new south wales

L. Scott and L. Burns

NSW TRENDS IN ECSTASY AND RELATED DRUG MARKETS 2010

Findings from the
Ecstasy and Related Drugs Reporting System
(EDRS)

Australian Drug Trends Series No. 65

Please note that as with all statistical reports there is the potential for minor revisions to data in this report over its life. Please refer to the online version at www.ndarc.med.unsw.edu.au.

NEW SOUTH WALES TRENDS IN ECSTASY AND RELATED DRUG MARKETS 2010

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Australian Drug Trends Series No. 65

ISBN 978-0-7334-3008-4

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ACKNOWLEDGEMENTS

In 2010, the NSW Ecstasy and Related Drugs Reporting System (EDRS) was funded by the Australian Government Department of Health and Ageing (AGDH&A), and was coordinated by the National Drug and Alcohol Research Centre (NDARC). The NSW EDRS team would like to thank Kirrily Cornwell, Angela McNally, Joe Upston and Robyn Davies and colleagues of the AGDH&A for their continued assistance with and support of the EDRS.

We are indebted to the 100 regular ecstasy users (REU) interviewed for the 2010 NSW EDRS for their open discussion of illicit and stigmatised activities. The detail in this report would not be possible without the information they provide. We would like to also thank the 19 key experts (KE) who agreed to be involved in the 2010 NSW EDRS. KE participate in 45 minute interviews and receive no compensation for their time and effort, and we gratefully acknowledge their expert input.

We thank Amanda Roxburgh for assistance with indicator data. Her tireless efforts each year in collecting indicator data, and her assistance in the analysis and interpretation of indicator data, are greatly appreciated. We thank Louise Mewton, Aspasia Karageorge and Meghan Harrison for their assistance interviewing participants.

The EDRS depends on a large number of people who generously give their time and support to the project. In 2010 the EDRS relied upon many, including:

- Mr Christopher Bourke, Division of Analytical Laboratories, Institute of Clinical Pathology and Medical Research;
- Mr Tony Trimmingham and Ms Jennifer Chapman, Family Drug Support (FDS);
- Mr George Bodilsen and Mr Tony Mole, Australian Institute of Health and Welfare (AIHW);
- Ms Debra Crosbie and Mr David Lester, Alcohol and Drug Information Service (ADIS), St Vincent's Hospital;
- Mr Kieron McGlone and Ms Annie Malcolm, NSW Department of Health;
- Ms Lipan Rahman, Ms Brooke Black and Mr David Biddle, Australian Bureau of Statistics;
- Mr Craig Lindsay and Mr Chris Gardiner, Australian Customs and Border Protection Service;
- Mr Michael Outram and Ms Amber Migus, Australian Crime Commission; and
- Detective Superintendent, Nicholas Bingham, State Crime Command, NSW Police.

We also wish to thank the following agencies that provided indicator data for the 2010 NSW EDRS:

- Alcohol and Drug Information Service, St Vincent's Hospital;
- Australian Crime Commission (formerly the Australian Bureau of Criminal Intelligence);
- Australian Institute of Health and Welfare (AIHW);
- Family Drug Support;
- NSW Police Service;
- NSW Bureau of Crime Statistics and Research;
- NSW Department of Health; and
- National Centre in HIV Epidemiology and Clinical Research.

We extend many thanks to the current National Coordinators, Natasha Sindicich and Jennifer Stafford, and to the previous National Coordinators for their guidance and support.

Finally, we are grateful to Paul McElwee from Turning Point Alcohol & Drug Centre in Victoria who created the database for the EDRS. His tireless efforts and capacity to respond to requests in a short timeframe were greatly appreciated.

ABBREVIATIONS

1,4-B	1,4-butanediol
2-CB	4-bromo-2,5-dimethoxyphenethylamine
2-CE	2,5-dimethoxy-4-ethylphenethylamine
2-CI	2,5-dimethoxy-4-iodophenethylamine
5-HTP	5-hydroxy-tryptophan
5MEO-DMT	5-methyoxy-dimethyltryptamine
ABCI	Australian Bureau of Criminal Intelligence
ABS	Australian Bureau of Statistics
ACC	Australian Crime Commission
ACON	AIDS Council of NSW
ACPR	Australasian Centre for Policing Research
ADIS	Alcohol and Drug Information Service
AFP	Australian Federal Police
AGDH&A	Australian Government Department of Health and Ageing
A&TSI	Aboriginal and/or Torres Strait Islander
AIHW	Australian Institute of Health and Welfare
AOD	Alcohol and other drugs
ATS	amphetamine type stimulant
AUDIT	Alcohol Use Disorders Identification Test
BBVI	blood-borne viral infections
BMI	body mass index
BOCSAR	Bureau of Crime Statistics and Research
BZP	1-benzylpiperazine
CNS	central nervous system
DASSA	Drug and Alcohol Services South Australia
DMS	dimethyl sulfone
DMT	dimethyl tryptamine
DOB	2,5-dimethoxy-4-bromoamphetamine
DOI	death on impact; 2,5-dimethoxy-4-iodoamphetamine
DOM	2,5-dimethoxy-4-methylamphetamine
DXM	dextromethorphan
EDRS	Ecstasy and Related Drug Reporting System
ERD	ecstasy and related drugs
FDS	Family Drug Support

