasy users known to them used ingestion as their primary route of administration of ecstasy. However, six key informants reported that occasional IV users comprised between five and 15% of the users with whom they had frequent contact, and the majority of key informants had noticed an increase in the number of users injecting ecstasy. Consistent with ecstasy user participant reports, IV use of ecstasy was described as largely confined to users who had already injected other substances. Although one key informant reported contact with two ecstasy users who used ecstasy exclusively by injection, the remainder suggested that IV users ingest the substance on occasions.

3.3. Other Drug Use

3.3.1. Drug Use History

Ecstasy user participant reports describing the history of use of various licit and illicit drugs, including the estimated frequency of use during the six months preceding the survey are detailed in table 3.3.1. Percentages in the "ever used" column reflect the percentage of the total sample. Percentages in the "Used in the Last 6 Months" column represent the percentage of those participants who had ever used a particular drug. Values in the "No. Days Used in Last 6 Months" column were calculated from the responses of those participants who had used the substance at least once during that period. The maximum possible number of days used was 180.

As indicated in table 3.3.1, all ecstasy user participants reported having used cannabis at least once, and 94% (n=47) of the sample reported recent cannabis use, defined as use within the six months preceding the survey. Recent cannabis users had, on average, used the substance every second day during that period, and 34% (n=16) of recent cannabis users reported daily use. Thirty six (77%) of the recent cannabis users, comprising 72% of the entire sample, had used that substance at least weekly (on average) during the six months preceding the survey.

Table 3.3.1 also suggests that, in addition to ecstasy and cannabis, the majority of the ecstasy user participants had used alcohol; amphetamines; tobacco; LSD; nitrous oxide; cocaine; and benzodiazepines. Cannabis and tobacco, however, were the drugs that ecstasy user participants used most frequently during the six months preceding the survey. Twenty-four (48%) participants, or 60% of the recent tobacco users, reported daily use of tobacco.

Table 3.3.1. Number and Percentage of the Total Ecstasy User Sample (n=50) Who Reported Having Ever Used Various Licit and Illicit Substances; Number and Percentage of Recent Users; and Frequency of Use of Each Substance During the Six Months Preceding the Survey.

	Ever Used		Used in Last 6 Months*		No. Days Used in Last 6 Months**	
	n	%	n	%	Median	Min-Max
Ecstasy	50	100	50	100	18	6-102
Cannabis	50	100	47	94	90	1-180
Alcohol	49	98	48	98	30	1-180
Amphetamine (any form)	48	96	43	90	12	1-72
Amphetamine (powder)	47	94	31	66	6	1-38
Tobacco	46	92	40	87	180	1-180
LSD	43	86	24	56	3	1-30
Nitrous oxide	41	82	19	46	10	1-50
Methamphetamine (crystal)	40	80	37	93	10	1-72
Cocaine	35	70	19	56	2	1-24
Benzodiazepines	32	64	25	78	4	1-24
Amyl nitrate	26	52	13	50	4	1-72
MDA	20	40	14	70	2	1-30
Antidepressants	18	36	10	56	8	1-90
Heroin	16	32	2	13	1	1-1
Ketamine	15	30	7	47	2	1-5
Mushrooms	11	22	4	36	4	1-20
Ice or shabu	8	16	4	50	4	1-15
Other opiates	7	14	2	29	2	2-2
GHB	9	18	6	67	3	2-10
DMT	3	6	0	0	-	-
Methadone	2	4	0	0	-	-

* percentage of those who had ever used the substance

** includes only those participants who had used that substance during the six months preceding the survey (maximum possible number of days used = 180).

Approximately half the sample had tried amyl nitrate, and 15 (30%) had used ketamine, with seven (47%) of those users reporting infrequent use in the six months preceding the survey. Approximately 40% of the sample had tried MDA, with the majority reporting relatively infrequent recent use. Although 16 (32%) participants had tried heroin, only eight (16%) reported having ever injected that substance; two reported using it during the six months preceding the survey; and none reported using heroin on more than one day during that period.

None of the 10 recent anti-depressant users reported daily use of those substances, and the majority of recent users reported relatively low frequency of use. Infrequent use of anti-depressants among ecstasy users was also confirmed by several key informants. According to

a minority of those key informants, some users held the belief that SSRI anti-depressant medications mitigate the impact of MDMA upon serotonin levels.

Lifetime prevalence of cocaine use in this convenience sample of ecstasy users (70%) was higher than among the convenience sample of IDU (injecting drug user) participants (50%) recruited at various NSP outlets in Brisbane into the main year 2000 Queensland IDRS (McAllister, 2001), although frequency of recent cocaine use was relatively low. Although three (6%) ecstasy user participants reported having used DMT (dimethyltrytpamine, "businessman's lunch"), none reported recent use of that substance.

3.3.2. Poly-drug Use

Data presented in table 3.3.1 are also indicative of a high level of poly-drug use among ecstasy user participants. For example, of the eighteen[4] substances listed in table 3.3.1, the median number of drugs ever used was 10, and the median number of drugs recently used was seven. There were no significant age or gender differences in these indices of poly-drug use.

The majority of participants reported normally (i.e., two thirds of the time) using at least one other licit or illicit substance either in combination with ecstasy (88%), or during the "come-down" or recovery period (92%). From a subset of 15 drugs including amphetamines (any form); cocaine; LSD; MDA; ketamine; GHB; DMT; amyl nitrate; nitrous oxide; cannabis; heroin; other opiates; alcohol; tobacco; and benzodiazepines; the average number of drugs used with ecstasy was 2.2 (*SD*=1.3). The drugs most commonly reported to be used with ecstasy were; tobacco (64%); cannabis (58%); amphetamines (48%); and alcohol (38%). Approximately half of the participants who used alcohol with ecstasy reported usually consuming more than five standard drinks in a session of use. A smaller proportion of the ecstasy user participants reported using nitrous oxide (8%); cocaine (4%); and amyl nitrate (4%) on at least two-thirds of the occasions upon which they used ecstasy. None of the participants reported regular use of LSD with ecstasy. The average number of drugs that participants reported normally (at least two thirds of the time) using to "come down" from ecstasy was 1.8 (*SD*=1), and the drugs reported as being used for that purpose were cannabis (74%); tobacco (52%); alcohol (32%); benzodiazepines (14%); and nitrous oxide (10%). None of the participants reported regular use of heroin to come down from ecstasy.

The quantities of various party drugs used by ecstasy user participants during their most intensive (heaviest) episode of continuous use, and during a typical period of continuous use are presented in table 3.3.2.

[4] excluding methadone and including any form of amphetamines.

Table 3.3.2. Quantities of Various Party Drugs Used by Ecstasy Users During their Heaviest Episode of Continuous Use and During a Typical Episode of Continuous Use During the Six Months Preceding the Survey.

Drug Type (measure)	Typical Episode		Heaviest Episode	
	Median	Range	Median	Range
Ecstasy (tabs)	1	0.5-6	3	1-35
LSD (tabs)	1	0.25-2	1.25	0.5-5
Amphetamine Powder (grams)	0.5	0.1-2	1	0.2-3
Methamphetamine (point=0.1 grams)	1	0.5-5	2	0.5-10
Ice or shabu (points)	1	1-2	1	1-2
MDA (caps)	1	0.25-3	1	0.25-6
Cocaine (grams)	0.25	0.1-1	0.5	0.25-3
Amyl nitrate (snorts)	2.5	1-10	5.5	1-50
Nitrous oxide (bulbs)[a]	7	2-30	20	5-100
Ketamine (lines) (n=4)	1.5	1-4	1.5	1-15
Ketamine (pills) (n=2)	0.5	-	2	1-3

Note: With the exception of ketamine, the measure most frequently mentioned by participants who had used the drug during the six months preceding the survey is reported. Data for participants who reported some other measure is not included.
None of the participants reported having used DMT during the six months preceding the survey.
[a] A 'bulb' of nitrous oxide refers to the small canister in which the gas is sold legally in supermarkets for insertion into an appliance used for whipping cream.

3.3.3. Poly-drug Use - Key Informant Reports

Ecstasy user participant reports about patterns of poly-drug use were largely consistent with reports from key informants, who reported a high rate and frequency of amphetamine and cannabis use; a high rate and low frequency of LSD, cocaine, and benzodiazepine use; and a low rate and frequency of heroin use among the ecstasy users with whom they had frequent contact. Ten of the 15 ecstasy key informants were confident in reporting certain parameters of ecstasy users' use of amphetamines. Typically, concurrent amphetamine and MDMA users were reported to commence the evening with amphetamine use, and perhaps a few alcoholic drinks and/or some cannabis. Administration of ecstasy was reported to be timed so that effect onset coincided with the main event of the night's "entertainment". Many users were reported to "top up" with amphetamines in order to prolong the effects of ecstasy once the peak effects had started to diminish, and to use ecstasy and/or amphetamines later in the evening, and sometimes ecstasy at the "recovery party" (the next day). Cannabis use was also confirmed by key informants, whose reports were largely consistent with user's responses in suggesting that between 40% and 100% (*M*=84, n=11) of the users known to them used cannabis to come down from ecstasy, and that between 10% and 90% (*M*=42%, n=9) used cannabis daily.

Key informants mostly reported low levels of alcohol use among ecstasy users, although alcohol use was reported as more prevalent among novice ecstasy users. In contrast to the reports from ecstasy users, none of the key informants reported alcohol use to come down from ecstasy. Eight key informants reported that between 10% and 60% of the users known to them used benzodiazepines on certain occasions to come down from intensive party drug use, although none reported use of any more than five tablets at a time. Six key informants reported contact with ecstasy users who occasionally used heroin to come down from intensive periods of party drug use, although that behaviour was confined to between

1% and 15% of the total number of ecstasy users known to those key informants. Heroin use was mostly reported among ecstasy users with more intensive patterns of poly-drug use, usually including IV amphetamine use.

Several key informants commented that cocaine use was currently more prevalent among the party drug using population than the IDU population in Brisbane. While key informant reports suggested that almost all ecstasy users would have tried LSD at some stage, several key informants working in the rave industry were confident and consistent in reporting that patterns of ecstasy, amphetamine, and LSD use varied depending upon the nature of the event that was being attended. Specifically, users attending "hardcore" events ("high energy" rave parties) were reported as more likely to use amphetamines than ecstasy; users at dance party events were described as likely to use ecstasy, or both amphetamine and ecstasy; whereas users attending "trance" events (usually outdoor events called "doofs") were described as more likely to use ecstasy and LSD (a poly-drug use pattern referred to as "candy-flipping"). Three key informants suggested that increased use of LSD at the latter events was attributable to the fact that users felt more comfortable with hallucinating in those environments (as opposed to a rave or dance party held indoors). Several key informants reported that LSD, perhaps in light of its comparatively low cost and long half-life, was becoming more prevalent in the Brisbane party-drugs scene. While amyl nitrate was reported to be used on the dance floor at certain events, several key informants noted that its most common use is by homosexual men during sex.

3.4. Price, Purity, and Availability of Party Drugs in Brisbane

3.4.1. Ecstasy

The majority of ecstasy user participants were confident in reporting the current price, purity, and availability of ecstasy in Brisbane, as well as changes that may have occurred in those aspects of the ecstasy market during the six months preceding the survey. Ecstasy user participants' responses to questions about trends in the ecstasy market in Brisbane are summarised in table 3.4.1.

3.4.1.1. Price of Ecstasy in Brisbane, 2000

As indicated in table 3.4.1, ecstasy user participants reported paying between $20.00 and $100.00 for a single tablet of ecstasy during the latter half of 2000 in Brisbane, although only four participants reported a maximum price above $60.00. The mean price was approximately $42.00, and the most commonly reported purchase price for a single ecstasy tablet was $40.00. There was negligible difference in the price of tablets and capsules, although relatively few (n=15) participants reported prices in respect of the latter form. Ecstasy prices reported by key informants were fairly consistent with those provided by ecstasy user participants. The price of a single ecstasy tablet was reported to vary between $25.00 and $60.00, and the median price was $45.00 (n=15). Reports from both ecstasy users and key informants confirmed that the price of a single ecstasy tablet or capsule rarely exceeds $50.00 provided it is purchased somewhere other than at an event or club.

A minority of participants were confident in reporting prices of bulk purchases of ecstasy. One ecstasy user participant reported that 200 tablets could be purchased @ $15.00 each, and another reported that the price for purchases of 30 or more tablets varied between $25.00 and $30.00 per tablet. The reports of five key informants suggested that 100 ecstasy tablets could be purchased for between $20.00 and $40.00 per tablet, with four of these responses suggesting $30.00 per tablet. One key informant reported knowledge of a purchase

of 1000 ecstasy tablets @ $27.00 each. Varying quality would appear the most likely explanation for disparities in the prices reported for purchases of bulk ecstasy.

Table 3.4.1. Price, Purity, and Availability of Ecstasy in Brisbane, 2000.

Current Price ($)	$	*SD*	Min-Max
Mean Price	41.9	(6.8)	20-100
Mean Lowest Price	34.2	(5.5)	20-50
Mean Maximum Price	53	(12)	30-100
Price Change Last Six Months	n		%
Increased	2		4
Stable	29		58
Decreased	14		28
Fluctuating	5		10
Current Purity	n		%
High	17		34
Medium	12		24
Low	2		4
Fluctuating	18		36
Don't Know	1		2
Purity Change Last Six Months	n		%
Increased	8		16
Stable	16		32
Decreased	7		14
Fluctuating	18		36
Don't Know	1		2
Availability	n		%
Very Easy	26		52
Easy	10		20
Moderately Easy	10		20
Difficult	3		6
Very Difficult	1		2
Availability Change Last Six Months	n		%
More Difficult	4		8
Stable	28		56
Easier	15		30
Fluctuating	3		6

The majority of ecstasy user participants reported that the price of ecstasy had remained stable during the six months preceding the survey, although reports of a price decrease (n=14, 28%) outnumbered those suggesting an increase (n=2, 4%). Key informants were almost equally divided about whether the price of ecstasy had decreased (n=7) or remained stable (n=6) during the six months preceding the survey. One key informant reported fluctuating prices during that period, and the remaining key informant was not confident in reporting about changes in the price of ecstasy.

3.4.1.2. Purity of Ecstasy in Queensland, 2000

As reported in table 3.4.1, the majority (n=35, 70%) of ecstasy user participants rated the purity of ecstasy in Brisbane as either fluctuating (n=18, 36%), or high (n=17,34%). Several factors may account for the relatively high prevalence of reports of fluctuating ecstasy purity. Firstly, five key informants suggested that approximately 5% of pills have minimal, if any, psycho-active effect. While it might be that a small minority of the tablets sold as ecstasy in Brisbane have negligible psycho-active effect, a recent publication by the ABCI (2000) suggests that a sizeable, although unknown proportion of those pills are psycho-active and yet contain nil MDMA. According to sources at the FCS-QHSS (personal communication, March, 2001), the majority of tablets that are seized by law enforcement officers in Queensland contain methamphetamine, and presence of MDMA in those tablets was described as "the exception rather than the rule". While the majority of the methamphetamine tablets analysed in Queensland during 2000 were reported to be cut with inert substances, a small percentage were found to be impregnated with minute particles of LSD. Across Australia as a whole, forensic analyses have also revealed the presence of benzodiazepines, caffeine, agricultural chemicals, heroin, and cocaine within methamphetamine tablets that are presumably sold as ecstasy (ABCI, 2001). Moreover, in their most recent publication, the ABCI (2001) confirmed a "*continuing trend of tablets containing ketamine and methylamphetamine being sold as MDMA*", presumably because "*…the two drugs together produce effects similar to those produced by MDMA, and are easier to make..*" (p. 44).

Viewed in composite, data collected in this study suggests that the purity of pills and capsules that are sold as ecstasy varies widely; that a large proportion of the tablets sold as ecstasy comprise methamphetamine tablets, sometimes mixed with other substances such as LSD or ketamine; and that only a minority of those tablets contain MDMA.

Uncertainty about the MDMA content of the various tablets that are sold as ecstasy was reported to influence users to seek out certain "brands" of pills with known quality (as denoted by their insignia - e.g., green mitsubishi; alien, mercedes benz etc), rather than experiment with a novel brand. It is common knowledge among users and key informants, however, that producers often replicate existing insignia that gain a good reputation among users.

One ecstasy key informant reported recent contact with a small number of users who were using DXM (dextromethorphan), a common ingredient of cough suppressant medicine, as a party drug. Evidence to suggest prevalence of DXM pills, which may potentially be sold as ecstasy, is especially concerning given the ABCI (2000) report that simultaneous use of DXM and MDMA may be fatal.

ABCI Ecstasy Purity Data for Queensland 1998-99.

ABCI purity data details the minimum, maximum, and median purity level of a subset of the MDMA (3,4-methylenedioxymethylamphetamine); MDEA (3,4- methylenedioxy-N-ethylamphetamine; MDA (3,4-methylenedioxyamphetamine); and PMA (Paramethoxyamphetamine) seizures made in Queensland during the 1998-99 financial year. Separate data were provided for seizures made by the Australian Federal Police (AFP) and seizures made by the Queensland Police Service (QPS).

The median purity of the 128 ecstasy[5] seizures made by Queensland and Federal law enforcement officers in Queensland during the 1998-99 financial year was 32.8% (min=1.2%, max=78.1%). This was very similar to the median purity level of Queensland seizures in previous years (31% in 1997-98; 34% in 1996-97) as well as those seizures made in other Australian states and territories that distinguish between ecstasy and amphetamines when reporting purity data. The median purity of AFP seizures in Queensland in 1998-99 (30%) was comparable, in fact, marginally lower than seizures made by QPS operatives. Given the majority of AFP seizures occur at importation level, they might be expected to comprise larger volumes of higher purity ecstasy than seizures made by the QPS. Although based upon a relatively small number of observations, ABCI purity data indicating minimal difference in the purity of AFP and QPS ecstasy seizures might be interpreted as tentative evidence that imported ecstasy tablets reach Brisbane consumers without a significant amount of purity dilution.

3.4.1.3. Availability of Ecstasy in Brisbane, 2000

The majority (n=36, 72%) of ecstasy user participants rated ecstasy as either very easy or easy to obtain in Brisbane. Almost one third (n=15, 30%) reported that the substance had become easier rather than more difficult (n=8, 16%) to obtain during the six months preceding the survey. Only four participants rated ecstasy as either difficult (n=3, 6%), or very difficult (n=1, 2%) to obtain. All key informants rated ecstasy as either very easy (n=11) or easy (n=4) to obtain in Brisbane.

3.4.1.4. Importation of Ecstasy into Australia

According to a recent publication by the ABCI (2000), Australian Customs made 96 MDMA detections during 1998-99. This was lower than the number of detections in 1997-98 (n=164); 1996-97 (n=169); and 1995-96 (n=119). The majority (69%) of 1998-99 MDMA interceptions were parcels sent by post, although the amount of MDMA intercepted in parcels was less than that detected in the comparatively small number of interceptions made at airports. In detail, 38% of the MDMA intercepted by Australian Customs during 1998-99 were being carried by air passengers on their person; a further 25% was found in air passenger's stored luggage; and 13% was discovered in air cargo. MDMA detected in parcel post accounted for 24% of the total amount of MDMA seized by Australian Customs in 1998-99.

Since at least 1995, the majority of MDMA intercepted by Australian Customs Service has originated in the UK, the Netherlands, Belgium, Germany, and to a lesser extent but increasingly during the recent two years, the USA and Indonesia (ABCI, 2000). Indonesia, however, is not renowned for its production of MDMA, and the ABCI report suggests that it might be a "transhipment" location for imports headed from Europe to Australia (p.53).

3.4.1.5. Sources of Supply; Purchase Locations; and Methods of Payment for Ecstasy in Brisbane, 2000

The majority of ecstasy user participants reported usually acquiring ecstasy from people who they regarded as "friends" (n=47, 94%), and less commonly from "dealers" (n=28, 56%) and acquaintances (n=10, 20%). Some users reported occasionally purchasing ecstasy at their own residence (n=20, 40%), although purchases most commonly occurred at a "friends home" (n=40, 80%) or a "dealers home" (n=23, 46%). A minority of participants

[5] Defined as potentially including MDMA; MDEA; MDA; and PMA.

reported usually purchasing ecstasy at raves (n=8, 16%); dance parties (n=9, 18%); or nightclubs (n=7, 14%). One user reported purchasing ecstasy over the Internet.

Ecstasy user participants reported a variety of methods that they had used in order to pay for ecstasy during the six months preceding the survey. The majority (n=43, 86%) reported paying for ecstasy with money earned through paid employment; half (50%) reported receiving ecstasy as a gift from friends; while other methods included dealing drugs (n=21, 42%); credit from dealers (n=14, 28%); borrowing money from friends (n=12, 24%); bartering goods (n=9, 18%); unemployment benefits (n=9, 18%); Austudy (n=7, 14%); money from parents (n=6, 12%); and pawning goods (n=3, 6%). One participant had committed a fraud to pay for ecstasy, and one female participant reported paying for ecstasy with sex. None of the ecstasy user participants reported committing a property crime to pay for ecstasy during the six months preceding the survey. With the exception that none of the older uses had used money from their parents to purchase ecstasy, (as 25% of younger participants had), there were negligible age or gender differences in the various methods used to pay for ecstasy.

3.4.2. Changes in the Price and Availability of Ecstasy in Brisbane, 1997-2000.

Responses concerning the current price and availability of ecstasy in Brisbane from participants in the current study are compared with those from participants in the 1997 ecstasy user survey in table 3.4.2.

Table 3.4.2. Price and Availability of Ecstasy in Brisbane in 2000 and in 1997.