GBL	gamma butyrolactone
GHB	gamma-hydroxy butyrate
GLBTQ	gay/lesbian/bisexual/transgender/queer
GP	general practitioner
HBV	hepatitis B virus
HCV	hepatitis C virus
HIV	human immunodeficiency virus
ICD-9-CM	International Statistical Classification of Disease and Related Problems – 9th revision, clinical modification
ICD-10-AM	International Statistical Classification of Disease and Related problems – 10th revision, Australian Modification
IDRS	Illicit Drug Reporting System
IDU	injecting drug user(s)
K10	Kessler Psychological Distress Scale
KE	key expert(s)
LSD	*d*-lysergic acid diethylamide
MDA	3,4-methylenedioxyamphetamine
MDEA	3,4-methylenedioxyethylamphetamine
MDMA	3,4-methylenedioxymethamphetamine
MDPV	3,4-methylenedioxypyrovalerone; ivory wave
MDS AODATS	Minimum Data Set for Alcohol and Other Drug Treatment Services
NDARC	National Drug and Alcohol Research Centre
NDLERF	National Drug Law Enforcement Research Fund
NDSHS	National Drug Strategy Household Survey
NNDSS	National Notifiable Diseases Surveillance System
NSP	Needle and Syringe Program
NSW	New South Wales
PASW	Predictive Analytics Software
PDI	Party Drugs Initiative
PIED	performance and image enhancing drugs
PMA	para-methoxyamphetamine
PNS	peripheral nervous system
REU	regular ecstasy user(s)
SDS	Severity of Dependence Scale
SES	socio-economic status
SPSS	Statistical Package for the Social Sciences

STI	sexually transmitted infections
THC	delta-9-tetrahydro-cannabinol
TMA	3,4,5-trimethoxyamphetamine

GLOSSARY

1,4-B	Acronym for 1,4-butanediol. It is a GHB precursor and substitute, which metabolises into GHB in the stomach
2-CB	Street term for 4-bromo-2,5-dimethoxyphenethylamine. It is a synthetic psychedelic of moderate duration
2-CI	Street term for 2,5-dimethoxy-4-iodophenethylamine. It is a short-acting synthetic psychedelic
Bump	A bump refers to a small amount of powder, typically measured and snorted from the end of a key, the corner of a plastic card or a 'bumper'
Bumper	A bumper is a small glass nasal inhaler, purchased from tobacconists, used to store and administer powdered substances such as ketamine
Cap	Capsule
Cocaine	A central nervous system stimulant, obtained from the cocoa plant. Cocaine hydrochloride, the salt, is the more common form used in Australia. The freebase form is called 'crack'; little or no crack is available or used in Australia
Crystal	Street term for crystal methamphetamine, a potent form of methamphetamine. Also known as 'ice'
Daily use	Use occurring on each day in the past six months, based on a maximum of 180 days
Ecstasy	Street term for MDMA (3,4-methylenedioxymethamphetamine), which may contain a range of other substances. It is an hallucinogenic amphetamine
GBL	Acronym for gamma butyrolactone. It is a GHB precursor and substitute, which metabolises into GHB in the stomach
GHB	Acronym for gamma-hydroxy butyrate. It is a central nervous system depressant. Other known terms include 'GBH' and 'liquid ecstasy'; however, the latter is misleading as GHB is a depressant, not a stimulant
Ketamine	It is a dissociative psychedelic used as a veterinary and human anaesthetic
Lifetime injection	Injection (typically intravenous) on at least one occasion in the participant's lifetime

Lifetime use	Use on at least one occasion in the participant's lifetime via one or more of the following routes of administration: inject; smoke; snort; swallow; and/or shaft/shelve
LSD	Acronym for *d*-lysergic acid diethylamide. It is a powerful hallucinogen
MDA	Acronym for 3,4-methylenedioxyamphetamine. It is classed as a stimulant hallucinogen. It is closely related to MDMA (and is sometimes found in ecstasy tablets); however, its effects are said to be slightly more psychedelic
Mephedrone	Mephedrone (2-methylamino-1-p-tolylpropane-1-one), also known as 4-methylmethcathinone (4-MMC) or 4-methylephedrone, is a stimulant and entactogen drug of the phenethylamine, amphetamine, and cathinone chemical classes
Methamphetamine	An analogue of amphetamine, it is a central nervous system stimulant. The three main forms of methamphetamine in Australia are methamphetamine powder ('speed'), methamphetamine base ('base') and crystalline methamphetamine ('crystal', 'ice')
PMA	Acronym for para-methoxyamphetamine. It is an amphetamine-type drug with both stimulant and hallucinogenic properties
Point	0.1 gram
Recent injection	Injection (typically intravenous) in the last six months
Recent use	Use in the last six months via one or more of the following routes of administration: inject; smoke; snort; swallow; and/or shaft/shelve

EXECUTIVE SUMMARY

The 2010 NSW Trends in Ecstasy and Related Drug Markets report represents the eleventh year in which data has been collected in NSW on the markets for ecstasy and related drugs. The Ecstasy and Related Drugs Reporting System (EDRS; formerly the Party Drugs Initiative, or PDI) is the most comprehensive and detailed study of ecstasy and related drug markets in NSW. Using a similar methodology to the Illicit Drug Reporting System (IDRS), the EDRS monitors the price, purity and availability of 'ecstasy' (MDMA) and other related drugs such as methamphetamine, cocaine, GHB and ketamine. It also examines trends in the use and harms of these drugs. It utilises data from three sources: a) surveys with regular ecstasy users (REU); b) surveys with key experts (KE) who have contact with REU through the nature of their work; and c) the analysis of existing data sources that contain information on ecstasy and other drugs. Regular ecstasy users are recruited as they are considered a sentinel group to detect illicit drug trends. The information from the REU is, therefore, not representative of ecstasy and other drug users in the general population, but is indicative of emerging trends that may warrant further monitoring.

The findings from each year not only provide a snapshot of the drug markets in NSW, but also help to provide an evidence base for policy decisions, inform harm reduction messages, and provide directions for further investigation when issues of concern are detected. Continued monitoring of the ecstasy and related drug markets in NSW will help add to our understanding of the use of these drugs; the price, purity and availability of these drugs and how these may impact on each other; and the associated harms which may stem from the use of these drugs.

Demographics

- 100 REU were sampled in the 2010 EDRS (74 male and 26 female).
- Participants were young (mean age=26 years), well educated and the majority spoke English as their first language.
- Very few participants had ever been in prison (6%) or reported being currently in drug treatment (5%).
- These demographics have remained relatively stable over time aside from an increasing proportion who identify as heterosexual.

Patterns of drug use among REU

- Participants had experience with a wide range of drugs; having used an average of 11 different drug types during their lifetimes and 7 different drug types over the past six months.
- One fifth of the group reported having ever injected a drug.
- Increases were seen in the lifetime and recent use of crystal, GHB, benzodiazepines, nitrous oxide, heroin and LSD.
- Reductions were seen in the recent use of mushrooms.
- Ecstasy was the main drug of choice for one-third of the sample.
- Over one-quarter of the group had recently binged on ERD for a median of 3 days (72 hours).

Ecstasy

Consumption Patterns

- Ecstasy was used on a median of 12 days over the past six months (i.e. approximately fortnightly).
- Participants had used a median of 2 tablets during a 'typical' occasion of use (range 1-10).
- Swallowing was the main route of administration (92%).
- The vast majority of REU (94%) reported using other drugs in combination with ecstasy the last time they used it, most commonly alcohol, tobacco and cannabis.
- Over half the sample (57%) used other drugs to help them come down from ecstasy the last time they used it, most commonly cannabis, tobacco and alcohol.
- Ecstasy was most commonly last used at a nightclub (42%).
- Most REU (88%) felt there were some benefits associated with their use of ecstasy. Enhanced mood was that most commonly reported.
- The proportion of the NSW population who reported using ecstasy within the last twelve months rose from 0.4% in 1988 to 3.4% in 2007.
- Approximately one-third (36%) of men interviewed for the Sydney Gay Community Periodic Survey reported having recently used ecstasy. A significant decline from the previous survey.
- Key experts continued to be concerned by the practice of mixing ecstasy with alcohol and other drugs.

Market Characteristics

- *Price*: $25 per tablet
- *Purity*: Currently low and appears to be declining
- *Availability*: Currently easy to obtain although appears to have become slightly more difficult in 2010.
- Key experts agreed that the purity of ecstasy was currently low although it continued to be readily available.

Methamphetamine

The 2010 EDRS distinguished between three different forms of methamphetamine: methamphetamine powder ('speed'); methamphetamine base ('base'); and crystal methamphetamine ('crystal').

Consumption Patterns

Speed

- Eight-in-ten had ever used speed and 29% had done so recently.
- Speed was used on a median of 2 days over the preceding six months and was primarily snorted (90%).
- The frequency of use appeared to be in decline.

Base

- Half the sample had ever used base and one-fifth had done so recently.
- Base was used on a median of 2 days over the preceding six months and was primarily swallowed (67%).
- The quantities used declined in 2010 for the first time in four years.

Crystal

- Two-fifths of the sample had ever used crystal and one-fifth had done so recently.
- Crystal was used on a median of 3 days over the preceding six months and was primarily smoked (76%).
- The frequency of use of crystal had fluctuated over time although the quantities have remained stable.

- Methamphetamines were most commonly used in private settings aside from speed which was also commonly used in nightclubs.
- There appears to have been an overall decline in the use of methamphetamine from 1998 (3.8%) to 2007 (1.8%) among the NSW general population.
- The use of speed and crystal by respondents in the Sydney Gay Community Periodic Survey has been in decline since 2004.
- KE generally agreed that speed and base were becoming less common while crystal was still used by REU.

Market Characteristics:

Speed

- *Price*: $60 per gram.
- *Purity*: Currently medium and appears to be stable.
- *Availability*: Currently easy to obtain and stable.

Base

- *Price*: $20 per point; $200 per gram.
- *Purity*: Currently medium to high and appeared to be stable.
- *Availability*: Currently easy to obtain and stable.

Crystal

- *Price*: $50 per point.
- *Purity*: Currently medium to high although reports varied.
- *Availability*: Currently easy to obtain although reports varied.

- Key experts agreed that speed and base were of lower purity than crystal. However, some KE reported that the purity of crystal was declining.