	Present Sample (n=50)	1997 Sample (n=60)
Mean price per tablet ($)	$42	$52
Min-Max price per tablet	$20-100	$30-80
price stable (%)	58	38
price decreased (%)	28	27
‘very easy’ to obtain (%)	52	57
‘easy’ to obtain (%)	20	27
availability stable (%)	56	42
availability increased (%)	30	25
score from friends (%)	94	93
score from work colleagues (%)	6	8
score from dealers (%)	56	70
score from acquaintances (%)	20	23
score from unknown people (%)	4	12
score at own home (%)	40	43
score at dealer’s home (%)	46	45

Table 3.4.2 indicates that, on average, prices for a single tablet of ecstasy reported by users in the current study were approximately $10.00 less than the prices reported by Brisbane users in the 1997 Australian multi-site ecstasy user survey (Topp et al., 1999). Despite differences between the two samples, and less frequent use of ecstasy by the 1997 sample, reports about the availability; sources of supply; and purchase locations made by users interviewed in the current study were generally consistent with those made by participants in the 1997 survey.

3.4.3. Price, Purity, and Availability of Party Drugs Other than Ecstasy in Brisbane

3.4.3.1. Price

Prices of various party drugs other than ecstasy as reported by ecstasy user participants are detailed in table 3.4.3, along with equivalent data from the 1997 survey.

Table 3.4.3. Price of Other Party Drugs in Brisbane in 2000 and 1997.

Drug	2000 Sample			1997 Sample		
	$	Min-Max	n	$	Min-Max	n
LSD						
Median price per tab	**15**	6-30	29	**20**	3-30	47
Median lowest price	**10**	2-20	31	**10**	1-25	46
Median highest price	**20**	12-30	31	**25**	5-50	46
Amphetamine (Powder)						
Median Price per gram	**60**	40-200	14			
Median lowest price	**50**	35-200	10	No comparable data[1]		
Median highest price	**100**	40-250	10			
(Meth)amphetamine (Crystal "base").						
Median price (per point*)	**30**	15-80	31			
Median lowest price	**25**	15-45	21	No comparable data		
Median highest price	**40**	25-80	21			
Median price per gram	**200**	60-300	30	No comparable data		
Ice						
Median price (per point*)	**35**	20-40	6	No comparable data		
Median price per gram	**300**	200-450	6			
MDA						
Median price (per cap)	**40**	35-60	10	**60**	40-70	7
Median lowest price	**40**	35-50	5	**42.5**	25-60	6
Median highest price	**50**	50-80	5	**70**	45-80	6
Ketamine[2]						
Pill	35	15-50	3	No comparable data		
Gram	50	-	1	70	60-120	3

* a point was reported to = 0.1 grams.

[1] questions about the price of amphetamines were not included in the 1997 study.

[2] data reported for completeness despite being unreliable due to small numbers.

As indicated in table 3.4.3, the median price for a tab of LSD reported by participants in the current survey was $5.00 cheaper than that reported by participants in the Brisbane component of the multi-site ecstasy user survey conducted in 1997 (Topp et al., 1999). One participant reported that LSD tabs could be purchased for $2.00 each when purchased in bulk (100+). Although data for MDA suggest a price decrease, there are insufficient responses for definitive conclusions. The median price for a point of crystal methamphetamine "base" reported by this sample was lower than the equivalent value reported by IDU participants recruited into the main year 2000 Queensland IDRS project (McAllister, 2001) (median price

=$50.00; min=$20.00, max=$50.00), although prices reported by ecstasy user participants were more varied. Descriptions of "base" also varied widely, and there were too few responses to establish any consistent association between form and price, except to say that generally, powdered forms cost less than liquid-crystalline/dry crystalline forms. Details about the various forms and syntheses of amphetamine in Brisbane, as well as the amphetamine market in Queensland have recently been published in two separate reports (McAllister, 2001; QCC, 2000). Although there were no comparable data from 1997 ecstasy user participants, the results from the main 2000 Queensland IDRS report indicate that the price of amphetamine has decreased in Brisbane during the past few years. All participants who reported prices for "ice" described the substance as a white or clear crystal form of methamphetamine. Although limited in number, prices for that form of methamphetamine hydrochloride, which, according to ABCI reports (1999; 2000), is referred to as "shabu" in the Philippines, were generally higher than for "base". In the Philippines, the rate of smoking of "ice" or "shabu" is reported to exceed that of cannabis (ABCI, 2000). According to the ABCI (2000), large amounts of "ice" are produced in China, Taiwan, and the Philippines. By contrast, Burma is a large producer of methamphetamine tablets.

Ecstasy user participants' responses to questions about the current purity and availability of various illicit substances, and changes in the price, purity and availability of those substances during the six months preceding the survey are detailed in figures 3.4.1 to 3.4.5. The number of participants who were confident in reporting the same information about ketamine, GHB, and ice was too small to provide reliable data.

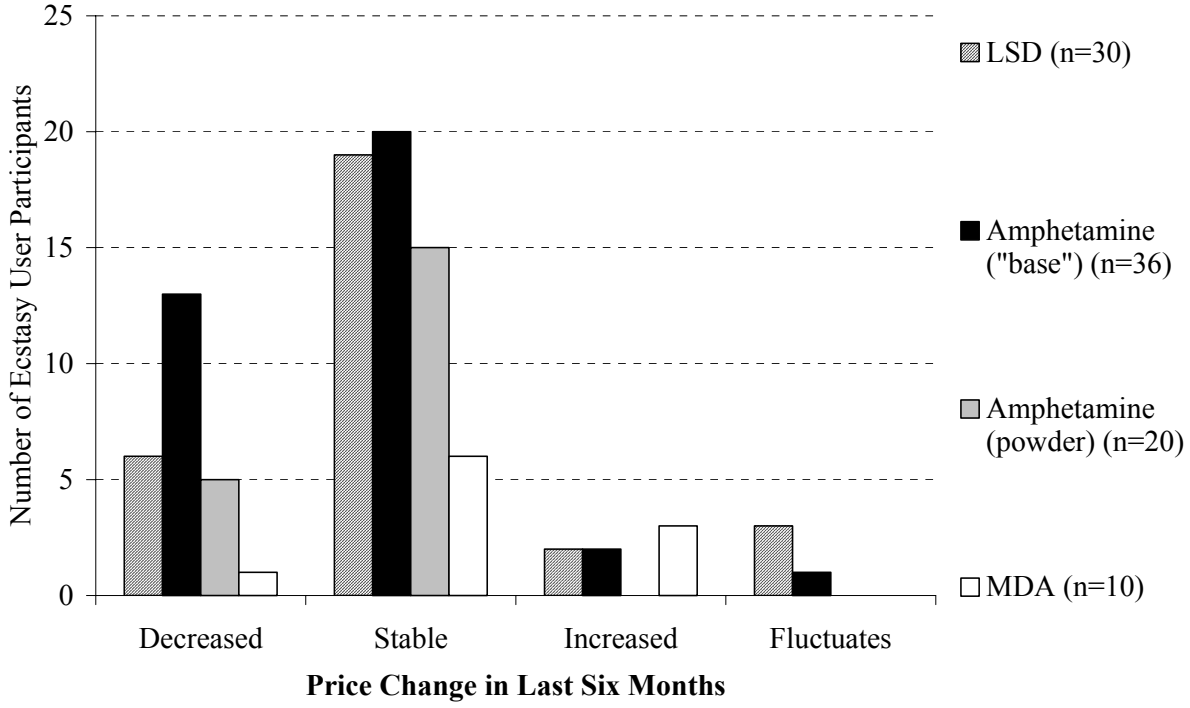

Figure 3.4.1. Ecstasy User Participant Subjective Reports About Changes in the Price of Various Party Drugs Other Than Ecstasy During the Six Months Preceding the Survey.

Although the majority of definitive responses suggested that the price of LSD, amphetamine; and MDA had remained relatively stable during the six months preceding the survey, with the exception of MDA, responses suggesting a price decrease during that period

outnumbered those suggesting an increase. Overall, data summarised in table 3.4.3 and figure 3.4.1 provide support for the notion of a marginal decrease in the price of LSD and amphetamine in Brisbane during 2000. Evidence to suggest a decrease in the price of amphetamine in Brisbane during 2000 was also documented in the main year 2000 Queensland IDRS (McAllister, 2001).

3.4.3.2. Purity

Ecstasy user participants' ratings of the current purity of various party drugs other than ecstasy during the latter half of 2000 are presented in figure 3.4.2. Reports concerning changes in the purity of those substances during the six months preceding the survey are presented in figure 3.4.3.

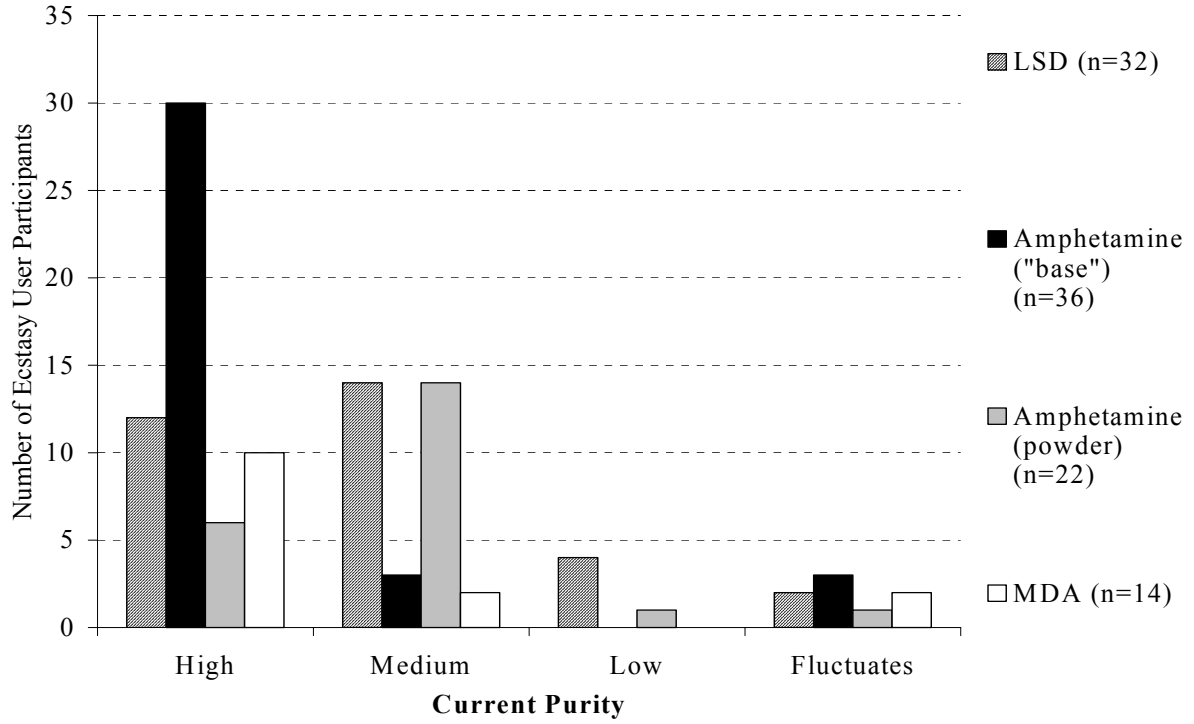

Figure 3.4.2. Ecstasy User Participant Subjective Reports About the Current Purity Level of Various Party Drugs Other Than Ecstasy During the Six Months Preceding the Survey.