Cocaine

Consumption Patterns

- The majority of the group (88%) had tried cocaine at least once and three-fifths had used it recently.
- Cocaine was used on a median of 4.5 days (i.e. less than monthly) over the preceding six months.
- The proportions using cocaine, the frequency and quantities used have all remained stable from 2009 to 2010.
- Recent use of cocaine among the NSW general population remained low.
- From 2004 to 2010 there had been a significant increase in the use of cocaine among participants of the Sydney Gay Community Periodic Survey.
- Key experts reported that although cocaine continued to be expensive, it was being used by an increasingly diverse group.

Market Characteristics

- *Price*: $300 per gram.
- *Purity*: Reports variable.
- *Availability*: Appears to have become easier to obtain.
- Key experts agreed that the price and purity of cocaine had remained relatively stable although the availability had increased.

Ketamine

Consumption Patterns

- Two-thirds of the sample had tried ketamine at least once, and one-quarter had used it recently.
- Ketamine was used on a median of 2.5 days (i.e. less than monthly) over the preceding six months.
- There was a slight decrease in the quantities used from 2009 to 2010.
- Recent use of ketamine among the NSW general population remained low and stable.
- From 2004 to 2010 there had been a significant decline in the use of ketamine among participants of the Sydney Gay Community Periodic Survey.
- Key experts reported that they had not heard much about ketamine over the past 6 to 12 months.

Market Characteristics

- *Price*: $150 per gram.
- *Purity*: Currently high although changes over time variably reported.
- *Availability*: Reports variable.
- Key experts reported the supply of ketamine was irregular, although price and purity were thought to have remained stable.

GHB

Consumption Patterns

- Two-fifths of the sample had tried GHB at least once and one-fifth had used it recently.
- GHB was used on a median of 3 days (i.e. less than monthly) over the preceding six months.
- There was a significant increase in the lifetime and recent use of GHB from 2009 to 2010.
- Recent use of GHB among the NSW general population remained low and stable.
- From 2004 to 2010 there had been a significant increase in the use of GHB among participants of the Sydney Gay Community Periodic Survey.
- Key experts were concerned about the rising popularity of GHB and the risk of overdose associated with the availability of both GHB and GBL on the market.

Market Characteristics

- *Price*: $10 per mL.
- *Purity*: Currently medium to high.
- *Availability*: Currently easy to obtain and had remained stable.
- Key experts agreed that the price and purity of GHB had remained stable although comments on availability were variable.

LSD

Consumption Patters

- Three-quarters of the sample had tried LSD at least once and two-fifths had used it recently.
- LSD was used on a median of 3 days (i.e. less than monthly) over the preceding six months.
- The use of LSD among the sample appeared to be increasing over time.
- The use of hallucinogens among the NSW general population had been declining over time.
- The use of LSD among participants of the Sydney Gay Community Periodic Survey had remained relatively low and stable over time.
- Key experts agreed that the use of LSD was increasing among REU, especially at festivals and events.

Market Characteristics

- *Price*: $20 per tab.
- *Purity*: Currently medium to high and stable.
- *Availability*: Currently easy to obtain and had remained stable.
- Key experts agreed that the purity of LSD had remained relatively stable and the availability was known to fluctuate.

Cannabis

Consumption Patters

- Almost every participant had tried cannabis at least once and three-quarters had used it recently.
- Cannabis was used on a median of 49 days (i.e. twice per week) over the preceding six months.
- The use of cannabis had remained relatively stable over time.
- The use of cannabis among the NSW general population had been declining over time.
- The use of cannabis among participants of the Sydney Gay Community Periodic Survey had declined over time.
- Key experts agreed that cannabis continued to be widely used among REU.

Market Characteristics

Hydro

- *Price*: $20 per gram; $300 per ounce.
- *Potency*: Currently high and appeared to be stable.
- *Availability*: Currently very easy to obtain and stable.

Bush

- *Price*: $20 per gram; $235 per ounce.
- *Potency*: Currently medium and appeared to be stable.
- *Availability*: Reports variable.

Research chemicals

- The two most common research chemicals recently used among Sydney REU were DMT (n=7) and mephedrone (n=4).
- Key experts reported that they had not heard much about mephedrone lately and that there had been a substantial drop in the availability of piperazines (mainly BZP).

Other drug use

- Every participant reported the lifetime use of alcohol and 97% had used it recently.
- Key experts reported that alcohol continued to be one of the most problematic drugs among REU.
- The majority of REU had used tobacco at least once and three-quarters had done so recently.
- Two-fifths of the group had recently used benzodiazepines. Illicit use was more common than licit use.
- One-in-ten REU had recently used antidepressants. Licit use was more common than illicit use.
- Almost half the sample had recently used amyl nitrite while 15% had recently used nitrous oxide.
- One-quarter of the sample had ever used heroin and 12% had done so recently. The use of other opiates was relatively low among REU.
- One-in-ten had recently used mushrooms, significantly lower than in 2009 (21%).
- Sixteen percent of the sample had recently used pharmaceutical stimulants. Illicit use was more common than licit use.
- While the use of over the counter codeine-containing products was common among REU, it was usually for pain-relief rather than recreational purposes.
- No participant reported having recently used PIEDs.

Health-related harms associated with ecstasy and related drug use

- One-third of participants reported having overdosed on a stimulant drug throughout their lifetime.
- One fifth of REU reported having ever overdosed on a depressant drug.

- Deaths associated with ecstasy, amphetamines, ketamine and GHB had remained low and stable over the past year, while those in which cocaine was detected had fluctuated.
- Almost one-third of REU (29%) reported that they had recently accessed a medical or health service in relation to their drug use.
- Calls to ADIS and FDS regarding ecstasy and amphetamines appeared to have declined from early-2007 onward. Calls to cocaine had remained relatively stable from 2009 to 2010.
- One-quarter (26%) reported that their use of drugs had recently caused repeated problems with family, friends or people at work or school.
- One-third (34%) reported recurrently finding themselves in situations where they were under the influence of a drug and could have caused injury either to themselves of others.
- Two-fifths (40%) reported their drug use had recurrently interfered with their responsibilities at home, work or school.
- Less than 10% reported ongoing legal problems associated with their use of drugs.
- One-fifth of the group had recently experienced a mental health problem. Mood and anxiety disorders were those most commonly reported.
- Participants completed the Kessler Psychological Distress Scale (K10). One-third of the group fell into the 'high' or 'very high' distress' categories.

Risk behaviour

- One-fifth of the sample had ever injected a drug and 14% had done so recently.
- Less than half the group had completed a hepatitis B virus (HBV) vaccination schedule.
- Rates of testing for BBVI was low with 20% having recently tested for hepatitis C virus (HCV), 29% for human immunodeficiency virus (HIV) and 30% having recently had a sexual health check-up.
- Almost two-thirds of the sample had recently had penetrative sex with a casual partner. Almost one-fifth reported upwards of six casual partners over the preceding six months.
- Three-fifths of the sample had recently driven a vehicle. Over two-thirds of these had done so while over the legal blood alcohol limit, and more than half after having taken an illicit drug.
- Participants completed the Alcohol Use Disorders Identification Test (AUDIT). The majority (81%) of the group fell in the 'harmful drinking' range.

Criminal activity

- One-quarter of REU had reportedly been arrested over the past year.
- More than one-third of REU had committed a crime within the past month. Most commonly drug dealing and property crimes.
- Participants reported that police activity had made it more difficult for them to take drugs into events and venues.
- The number of arrests for ecstasy use/possession seems to have decreased from mid-to-late 2009 onward. Increases are noted in the numbers of arrests for both use/possession and deal/trafficking of amphetamines. The numbers of police-

recorded incidents for the use or possession of cocaine and of cannabis have been increasing since mid-2007.

- The majority of participants (86%) reported that half or more of their friends had used ecstasy during the previous six months.
- The majority (94%) of participants had seen sniffer dogs in the six months preceding the interview in a variety of settings including festivals/events and also walking around party precincts and near public transport.

Special topics of interest

- More than two-thirds of participants had consumed energy drinks mixed with alcohol over the preceding six months.
- Three-quarters of those who had recently consumed energy drinks had done so when they were under the influence of another drug. The drugs most commonly reported were ecstasy (64%), cannabis (30%) and cocaine (22%).
- The average body mass index (BMI) was 22.4 (range 17.1-32.3). One-fifth of the sample fell into the 'overweight' category; and two participants were classified as 'obese'.
- Three-fifths of the sample had not been tested for sexually transmitted infections (STI) over the preceding two years. The most common reason cited was that they "had not thought about it".
- Half of the women in the sample had undergone pap smear testing over the past two years.

Implications

The NSW branch of the EDRS aims ultimately to monitor trends in the Sydney ecstasy and related drug (ERD) markets and to investigate harms associated with ERD use. The 2010 NSW EDRS revealed widespread, ongoing fluctuations in consumption patterns and drug market characteristics. It also highlighted areas requiring further investigation relating to the health and safety of REU including risky sexual health and driving practices. These trends and their possible implications are discussed below.

Highly variable ERD markets

The first point of interest is that in 2010 the EDRS revealed increasingly variable ERD markets. In 2009, multiple sources indicated that the purity of ecstasy had declined significantly and that there was increasing experimentation among REU. In 2010, the purity of ecstasy continued to remain low and fluctuation in ERD markets was even more pronounced. Increasing interest in LSD and GHB, in particular, was noted in 2009; and in 2010 multiple sources of data indicated that this interest continued to grow. Interestingly, while increasing LSD and GHB use had been noted in various parts of the city and by different sources, there appeared to be group-specific trends emerging. For example, both KE interviews and Sydney Gay Community Periodic Survey data suggested that GHB use had particularly increased among the gay/lesbian/bisexual/transgender/queer (GLBTQ) community. For LSD, the majority of reports from KE interviews suggested an increase in use among festival goers and event attendees.