As illustrated in figure 3.4.2, the majority of ecstasy user participants in the current study who were confident in reporting purity levels of other party drugs rated the current purity of crystalline forms of methamphetamine ('base") as high, whereas the most common purity rating for powdered forms of that substance was medium. As reported in the main year 2000 Queensland IDRS (McAllister, 2001), this finding may be related to the fact that powdered forms of methamphetamine are often derived by diluting crystalline forms of the substance with agents such as glucose.

Figure 3.4.2 also indicates that the majority of ecstasy user participants rated the current purity of LSD and MDA as either medium or high. Whereas fluctuating purity was the most common response to questions about the current purity of ecstasy and changes in the purity of that substance during the six months preceding the survey (see table 3.4.1, p. 14), relatively few participants reported the purity of LSD; amphetamine; or MDA as fluctuating.

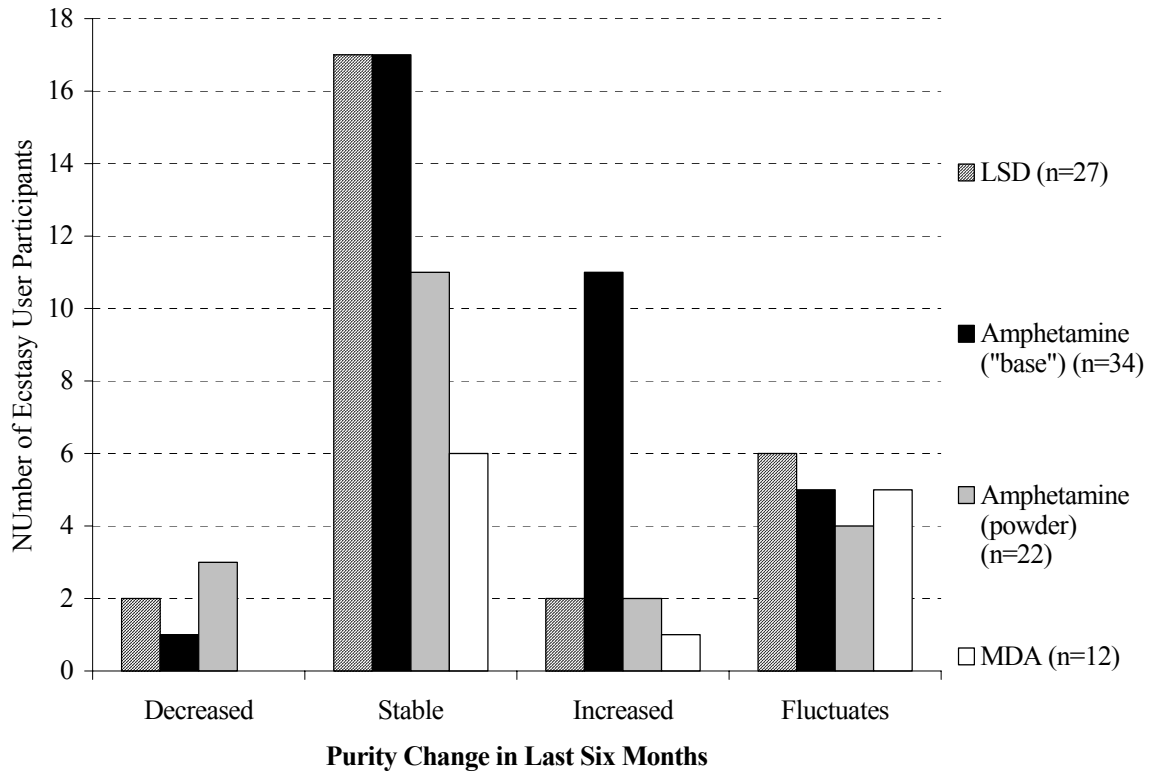

Figure 3.4.3. Ecstasy User Participant Subjective Reports About Changes in the Purity of Various Party Drugs Other Than Ecstasy During the Six Months Preceding the Survey.

Ecstasy user participant reports indicated that the purity of the other party drugs featured in figure 3.4.3 had remained relatively stable during 2000. Consistent with findings from the main year 2000 Queensland IDRS report (McAllister, 2000), responses suggesting the purity of methamphetamine "base" had increased in Brisbane during 2000 outnumbered those suggesting a decrease. Powdered amphetamine, however, were more likely to be rated as having fluctuated in purity during 2000 than crystalline forms of that substance ('base"). While ecstasy user responses are consistent with the notion that crystalline forms of methamphetamine ("base") are generally higher in purity than powdered forms of the substance, it is important to note that some recent drug seizures in Queensland have netted some very high purity powdered methamphetamine.

3.4.3.3. Availability

Ecstasy user participant reports about the current availability of various party drugs other than ecstasy, and changes that may have occurred in the availability of those substances during the six months preceding the survey, are detailed separately in figures 3.4.4 and 3.4.5.

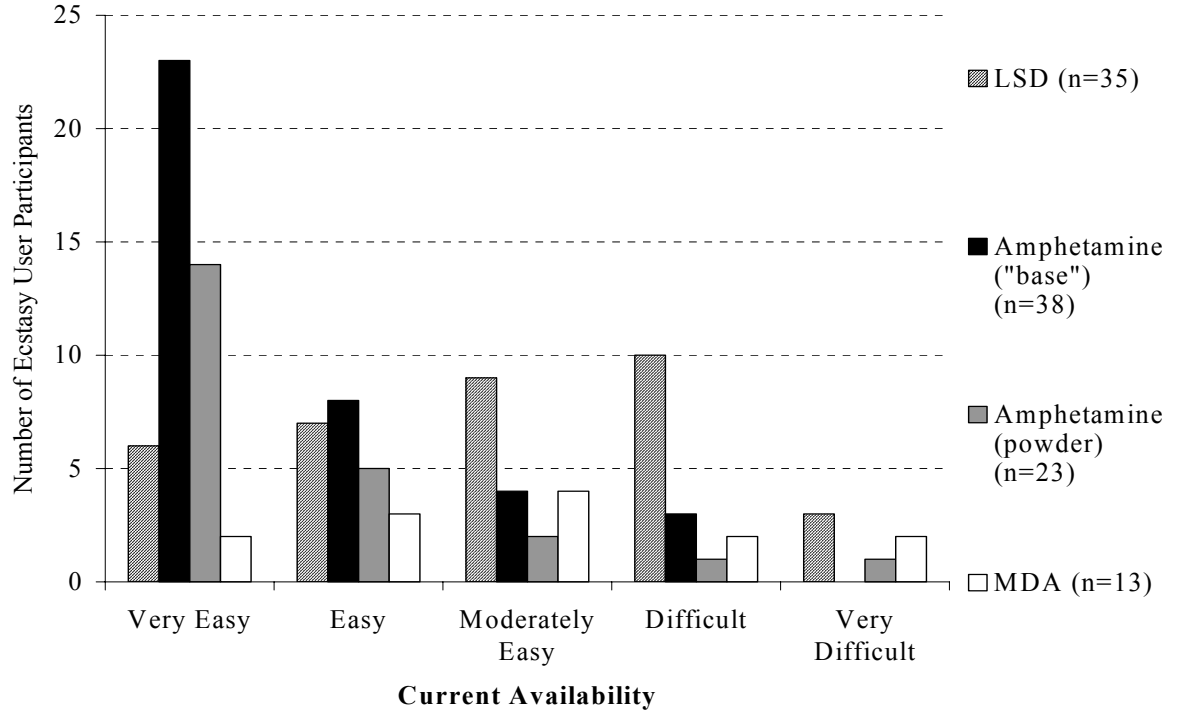

Figure 3.4.4. Ecstasy User Participant Subjective Reports About the Current Availability of Various Party Drugs Other Than Ecstasy in Brisbane 2000.

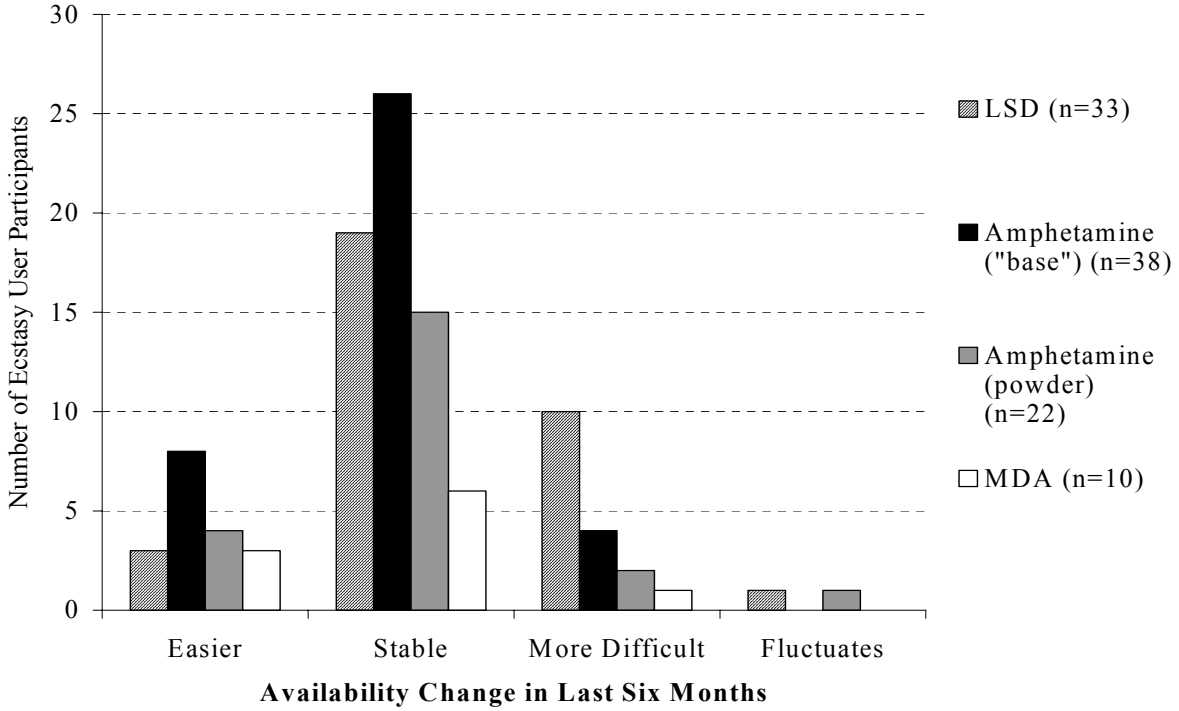

Figure 3.4.5. Ecstasy User Participant Subjective Reports About Changes in the Availability of Various Party Drugs Other Than Ecstasy in Brisbane During the Six Months Preceding the Survey.