Not all drugs were becoming more popular. Multiple data sources (including REU questionnaires, KE interviews and the Sydney Gay Community Periodic Survey) all suggested that the interest in ecstasy may be declining. Interest in ketamine also appeared to have waned according to data from the EDRS user survey and the Sydney Gay Community Periodic Survey. KE interviews supported the conclusion that ketamine was less available in 2010 than it had been toward the end of 2009. The frequency and quantity of methamphetamine use continued to be in decline, a trend noted for the past few years. The incidence and frequency of use of speed and base were particularly low among REU and also among respondents to the most recent National Drug Strategy Household Survey and Sydney Gay Community Periodic Survey. The general consensus among KE was that speed and base were far less commonly seen than crystal. Furthermore, recent data suggested that the purity of crystal methamphetamine was becoming increasingly variable. If this continues, the purity of crystal may decline over time and could eventually lead to a reduction in the use of crystal. This is an emerging trend which the EDRS is well placed to monitor into the future.

Research chemicals

Interestingly, the 2010 EDRS was not able to generate substantial data regarding the use of research chemicals among REU in Sydney. This could be for multiple reasons. One reason may be that the ease of availability of other more common drugs such as GHB, LSD and crystal could make REU less likely to seek out alternatives such as research chemicals. Another reason may be that research chemicals are associated with greater perceived risk to acquire. For example, REU may not be prepared to order a drug online, seeing this as more likely to lead to prosecution than purchasing a drug from a friend or dealer in a private setting[1]. An alternative explanation is that the substantially higher population in Sydney compared with smaller jurisdictions like Tasmania[2], may mean that the survey is not capturing the subgroups which may be more interested in using research chemicals. Yet another possible explanation is that there may be individuals who import and distribute these drugs in smaller jurisdictions where they may have a greater impact than they do here in Sydney. It is clear that there may be many factors at play and that we do not yet have enough information to clearly outline the research chemical market here in Sydney. Fortunately, the EDRS will continue to monitor these drugs systematically into 2011. We will also be increasing the sample sizes in larger jurisdictions and including a special module regarding the use of these drugs. These additional measures should allow the EDRS to present a more comprehensive picture of this issue in 2011.

Sexual health

The second point of concern is that REU are at high risk of contracting BBVI and STI. High risk sexual practices that REU undertake include having multiple sexual partners, infrequent use of barriers during sexual intercourse, comparatively high rates of injecting drug use and also of snorting (and possibly also sharing snorting equipment), which can expose REU to transmission of BBVI and STI. In 2010, we specifically examined the rates of testing for these infections and found them to be particularly low in this group. It is generally accepted that as rates of testing for infections increase, so can rates of treatment and of the adoption of safe and appropriate sexual practices. Further

[1] This has traditionally been the most common source and location of purchase for most drugs investigated in the EDRS.

[2] Tasmania has seen a very large increase recently in the use of mephedrone among REU interviewed for the EDRS.

investigations undertaken in a separate study found that one-fifth of the national sample of REU were at 'high risk'[3] of contracting STI. These participants were significantly more likely to be young and male and significantly less likely to have recently been tested for STI. The data presented herein are concerning and relevant in the context of recent government initiatives to improve rates of testing for STI among young people in NSW. Young, male REU are an at risk group and would likely benefit from targeted interventions to improve their engagement with health service providers regarding testing for BBVI and STI.

Drug driving

The third point of concern among this group is the considerably high rates of driving under the influence of alcohol or drugs. Approximately half the NSW sample reported at least one incident of drink driving (i.e. having driven over the legal blood alcohol limit) over the past six months, and 59% reported having driven soon after having taken an illicit drug. A significant group among those who reported drug driving were regular cannabis users. Certain factors associated with regular cannabis use (i.e. the frequency of use and the fact that it remains detectable for so long after use, particularly so for regular users) may contribute to the decision to drive regardless of the risk of prosecution. However, there is also a large group who drives under the influence of other ERD, stimulants in particular. So, there appear to be groups who engage in drug driving for differing reasons. The former appears to do so because drug use is so entrenched in their usual routine that it would be, from their perspective, impractical to not drive. Furthermore, they often believe that cannabis use has little impact on their driving skills. For this group, it will be important to educate them about the impact of cannabis on cognitive skills and to emphasise the risk to themselves and others should they encounter unexpected situations on the road. Suggesting alternative transport options or encouraging regular cannabis users to use public transport may also be an option.

For the latter group, who drive under the influence of stimulants, it will be important to ascertain the reasons for doing so. There could be many reasons a person may decide to drive after having used stimulants. For example, they may have driven to a venue or event with no intention to take drugs and then do not wish to leave their car and decide to drive home; they could believe the risk of being caught will be very low; that their driving will not be affected too much or indeed that their driving may be improved with the use of stimulants; or it could be that they do not have adequate public transport to get home after a night out and they may feel that their only option is to drive. In 2011, the EDRS will attempt to further investigate this issue. One practical solution would be to offer improved public transport services such as frequent shuttles from party precincts (including Kings Cross and Oxford Street) to Town Hall and possibly increasing the frequency of night rider bus services to make them more attractive to young party goers.

Poor help-seeking behaviour

The fourth point of interest regards the apparent reluctance of REU to seek assistance when they experience an adverse drug-related event. EDRS data indicates that REU often to do not receive treatment when they experience a stimulant or depressant

[3] REU were identified as being at high risk of contracting STI if they i) reported recent penetrative sex with 3 or more casual partners, and; ii) reported 'not' using a protective barrier at least once over the past 6 months.

overdose. Inadequate responses to overdose could lead to both acute emergencies and chronic issues which people may not be properly equipped to manage, especially in private settings. Educating REU and their peers about the signs of overdose and the treatment options may help reduce the risk of this type of situation emerging in environments where health professionals may not be immediately present.