As indicated in figure 3.4.4, the majority of definitive responses by ecstasy user participants indicated that amphetamine was either very easy or easy to obtain in Brisbane during the latter half of 2000. The equivalent data for LSD and MDA suggest that party drug users have greater difficulty in procuring those particular substances. As noted in figure 3.4.5, the majority of definitive responses indicated negligible change in the availability of LSD, amphetamines, and MDA during the six months preceding the survey.

3.5. Physical and Psychological Side Effects of Ecstasy Use

3.5.1. Ecstasy User Participants

Ecstasy user participants were asked whether they had experienced a range of physical and psychological symptoms that were attributable at least in part to ecstasy use during the six months preceding the survey. Those who had experienced a symptom reported the duration of the symptom, and whether they attributed the symptom solely to the use of ecstasy, or whether other factors (including poly-drug use or environmental factors) had also been involved. Responses to those questions are summarised in tables 3.5.1 (physical symptoms) and 3.5.2 (psychological symptoms).

Table 3.5.1. Physical Symptoms Experienced Through Ecstasy Use as Reported by Ecstasy User Participants (n=50).

Symptom	Experienced in Last 6 Months		Median Length of Worst Case*	Solely Related To Use of Ecstasy*	
		(%)		n	(%)
Blurred Vision	37	74	2 hours	32	87
Profuse Sweating	37	74	4 hours	24	65
Trouble Sleeping	34	68	12 hours	21	62
Loss of Energy	33	66	2 days	18	55
Tremors or Shakes	30	60	2 hours	18	60
Muscular Aches	29	58	2 days	12	41
Numbness or Tingling	28	56	1 hour	19	68
Weight Loss	27	54	2 days	14	52
Hot or Cold Flushes	26	52	2 hours	21	81
Heart Palpitations	25	50	1 hour	14	56
Headaches	22	44	3 hours	11	50
Teeth Problems	21	42	1 day	8	38
Joint Pains or Stiffness	19	38	2 days	10	53
Shortness of Breath	19	38	1 hour	11	58
Vomiting	19	38	5 mins	16	84
Dizziness	18	36	1 hour	13	72
Stomach Pains	18	36	1.5 hours	12	67
Inability to Urinate	16	32	4.5 hours	12	75
Chest Pains	8	16	45 mins	0	0
Fainting or Passing Out	4	8	63 mins[a]	3	75
Fits or Seizures	1	2	2 secs	1	100

* among those reporting that symptom

[a] these four raw scores were 5 mins (x2) and 120 mins (x2).

As noted in table 3.5.1, the physical symptoms experienced by at least half of the ecstasy user participants when using ecstasy included: blurred vision; profuse sweating; trouble sleeping; loss of energy; tremors or shakes; muscular aches; weight loss; numbness or tingling; hot or cold flushes; and heart palpitations. Moreover, with the exception of muscular aches, the majority of ecstasy user participants who had experienced those symptoms proposed that ecstasy was the sole cause of that condition. Two female participants reported long term and ongoing weight-related problems due to their use of ecstasy.

Although eight (16%) participants reported chest pains either while under the effects of ecstasy or after using it, none proposed that ecstasy was the exclusive cause of pain. Teeth problems had been experienced by 42% of participants during the six months preceding the survey, although only a minority attributed that condition solely to the effects of ecstasy.

On average, ecstasy user participants reported having experienced 9.4 of the 21 physical side-effects listed in table 3.5.1 at least once during the six months preceding the survey (*SD*=4.13; min=0, max=19). Further analyses revealed that, on average, females; younger users (aged 23 years or younger); participants who had binged on party drugs for more than 48 hours during the six months preceding the survey; participants who engaged in longer binges (>2 days); and participants who had ever injected an illicit substance reported a greater number of physical symptoms than their respective comparison groups, although mean differences failed to achieve conventional levels of statistical significance. The sensitivity of these analyses, however, is limited by the small sample size.

Table 3.5.2. Psychological Symptoms Experienced Through Ecstasy Use as Reported by Ecstasy User Participants (n=50).

Symptom	Experienced in Last 6 Months		Median Length of Worst Case*	Solely Related To Use of Ecstasy*	
	n	(%)		n	(%)
Irritability	32	64	2 days	16	50
Depression	31	62	2 days	20	65
Confusion	28	56	1 day	16	57
Anxiety	25	50	2 hours	17	68
Visual Hallucinations	25	50	2.5 hours	19	76
Blackout or Memory Lapse	22	44	3 hours	18	82
Auditory Hallucinations	22	44	2 hours	18	82
Paranoia	20	40	4.5 hours	12	60
Loss of Sex Urge	13	26	24 hours	12	92
Flashbacks	9	18	7.5 mins	8	89
Panic Attacks	6	12	2.5 hours	5	83
Suicidal Thoughts	6	12	3 hours	5	83
Violent Behaviour	5	10	30 mins	5	100
Attempted Suicide	1	2	-	0	0

* among those reporting that symptom

[a] these four raw scores were 5 mins (x2) and 120 mins (x2).

Table 3.5.2 indicates that at least half of the ecstasy user participants reported feeling irritable, depressed and confused for between one and two days (on average) after using ecstasy. Anxiety, memory lapses, auditory hallucinations, and feelings of paranoia lasting for

several hours were experienced by at least 40% of participants, and 13 (26%) of the ecstasy user participants (10 [32%] males and three [16%] females) reported a loss of sex urge for approximately one day after using ecstasy. Six (12%) participants had experienced suicidal thoughts either while under the effects of ecstasy or after using the substance, and five of those participants attributed those ideations solely to ecstasy use. One participant reported that ecstasy use was one of several factors precipitating a recent suicide attempt. Five (10%) participants (three males and two females) reported episodes of violent behaviour that they believed was directly attributable to the use of ecstasy (or at least, pills that were sold as ecstasy). Further investigation revealed that only one of those participants reported regular use of amphetamines in conjunction with ecstasy. Although the frequency with which symptoms were experienced relative to the total number of sessions of use was not indexed, it is possible that participants reporting violent behaviour may have ingested a substance other than MDMA, (e.g., methamphetamine tablets). At least half of the participants who had experienced any of the psychological symptoms listed in table 3.5.2 proposed that ecstasy was the sole cause of that experience.

On average, ecstasy user participants reported having experienced 4.9 of the 14 psychological side-effects listed in table 3.5.2 during the six months preceding the survey (SD=2.62; min=1, max=11). Although gender differences in the average number of psychological symptoms experienced were negligible, users aged 24 years and above (n=26) experienced significantly fewer psychological symptoms (M=3.8, SD=2.29) than users aged 23 years or less (n=24) (M=6.08, SD=2.48), $t(48)=3.36$, $p=0.002$. Further analyses revealed that, on average, participants who had binged on party drugs for more than 48 hours during the six months preceding the survey; participants who engaged in longer binges (>2 days); and participants who had ever injected an illicit substance reported a greater number of psychological symptoms than their respective comparison groups. As was the case for physical symptoms, the results of these analyses failed to achieve conventional levels of statistical significance, most probably due to the comparatively small sample size.

3.5.2. Key Informant Reports

Key informants reported an array of adverse physical and psychological consequences of ecstasy use. A large proportion of the users known to key informants were reported to experience feelings of paranoia while using the substance, and to suffer from depression and anxiety in the days immediately following ecstasy/party drug use. Nutritional problems, particularly among female ecstasy users, were also commonly reported. Key informants working as outreach workers at raves and dance parties (e.t.c.), expressed concern that many users lose their awareness of the need for hydration when under the influence of ecstasy. However, the same respondents commented that an increasing number of users were exhibiting more responsible ecstasy usage behaviours, including increased nutritional intake prior to use, more responsible levels of use, and planning of the recovery period.

Two key informants reported increased contact with novice IV ecstasy users who had with infected injecting sites. Both respondents suggested that the majority of novice IV ecstasy users were unaware of the need to filter the substance several times prior to injection, and of the related health risks (i.e., risk of infection, and other more serious and chronic injection related problems, such as endocarditis). As with novice IV users, several key informants reported low levels of awareness of HCV (Hepatitis C Virus) issues among IV ecstasy users generally. Ecstasy use and/or post amphetamine depression was reported by two key informants as the cause of what they perceived as increased promiscuity and unsafe sexual practices among gay male ecstasy users.

Several key informants commented that whereas occasional ecstasy use had a positive effect upon social interactions, regular weekly use of ecstasy was, for many users, synonymous with personality change, apathy, and social dysfunction. Five key informants had noted an increase in the number of ecstasy users experiencing relationship or social problems during the six months preceding the survey, and three key informants reported increased contact with users whose use of ecstasy had led to occupational or study-related problems. Relatively few of the users known to key informants were reported to be experiencing financial or legal/police problems as a result of their ecstasy use. Reports did suggest however, that there had been an increase in the level of violence and aggression within the rave/dance party scene during the recent past. While a minority of key informants suggested this was attributable to the recent influx of "mainstream" people into the scene, most proposed increased use of amphetamines as the causal factor.

3.6. Other Ecstasy Related Problems

3.6.1. Ecstasy User Participant Reports

Table 3.6.1 summarises the number and percentage of male and female ecstasy user participants who reported having experienced various ecstasy-related problems during the six months preceding the survey.

Table 3.6.1. Number and Percentage of Ecstasy User Participants who Experienced Various Ecstasy-Related Problems During the Six Months Preceding the Survey (n=50).

	Males (n=31)		Females (n=19)		Total (n=50)	
	n	%	n	%	n	%
Occupational or Study Problems	13	42	13	68	26	52
Relationship or Social Problems	12	39	7	37	19	38
Financial Problems	8	26	4	21	12	24
Legal Police Problems	1	3	0	0	1	2

As indicated in table 3.6.1, approximately half (52%) of the participants proposed ecstasy use as a factor that contributed to an occupational or study related problem that had occurred during the six months preceding the survey. The nature of these problems were described as trouble concentrating (n=4, 15%); reduced performance (n=4, 15%); lack of motivation (n=9, 35%); taking sick leave or not attending classes (n=6, 23%); or being dismissed from or quitting a job/inability to find employment (n=3, 12%).

Nineteen (38%) ecstasy user participants reported having experienced a relationship or social problem that they attributed to ecstasy use during the six months preceding the survey. The majority of these problems involved arguments (n=9, 47%) or mistrust/anxiety (n=4, 21%). However, four (21%) identified ecstasy as a factor that was at least to some extent causal to the dissolution of a relationship, and one participant reported that his ecstasy use had led to violence in his relationship. Financial problems related to ecstasy use had been experienced by approximately one quarter (24%) of the current ecstasy user sample. Reports of the most serious financial problem experienced during the six months preceding the survey as a result of ecstasy use include: being in debt (n=6); having insufficient money for either food or rent (n=3); and a lack of money for recreation/luxuries (n=3). Only one participant reported recent legal problems that were associated with ecstasy use, which involved being arrested for possession of stolen goods that were provided to him in exchange for ecstasy.

There were no significant gender differences in reporting various ecstasy related problems during the six months preceding the survey, although female participants (68%) were slightly, but not significantly, more likely to report ecstasy related work or study problems than male participants (42%) χ^2 (1)=3.31, p=0.09. Younger participants (≤23 years), however, were more likely to report ecstasy related relationship problems (54%) than participants aged 24 years or above (23%), χ^2 (1)=5.12, p=0.02. Further analyses revealed that participants who had ever injected an illicit substance were no more likely to report one of the ecstasy related problems listed in table 3.6.1 than those who had not. The same was true for participants who had binged on party drugs continuously for more than 48 hours during the six months preceding the survey.

3.7. Criminal Behaviour

3.7.1. Ecstasy User Participant Reports

Approximately half of the male and female ecstasy user participants reported having sold an illicit substance at least once during the month preceding the survey (see table 3.7.1). Two (4%) participants reported selling drugs on a daily basis during that period; eight (16%) reported dealing at least weekly; and 15 (30%) reported dealing drugs less than once per week during that period. One participant reported having conducted a property crime, and one reported having conducted fraud. None of the participants reported committing a violent crime during the month preceding the survey. The four (8%) participants who had been arrested during the year preceding the survey had been charged with possession of an illicit substance (n=2); receiving stolen goods (n=1); and drink driving (n=1). Overall, with the exception of dealing and possession of an illicit substance, ecstasy user participants reported relatively minimal involvement in criminal activities.

Table 3.7.1. Male and Female Ecstasy User Participant Reports About their Criminal Activities During the Month Preceding the Survey.

Crime Committed in Preceding Month	Males (n=31)		Females (n=19)		Total (n=50)	
	n	%	n	%	n	%
Property Crime	1	3	0	0	1	2
Drug Dealing	16	52	9	47	25	50
Fraud	1	3	0	0	1	2
Violent Crime	0	0	0	0	0	0
Arrested in the Preceding Year	4	13	0	0	4	8

3.7.2. Key Informant Reports

Key informants confirmed that very few of the ecstasy users known to them engaged in criminal activities other than dealing and possession of an illicit substance. Three key informants, however, had noted an increase in conflict between users and dealers due to the fluctuating quality of certain pills sold as ecstasy. Four key informants reported knowledge of inert tablets being sold at raves for profit.

3.8. Law Enforcement Activity

3.8.1. ABCI Arrest Data

There were five MDMA consumer and 12 MDMA provider arrests made in Queensland during the 1998-99 financial year. By comparison, during the same period, there were 1279 amphetamine consumer and 518 amphetamine provider arrests, comprising a total of 1797 amphetamine related arrests in Queensland (ABCI, 2000). Although the overall number of both amphetamine and ecstasy related arrests was lower during the previous financial year, amphetamine related arrests outnumbered MDMA related arrests to a similar extent during that period (ABCI, 1999). None of the five MDMA laboratories that were detected in Australia during the 1998-99 financial year were based in Queensland (ABCI, 2000).

The total number of MDMA related arrests in Queensland in 1998-99, as a proportion of the total number of MDMA and amphetamine related arrests, was much lower in Queensland (17/1814 = <1%) than in New South Wales (401/2352 = 17%); Victoria (114/1028 = 11%); and Western Australia (66/695 = 9%). Hence, whereas the number of amphetamine consumer arrests in Queensland during 1998-99 (1279) was similar to NSW (1556), the number of MDMA consumer arrests in NSW (279) was much higher than in Queensland (5). Victoria, which recorded approximately half the number of amphetamine consumer arrests as Queensland in 1998-99, had 80 MDMA consumer arrests during the same period. These data suggest that less than 0.5% of the individuals arrested for possession of amphetamines in Queensland were also found in possession of MDMA.

Several factors might underlie the comparatively low rate of MDMA consumer arrests in Queensland during 1997-98 and 1998-99. Increased allocation of law enforcement resources to the detection of amphetamine consumers and (especially) producers during that period might underlie the reduced emphasis on MDMA detection. Inter-state differences in the classification of MDMA, or in the factors that determine whether a substance is analysed for its chemical content might also explain the relatively low rate of MDMA consumer and provider arrests in Queensland. Alternatively, it might be that in Queensland, methamphetamine tablets comprise a larger proportion of the tablets that are sold as ecstasy than is the case in NSW, Victoria, and Western Australia.

3.8.2. Ecstasy User Participant Reports

Ecstasy user participant reports about their perceptions of changes in law enforcement activity during the six months preceding the survey are detailed in table 3.8.1. Nineteen (38%) participants were not confident in reporting changes in police activity during that period. The most common definitive response indicated that police activity had remained stable during the six months preceding the survey, although responses indicating more activity outnumbered those suggesting a decrease. Forty-six (92%) ecstasy user participants reported that recent police activity had made no impact upon the ease with which they were able to acquire illicit substances during the six months preceding the survey. The majority (84%) reported negligible change in the number of their friends being arrested for possession of an illicit substance.

Reports of increased police presence (both undercover and uniform) at raves, clubs and recovery parties were common among ecstasy user participants. However, many participants added that dealers rather than users were the main targets of undercover police activity in the rave/dance party scene.

Table 3.8.1. Perceptions of Law Enforcement Activity Among Ecstasy User Participants (n=50).

Perception	n	%
Changes in Police Activity in Last Six Months		
Don't know	19	38
More activity	11	22
Stable	17	34
Less activity	3	6
More Difficult to Obtain Drugs		
Yes	4	8
No	46	92
Friends Arrested for Possession Recently		
Less	2	4
Stable	42	84
More	6	12

3.8.3. Key Informant Reports

Seven of the 15 ecstasy key informants were confident in reporting increased presence of undercover police at raves and dance parties during the six months preceding the survey, and several reported that users were generally aware of the risks associated with attempting to purchase ecstasy at those venues. Most key informants agreed that law enforcement agents were mostly interested in detecting dealers rather than users. In fact, three key informants reported that police investigating noise complaints at recent outdoor events demonstrated considerable tolerance when confronted with overt signs of drug use. High rates of functionality, low rates of violence, and the innocuous nature of people intoxicated with ecstasy were the main factors thought to underlie reported acts of police discretion.

3.9. Other Trends in the Use of Party Drugs in Brisbane, 2000

Toward the conclusion of the interview, ecstasy user participants were asked to report on any drug trends they had noticed during the six months preceding the survey. Eighty-two percent (n=41) of this sample perceived recent changes in the party drug scene in Brisbane.

The most consistently reported trend was an increase in the use of party drugs, and particularly the use of ecstasy (17 of the 41 participants). Importantly, participants reported that this increase applied across a broader context than previously observed: more people from a range of professions and socio-economic backgrounds using in a wider range of contexts (e.g., ecstasy use is no longer limited to raves and nightclubs, but at dinner parties). These participants reported that use of pills (primarily ecstasy, and to a lesser extent, amphetamine), is becoming more generalised, and "socially acceptable'. In addition, two participants reported a shift in the party drug "scene", such that use is no longer confined to the "The Valley", but has expanded into the CBD (city). Of concern were reports by a number of participants suggesting an increase in use by young people, particularly teenagers.

Another trend that was consistently reported by ecstasy user participants was an increase in poly-drug use. In particular, participants reported an increase in use of amphetamines, and several users reported increased ketamine use among gay male party drug users. The use of ecstasy on the morning after a night of amphetamine use was reported as an increasingly popular practice.

Several users reported that the purity of ecstasy in Queensland is inferior to that available elsewhere (within and outside Australia). Further, participants reported that ecstasy was often "bulked" with ketamine and/or "speed", and many users commented about using either "smacky" or "speedy" ecstasy tablets.

Participants commonly reported an increase in what they perceived as more "responsible" use of ecstasy and other party drugs. That is, among ecstasy users, there is a high awareness of the effects of these substances, and patterns of use are beginning to reflect this (e.g., users often consume vitamins to counteract the known side effects of ecstasy). Several users commented that while the media often presented politicians propagating "myths" about ecstasy tablets containing fragments of broken glass, there was a complete absence of accurate information about the substances that are typically contained within pills sold as ecstasy, and the harms that may be associated with ecstasy use. Finally, a number of users commented that it is often overlooked that there is far less violence in the rave/dance party scene than occurs in various mainstream clubs and pubs where the drug of choice for the majority of patrons is alcohol.

4.0. Summary and Conclusion

4.1. Summary of Trends in the Use of Party Drugs in Brisbane

The results of this study support the notion that the purposive sampling strategy (Kerlinger, 1986) was successful in providing access to a group of illicit drug users with detailed knowledge about the price, purity, availability, and use of a range of party drugs. There is also evidence that participants in the current study were sampled (albeit non-randomly) from a different population of drug users than that from which IDU were recruited into the main 2000 Queensland IDRS project (McAllister, 2001), and that participants in the current study had more detailed knowledge about party drug trends than participants in the main 2000 Queensland IDRS. For example, only 7% of the IDU recruited into the main 2000 Queensland IDRS had used ecstasy with sufficient frequency in the recent past to qualify for inclusion in the current study, and only 2% of those IDU nominated ecstasy as their drug of choice. Notwithstanding differences in nomenclature, by comparison, 52% of the current sample nominated ecstasy as their "favourite drug". Overall, these findings clearly illustrate the need to recruit different users to those in the main IDRS to effectively monitor party drug trends.

4.1.1. Demographic Characteristics and Patterns of Drug Use.

The findings from this study suggest that the majority of party drug users (defined in this study as individuals who regularly use pills and capsules that are sold as ecstasy), comprise relatively well educated and functional individuals aged in their late teens or twenties who are either working or engaged in tertiary studies. With the possible exception that ATSI may be under-represented in the party-drug using population, there would appear no grounds to suggest that party drug users vary markedly from the general population in terms of their ethnicity. The majority of ecstasy user participants reported paying for their drugs with money earned from paid employment, and with the exception of dealing and possessing illicit substances, very few reported engaging in criminal activities or having been arrested in the recent past.

In support of qualitative reports from both users and key informants, NDSHS (AIHW, 2000) data suggest that the proportion of the Queensland population who use ecstasy, although lower than in the rest of Australia, increased between 1995 and 1998. Data from the same survey also indicate a marked decrease in the age at which novice ecstasy users first used the substance between 1995 (24 years) and 1998 (21 years). Consistent with those findings, most user participants in the current study reported first having used ecstasy when in their late teens, and the majority of survey respondents were confident in reporting that the number of teenage ecstasy users had increased during the recent past. While it is certainly the case that the size of the rave/dance party scene in Brisbane increased considerably during the late 1990s, qualitative reports from key informants and users suggest that ecstasy use is not confined to people who frequent those venues and events.