Interestingly, REU appear to be more likely to access service providers about ongoing issues rather than acute health problems. As mentioned in the 2009 EDRS, REU are often unaware of the relationship between their drug use and ongoing, sub-clinical issues. Disseminating information to improve their understanding of this relationship and of the signs to look for both in themselves and their acquaintances, may be the first step in engaging REU in treatment services. There is also a need to put systems in place, such as targeted help lines and online services, which are accessible and acceptable to REU and can act as pathways to other treatment options when appropriate.

Energy drinks

The final point of concern is the very high rates of mixing energy drinks with both stimulant and depressant drugs. The data from the EDRS in 2010 revealed alarmingly high rates of mixing energy drinks with alcohol and central nervous system (CNS) stimulants such as ecstasy and cocaine among REU. As yet the interactions between these drugs and energy drinks have not been fully investigated. Users frequently report that energy drinks are associated with worse hangovers and increased incidence of negative experiences when using drugs. It will be important for peer educators and other people who are involved in disseminating health information to this group to keep abreast of new trends such as these, and to incorporate relevant information into their programs. In particular, it will be pertinent to highlight to REU the fact that energy drinks act as CNS stimulants which may interact in unknown ways with alcohol and other licit and illicit substances.

Conclusions and future directions

Overall, in 2010 the EDRS has continued to fulfill its role as an indicator of market trends and also as a responsive tool which can allow us to investigate specific areas of interest in a timely fashion. The study has allowed us to identify ongoing trends in the use of drugs, particularly GHB and LSD. As these drugs can have powerful effects on the mind and body they can impact greatly on health care provision. The fact that we can identify increasing interest in these drugs is important and can be used by various health care provision services, law enforcement and those working in the organization and management of festivals and events to help them in their risk assessment and planning processes. The fact that we are flexible enough to incorporate areas of special interest allows us to respond to the interests and needs currently circulating in the community. We can provide an initial snapshot of data to encourage further investigation and to feed back to the community in the form of submissions to law enforcement personnel, dissemination activities with health service providers and submissions back to the AGDH&A. In 2011 the study will aim to continue to elucidate the emerging trends in the ERD markets and new special modules will attempt to investigate i) the relationship between drug use and the internet, ii) the issue of ecstasy dependence, and iii) the relationship between sleep quality and ERD use.

1 INTRODUCTION

The Ecstasy and Related Drugs Reporting System (EDRS) is an ongoing monitoring system funded in 2010 by the Australian Government Department of Health and Ageing (AGDH&A). It is run in a similar manner to the Illicit Drug Reporting System (IDRS), another ongoing data collection system funded by the AGDH&A. The IDRS provides a coordinated approach to the monitoring of the markets of heroin, methamphetamine, cannabis and cocaine. It was identified that the IDRS did not capture the use of ecstasy and related drugs, as these were used infrequently among the target population of the IDRS – injecting drug users (IDU).

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 in New South Wales (NSW) and Queensland (QLD) of the feasibility of monitoring emerging trends in the markets for ecstasy and other related drugs using the extant IDRS methodology. In addition, Drug and Alcohol Services South Australia (DASSA) (formerly known as the Drug and Alcohol Services Council) agreed to provide funding for two years to allow the trial to proceed in this state. The results of this trial are presented elsewhere (See L. Topp, Breen, Kaye, & Darke, 2004). Regular ecstasy users (REU) were identified as an appropriate sentinel population to investigate ecstasy and related drug markets.

The term 'ecstasy and related drugs' includes any drug routinely used in the context of entertainment venues such as nightclubs or dance parties. 'Ecstasy and related drugs' refers to drugs such as ecstasy (3,4-methylenedioxymethamphetamine; MDMA), methamphetamine, LSD, ketamine, MDA (3,4-methylenedioxyamphetamine) and GHB (gamma-hydroxybutyrate).

As with the IDRS, the EDRS involves the collection and analysis of three data components: a) a survey of current regular 'ecstasy' users (REU), who represent a sentinel population of regular ecstasy users likely to be aware of trends in illicit drug markets; b) interviews with key experts (KE) – professionals and volunteers who work with, or have regular contact with, regular ecstasy users; and c) the analysis of secondary indicator data sources, such as existing databases of customs seizures, police drug-related arrests, and drug information telephone services. The three data sources are triangulated against each other in order to minimise the biases and weaknesses inherent in each one, ensuring that only valid emerging trends are documented.

The 2010 NSW Trends in Ecstasy and Related Drug Markets report provides information regarding ecstasy and related drug trends in Sydney.

1.1 Aims

The aims of the 2010 NSW EDRS were:

1. to describe the demographic characteristics of a sample of current ecstasy users interviewed in Sydney in 2010;

2. to examine the patterns of ecstasy and related drug use of this sample, including lifetime and recent use of over 20 licit and illicit drugs;

3. to document the current price, purity and availability of ecstasy and related drugs in Sydney, including locations and persons scored from and locations of use;

4. to examine participants' perceptions of the incidence and nature of ecstasy and other drug-related harms, including health-related harms, as well as financial, occupational, social and legal harms;

5. to identify emerging trends in the ecstasy and related drug market that may require further investigation; and

6. to compare key findings of this study with those reported in previous years (2004-2009).