Data collected in this study suggests that the majority of ecstasy users do not inject the substance, and that those who do are relatively infrequent IV ecstasy users. For example, 49 (98%) of the 50 user participants reported usually (more than half the time) administering ecstasy orally, and this was supported by information provided by key informants. In the six months preceding the survey, all participants reported having swallowed ecstasy, 19 (38%) had snorted it; two (4%) had smoked it, and four (8%) had injected the substance.

Although none of the user participants interviewed in this project reported injection as their primary route of administration of ecstasy, 14 (28%) had injected a drug and 8 (16%) had injected ecstasy at least once. The median age at initiation to IV ecstasy use was 19.5 years. Lifetime prevalence of injecting drug use among this sample was similar to that found in both past and current studies of ecstasy users in Australia (Lenton et al., 1997 [33%]; Topp & Darke, 2001 [28%]; Topp et al., 1999 [33%]). Only one participant, however, reported initiating to injecting drug use with ecstasy, and consistent with the findings of recent Australian illicit drug user surveys, (AIHW, 2000; McAllister, 2001; Topp et al., 1999) the majority of IV users interviewed in this study reported initiating to injecting drug use with amphetamines. Researchers in the United Kingdom (Green et al., 1995; Peters et al., 1997) and Australia (Topp et al., 1999) have interpreted similar findings to indicate that IV ecstasy use is becoming more prevalent among IDU. Although there are no data upon which to gauge whether IV ecstasy use has increased over recent years among IDU in Queensland, as an indication, 30% of the IDU participants interviewed in the Queensland Drug Trends 2000 project (McAllister, 2001) reported having injected ecstasy.

Approximately half of the ecstasy users interviewed in this project reported using more than one tablet or capsule of ecstasy in a typical period of use, which, for the most part, would seem to involve a night of festivities that extends into the early, or sometimes late morning of the following day. With the exception of one participant (who used 1/2 tablet), the remaining user participants (approximately 50% of the sample) reported using one tablet in a typical period of use. Sixty percent of the ecstasy user participants reported having binged on ecstasy for more than 48 hours without sleep at least once during the six months preceding the survey, and the median length of the longest binge during that period was three days. The median number of tablets consumed in users' most extreme session of use during the six months preceding the survey was three, and 20% of users reported use of six or more tablets in their most intensive recent binge. While the rate of bingeing in the current sample (60%) was higher than in a previous study of ecstasy users conducted in 1997 (Topp et al., 1999) (35%), this disparity may reflect the fact that the 1997 study had less stringent inclusion criteria than the current study in relation to the frequency of recent ecstasy use, and as a result, contained a larger percentage of relatively infrequent users who were less likely to engage in protracted binges than the current sample. The potential for sampling error should also be acknowledged given the small sample size. Notwithstanding, usage data reported by the current sample has value as a baseline for future studies investigating changes in patterns of ecstasy use over time.

Consistent with the findings of Lenton et al. (1997) and Topp et al. (1999), a large proportion of the ecstasy user participants reported using other licit and illicit substances both in conjunction with ecstasy use and in the period immediately succeeding ecstasy use (the "come-down" or "recovery" period). Tobacco, cannabis, and amphetamines were the drugs reported as most often consumed either before administration of ecstasy, or during its effects. Forty-eight percent of the sample reported usually (i.e., two thirds of the time) using amphetamines with ecstasy. Cannabis; tobacco; and alcohol were reported as the drugs most commonly consumed in order to self medicate the aversive physical and psychological symptoms of ecstasy use. Half of the ecstasy user participants reported relatively infrequent use of benzodiazepines during the six months preceding the survey, and a minority (14%) of users reported regularly (two thirds of the time) using those substances to "come down" from ecstasy. Similar patterns of poly-drug use have previously been identified in other Australian samples of party drug users (Boys, Lenton, & Norcoss, 1997; Topp et al., 1999). The use of benzodiazepines among ecstasy users may be particularly concerning given recent evidence

that amphetamine users who used benzodiazepines were more likely to report higher levels of poly-drug use; psychopathology and HIV risk behaviours; and lower levels of general health and social functioning than those who did not (Darke et al., 1994).

Although this small convenience sample is unlikely to be representative of the population of ecstasy users in Brisbane, ecstasy user participants' reports about their use of various drugs, coupled with analogous reports from key informants, suggest that poly-drug use is relatively common among that population. While concurrent use of amphetamines and ecstasy (which was reported as the norm by approximately half of the user participants) was the pattern of drug use that many key informants identified as having the greatest potential for harm, none of the analyses investigating potential relationships between amphetamine use and indices of harm produced significant results. As noted in several sections of this report, the potential to find significant associations between patterns of use and drug-related harm is mitigated by the small sample size.

Based upon users' responses, ecstasy; cannabis; tobacco; amphetamines; LSD; cocaine; amyl nitrate; benzodiazepines; and nitrous oxide would appear to be the drugs most commonly used by party drug users in Brisbane during 2000 (see table 3.3.1). It may be of interest to note that the prevalence and frequency of cannabis use among ecstasy user participants was very similar to that reported by IDU participants in the main 2000 Queensland IDRS (McAllister, 2001). On average, ecstasy user participants reported having used cannabis on 90 of the preceding 180 days, (IDU=90 days) and 34% of ecstasy user participants were daily cannabis users (IDU=20%).

4.1.2. Physical and Psychological Effects and Ecstasy Related Harms

On average, ecstasy user participants reported having recently (i.e., within the six months preceding the survey) experienced 9.4 physical and 4.9 psychological side-effects which they attributed, at least in part, to their use of ecstasy. Participants in the Sydney component of this study (Topp & Darke, 2001) reported equivalent numbers of physical (*M*=9) and psychological symptoms (*M*=5). Side-effects reported by Brisbane participants were consistent in nature with those reported in both current (Topp & Darke, 2001) and previous studies of ecstasy users elsewhere (Cohen, 1995; Curran & Travill, 1997; Topp et al., 1999; Williamson et al., 1997). Blurred vision; profuse sweating; insomnia; loss of energy; tremors or shakes; muscular aches; weight loss; numbness or tingling sensations; hot or cold flushes; and heart palpitations were the physical symptoms experienced by more than half of the ecstasy user participants at least once during the six months preceding the survey. Substantial minorities reported experiencing bruxism; shortness of breath; vomiting; dizziness; and stomach pains. Given that dancing in relatively crowded environments is a common pursuit of ecstasy users, it seems somewhat anomalous that most of the ecstasy user participants who had experienced profuse sweating and pains/stiffness in their joints attributed those conditions solely to the effects of ecstasy rather than a combination of factors.

Consistent with the findings of Curran & Travill (1997), key informant reports suggested that many ecstasy users experience several days of depression after cessation of ecstasy use. Several of the same respondents coined the term "Eckie Tuesday" when reporting that information with reference to regular weekend users, elaborating that feelings of depression and anxiety often peak on that day and gradually subside during the rest of the week. According to key informant reports, the belief (among users) that these symptoms were attributable to temporary depletion of serotonin was reported to underlie the use of SSRI anti-depressant medications during the days immediately following ecstasy use. Consistent

with key informants reports describing the psychological side-effects of regular ecstasy use, at least half of the ecstasy user participants reported feeling either irritable, depressed, confused, and/or anxious for between one and two days (on average) after using ecstasy. Memory lapses, auditory hallucinations, and feelings of paranoia, the most extreme cases lasting (on average) for several hours, were experienced by at least 40% of participants. Of particular concern was the finding that six (12%) participants had experienced suicidal thoughts either while under the effects of ecstasy or after using the substance, especially given five of those participants attributed those ideations solely to ecstasy use. Perhaps equally concerning was the fact that a minority (10%) of participants (three males and two females) reported recently engaging in violent behaviour which they all believed was solely attributable to their use of ecstasy (or at least, pills that were sold as ecstasy). Reports suggesting violent behaviour are inconsistent with the notion that those users had ingested MDMA, however, as that substance is reported to induce feelings of empathy and warmth. It seems highly likely that users reporting violent behaviour had consumed methamphetamine tablets, which FCS-QHSS reports suggest comprise the majority of the pills that are sold as ecstasy in Queensland and Australia.

Although ecstasy-related occupational/study problems (52%) and relationship/social problems (38%) were reported by relatively large proportions of the sample, there are several factors that should be taken into account when interpreting those data. Firstly, the majority of occupational and social problems were relatively minor, and only a small proportion of users had experienced significant disruption to their lives (such as ending a relationship or losing a position of employment) as a result of their ecstasy use. Secondly, user participant responses reflect the problems experienced by fairly regular ecstasy users (ecstasy use on one in every 10 days [on average] for the past six months), and should not be interpreted to reflect the rate at which problems are experienced by the population of ecstasy users. Notwithstanding those caveats, the frequency with which users reported experiencing physical and psychological side-effects of ecstasy use and ecstasy-related social and occupational problems indicates that regular ecstasy users are likely to encounter a range of negative experiences.

4.1.3. Price, Purity, and Availability of Ecstasy and Other Party Drugs in Brisbane

Ecstasy

Ecstasy user participants reported paying between $20.00 and $100.00 for an ecstasy tablet or capsule in Brisbane during the latter half of 2000, with the average price being $42.00. While the majority (58%) of participants reported negligible change in the price of ecstasy during the six months preceding the survey, prices reported by participants in the current study were, on average, $10.00 cheaper than those reported by participants in the Brisbane component of the 1997 ecstasy user survey.

The median purity of the 128 Queensland MDMA[6] seizures analysed in 1998-99 was 33%, representing minimal change from previous years. While this information highlights the extent to which ecstasy tablets are "cut" with various other substances, it does not indicate the average amount (dose) of MDMA that is contained in the various tablets that are sold as ecstasy in Queensland. By far the most important issue relating to the purity of MDMA tablets, however, is that the majority of tablets that are seized by law enforcement officers in Queensland contain negligible or nil traces of MDMA. According to the FCS-QHSS (personal communication, March, 2001), the majority of tablets and capsules that are seized by law enforcement officers in Queensland contain methamphetamine, and presence of

[6] includes MDMA and MDEA, MDA, and PMA seizures combined.

MDMA in those tablets was described as "the exception rather than the rule". In fact, tablets containing MDMA (or MDMA analogues such as MDA or MDEA) were estimated to comprise less than 20% of the illicit tablets that were analysed in Queensland during the past year. A minority of recent seizures in Queensland comprised methamphetamine tablets impregnated with LSD, while other seizures have included methamphetamine tablets mixed with ketamine; heroin; benzodiazepines, and caffeine (ABCI, 2001). Of particular concern was information from one key informant indicating the presence of DXM pills in Brisbane, especially given reports suggesting that the combination of this substance and MDMA could be potentially lethal (ABCI, 2000).

Other Party Drugs

Amphetamines

NDSHS (AIHW, 2000) data indicate that the number of Queenslanders using amphetamine has increased dramatically during the past few years. In their most recent report, it was estimated that the proportion of the Queensland population aged 14 years and over who had ever used amphetamines increased from 3.6% in 1995 to 8.1% in 1998. The proportion of the Queensland population in the same age cohort estimated to have used amphetamines during the year preceding the survey (recent users) increased from 0.8% in 1995 to 3.1% in 1998.

Evidence suggests that a considerable proportion of the amphetamine using population in Queensland administer those substances in some way other than by injection. For example, 3.1% of the 2586 Queensland 1998 NDSHS (AIHW, 2000) survey respondents reported having recently used amphetamines, whereas 1% of respondents (a sizeable proportion of whom would be primarily heroin users) reported having recently injected an illicit substance. Other data from the same survey indicate that the number of IV amphetamine users in Queensland has increased during recent years (McAllister, 2001). Accompanying this recent uptake in IV amphetamine use have been reports from treatment professionals suggesting an increase in the prevalence and severity of a variety of mental health problems, in particular, amphetamine induced psychosis and aggression (McAllister, 2001). Given that key informants in the main 2000 Queensland IDRS and the current project suggested that newly initiated IV amphetamine users were mostly people with a history of oral amphetamine use, party drug users would seem an appropriate target group for education about the harms associated with injecting drug use.

According to a recent publication by the QCC (2000), the majority of amphetamine that is used in Queensland comprises methamphetamine that is locally manufactured in a large number of small, sometimes portable chemical laboratories. In the main 2000 Queensland IDRS (McAllister, 2001), evidence to suggest decreasing price, increasing purity[7], and high availability was interpreted to indicate that the amphetamine market in Queensland has, for the past few years, been driven by supply to a greater extent than demand. In the context of the amphetamine market in Queensland, this suggests that the number of Queenslanders manufacturing methamphetamine in small household or portable laboratories has increased in recent years. For more information about the synthesis, forms, price, purity, availability, and use of amphetamines in Queensland, refer to QCC (2000) and McAllister (2001).

[7] the average purity of all amphetamine seizures in Queensland nearly trebled between 1996-97 (10%) and 1999-00 (28%).

Ecstasy user participant responses relating to the price, purity, and availability of amphetamines in Brisbane during 2000 were largely consistent with findings from the main 2000 Queensland IDRS (McAllister, 2001), indicating decreasing price, increasing purity, and high availability. Users' responses also support the notion that crystalline forms of methamphetamine ("base") are, on average, higher in purity than powdered forms of that substance (see figure 3.4.2, p 20). As reported in the main year 2000 Queensland IDRS (McAllister, 2001), this finding would seem related to the fact that powdered forms of amphetamine are often derived by diluting crystalline forms of the substance with agents such as glucose. Consistent with other evidence pointing to an increase in the supply side of the amphetamine market in Queensland during recent years (McAllister, 2001), the majority of ecstasy user participants rated amphetamines as ether "very easy" or "easy" to obtain in Brisbane during the latter half of 2000.

LSD and Other Party Drugs

While the majority of participants reported that the price of LSD had remained stable during the six months preceding the survey, the median price ($15.00 per tab) reported by participants in the current study was $5.00 less than that reported by participants in the Brisbane component of the 1997 survey (Topp et al., 1999). In contrast to ecstasy and amphetamines (which the majority of participants rated as either very easy or easy to obtain), reports about the availability of LSD in Brisbane during 2000 were relatively evenly distributed, with roughly equal (although small) numbers rating it as "very easy", "easy", "moderately easy" and "difficult" to obtain. Most users reported recently using what they perceived as either high or medium purity LSD. There were insufficient responses to provide reliable data about trends in the price and purity of ketamine and GHB, although qualitative responses suggest an increase in the availability of ketamine during the past year in Brisbane, particularly in the gay scene. Current trends in the use of cocaine are documented in the main 2000 Queensland IDRS (McAllister, 2001).

4.2. Study Limitations

There are several reasons to exercise caution when interpreting the results from this descriptive study. Firstly, it should be acknowledged that inclusion criteria precluded the recruitment of ecstasy users who had used ecstasy at less than monthly intervals (on average) during the six months preceding the survey. Due to the exclusion of infrequent ecstasy users; the comparatively small sample size; and the employment of a non-random sampling method; the extent to which ecstasy user participants in the current study were representative of the population of ecstasy users in Brisbane might reasonably be questioned. Secondly, the comparatively small sample size (n=50) largely precluded analyses of the potential relationships between patterns of ecstasy and poly-drug use; demographics; and ecstasy related harms. Future studies designed to investigate those associations would only seem worthwhile in the event that a sample size of at least 100 could be incorporated. It should also be acknowledged that user and key informant responses are subject to a variety of reporting biases.

4.3. Implications

Despite the limitations, the results from this study clearly indicate that with minor changes to the methodology, the IDRS can successfully monitor trends in the use of various party drugs and the markets for those substances. It is also clear that this information cannot be obtained through the extant IDRS, as IDU generally report a low rate of recent exposure to substances such as ecstasy and LSD.

The relatively high rate at which participants reported experiencing various physical and psychological side-effects of ecstasy use highlights the importance of continuing and expanding "rave-safe" outreach programs that aim to identify and, where necessary, intervene when users experience adverse symptoms at rave parties. It should be noted that these programs also provide an effective means of disseminating accurate information to users about safer using practices and the potential harms associated with certain patterns of (poly)drug use, and to event organisers about effective harm prevention and reduction measures.

NDSHS (AIHW, 2000) data and the reports of both users and key informants indicates that the prevalence of ecstasy use has increased during the past decade. In addition, users report that the substance is relatively easy to obtain. The ABCI (2000) suggest that there is minimal prospect for a reduction in the supply of imported ecstasy in the short term, or at least "*until supply-reduction strategies such as chemical diversion legislation take effect in Europe*" (p. 53). Given law enforcement question their ability to significantly reduce the amount of ecstasy being imported into Australia, demand reduction strategies, including education about the impact of poly-drug use and accurate information about the chemical composition of the various tablets that are sold as ecstasy in Australia may be the most expedient and cost effective means by which to reduce the harm associated with use of ecstasy and other party drugs.

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Appendix A

Table A1 presents data on drug use history of the ecstasy user sample (n=50), including the percentage of ecstasy users who reported having ever used various licit and illicit substances; percentages of those users who had ever used each substance who had ever and recently injected, smoked, snorted, or swallowed that substance; and the median (min-max) number of days that recent users reported having used that substance during the six months preceding the survey

Table A1. Drug Use History of the Ecstasy User Sample (n=50), Including the Percentage of Ecstasy Users Who Reported Having Ever Used Various Licit and Illicit Substances; Percentages of Those Users Who Had Ever Used Each Substance Who Had Ever and Recently Injected, Smoked, Snorted, or Swallowed that Substance; and the Median (Min-Max) Number of Days That Recent Users Reported Having Used that Substance During the Six Months Preceding the Survey.

Drug	Ever Used	Ever Injected	Injected Last Six Months	Ever Smoked	Smoked Last Six Months	Ever Snorted	Snorted Last Six Months	Ever Swallow-ed	Swallow-ed Last Six Months	Used in Last Six Months	Median Days Used Last Six Months (Min-Max)
Ecstasy	50 (100%)	8 (16%)	4 (8%)	5 (10%)	2 (4%)	26 (52%)	19 (38%)	50 (100%)	50 (100%)	50 (100%)	18 (6-102)
Meth/amphetamine (powder)	47 (94%)	10 (21%)	3 (6%)	13 (28%)	1 (2%)	36 (77 %)	20 (43%)	43 (92%)	30 (64%)	31 (66%)	6 (1-38)
Methamphetamine (‘base”)	40 (80%)	11 (28 %)	6 (15%)	9 (23%)	6 (15%)	21 (53%)	19 (48%)	39 (98%)	36 (90%)	37 (93%)	10 (1-72)
Ice or Shabu	8 (16%)	1 (13%)	0	3 (38%)	2 (25%)	2 (25%)	0	4 (50%)	2 (25%)	4 (50%)	4 (1-15)
Cocaine	35 (70%)	7 (20%)	2 (6%)	3 (9%)	2 (6%)	32 (91%)	18 (51%)	9 (26%)	5 (14%)	19 (56%)	2 (1-24)
LSD	43 (86%)	4 (9%)	1 (2%)	-	-	-	-	40 (93%)	24 (56%)	24 (56%)	3 (1-30)
MDA	20 (40%)	5 (25%)	2 (10%)	1 (5%)	1 (5%)	3 (15%)	1 (5%)	17 (85%)	12 (60%)	14 (70%)	2 (1-30)
Ketamine	15 (30%)	3 (20%)	1 (7%)	0	0	5 (33%)	3 (20%)	10 (67%)	4 (27%)	7 (47%)	2 (1-5)
GBH	9 (18%)	1 (11%)	1 (11%)	0	0	0	0	8 (89%)	5 (56%)	6 (67%)	3 (2-10)
DMT	3 (6%)	0	0	1 (33%)	0	0	0	2 (67%)	0	0	-
Amyl nitrate	26 (52%)	-	-	-	-	-	-	-	-	13 (50%)	4 (1-72)
Nitrous oxide	41 (82%)	-	-	-	-	-	-	-	-	19 (46%)	10 (1-50)
Cannabis	50 (100%)	-	-	-	-	-	-	-	-	47 (94%)	90 (1-180)
Alcohol	49 (98%)	-	-	-	-	-	-	-	-	48 (98%)	30 (1-180)
Heroin	16 (32%)	8 (50%)	1 (6%)	10 (63%)	1 (6%)	2 (13%)	0	1 (13%)	0	2 (13%)	1 (1-1)
Methadone	2 (4%)	1 (50%)	0	-	-	-	-	1 (50%)	0	0	-
Other Opiates	7 (14%)	2 (29%)	0	3 (43%)	1 (14%)	0	0	4 (57%)	1 (14%)	2 (29%)	2 (2-2)

Drug	Ever Used	Ever Injected	Injected Last Six Months	Ever Smoked	Smoked Last Six Months	Ever Snorted	Snorted Last Six Months	Ever Swallow-ed	Swallow-ed Last Six Months	Used in Last Six Months	Median Days Used Last Six Months (Min-Max)
Tobacco	46 (92%)	-	-	-	-	-	-	-	-	40 (87%)	180 (1-180)
Antidepressants	18 (36%)	0	0	1 (6%)	0	0	0	17 (94%)	10 (56%)	10 (56%)	8 (1-90)
Benzodiazepines	32 (64%)	2 (6%)	0	6 (19%)	3 (9%)	0	0	32 (100%)	25 (78%)	25 (78%)	4 (1-24)
Mushrooms	11 (22)	0	0	0	0	0	0	11 (100)	4 (36%)	4 (36%)	3 (1-20)