2 METHODS

The 2010 EDRS used the methodology trialled in the feasibility study (L. Topp, et al., 2004) to monitor trends in the markets for ecstasy and related drugs. The three main sources of information used to document trends were:

1. face-to-face interviews with current REU recruited in Sydney;

2. telephone interviews with KE who, through the nature of their work, have regular contact with users of ecstasy and/or other related drugs, or knowledge of the markets for these drugs in Sydney; and

3. indicator data sources such as the purity of seizures of ecstasy analysed in NSW, calls to drug support and information lines, and treatment services data.

These three data sources were triangulated to provide an indication of emerging trends in drug use and ecstasy and related drug markets.

2.1 Survey of regular ecstasy users (REU)

The sentinel population chosen to monitor trends in ecstasy and related drug markets consisted of people who engaged in the regular use of tablets sold as 'ecstasy'. Although a range of drugs fall into the category 'ecstasy and related drugs', ecstasy is a drug that can be considered one of the main illicit drugs used in Australia. It is the second most widely used illicit drug after cannabis with 3.5% of the population aged 14 years or older reporting recent use of ecstasy in the 2007 National Drug Strategy Household Survey (Australian Institute of Health and Welfare, 2008a).

The ecstasy (tablets sold purporting to contain 3,4-methylenedioxmethamphetamine; MDMA) market has existed here for more than two decades. In contrast, other drugs that fall into the class of 'ecstasy and related drugs' have either declined in popularity since the appearance of ecstasy in this country (e.g.MDA), have fluctuated widely in availability (e.g. ketamine and LSD), or are relatively new in the market and are not as widely used as ecstasy (e.g. GHB). It has been suggested that it would be difficult to identify a regular user of GHB or ketamine who was not also an experienced user of ecstasy, whereas the reverse will often be the case (L. Topp & Darke, 2001). Ecstasy may be the first illicit drug with which many young Australians who choose to use illicit drugs will experiment, and a minority of these users will go on to experiment with the less common related drugs such as ketamine, LSD and GHB.

The entrenchment of ecstasy in Australia's illicit drug markets, relative to other related drugs, underpinned the decision that regular use of ecstasy could be considered the defining characteristic of the target population – namely, ecstasy and related drug users/markets (L. Topp & Darke, 2001). In addition, as there has been an indication of increases in use and controversy

regarding the neurotoxicity of ecstasy, more information on ecstasy users was considered beneficial. A sample of this population was successfully recruited and interviewed in the two-year feasibility trial (L. Topp, et al., 2004), and was able to provide the data that were sought. Therefore, REU have been used again in 2010 to provide information on ecstasy and related drug markets.

2.1.1 Recruitment

A total of 100 REU residing in the Sydney metropolitan region were interviewed for the 2010 NSW EDRS. Participants were recruited through a purposive sampling strategy (Kerlinger, 1986), which included advertisements in entertainment street press, gay and lesbian newspapers, interviewer contacts, and 'snowball' procedures (Biernacki & Waldorf, 1981). 'Snowballing' is a means of sampling 'hidden' populations which relies on peer referral, and is widely used to access illicit drug users both in Australian (Boys, Lenton, & Norcoss, 1997; Ovendon & Loxley, 1996; Solowij, Hall, & Lee, 1992) and international studies (Dalgarno & Shewan, 1996; Forsyth, 1996; Peters, Davies, & Richardson, 1997). Initial contact was established through newspaper advertisements or interviewers' personal contacts. On completion of the interview, participants were requested to mention the study to friends who might be willing and able to participate and were handed cards containing the researcher's contact details to distribute to their peers.

2.1.2 Procedure

Participants contacted the researchers by telephone and were screened for eligibility. To meet entry criteria, they had to be at least 17 years of age (due to ethical constraints), have used ecstasy at least six times during the preceding six months, and have been a resident of the Sydney metropolitan region for the past 12 months. As in the IDRS, the focus was on the capital city, as new trends in illicit drug markets are more likely to emerge in urban rather than in remote or regional areas.

Participants were informed that all information provided was strictly confidential and anonymous, and that the study would involve a face-to-face interview that would take approximately 45 minutes. All respondents were volunteers who were reimbursed $40 for their participation. Interviews took place in a location negotiated with participants, predominantly at the National Drug and Alcohol Research Centre (NDARC) or in coffee shops, and were conducted by the NSW coordinator and three casual interviewers. The nature and purpose of the study was explained to participants before informed consent 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 (L. Topp, et al., 1998; 2000), which incorporated items from a number of previous NDARC studies of users of ecstasy (Solowij, et al., 1992) and powder amphetamine/methamphetamine (Darke, Cohen, Ross, Hando, & Hall, 1994; Hando & Hall, 1993; Hando, Topp, & Hall, 1997). The interview schedule focused primarily on the preceding six months, and assessed demographic characteristics; patterns of ecstasy use and related drug use, including: frequency and quantity of use and routes of administration; the price, purity and availability of a range of related drugs; health-related trends and service usage; risky behaviours (including: injecting behaviours, BBVI, sexual activity, driving and problematic alcohol use); law enforcement-related trends (including self-reported criminal activity and arrest

and experiences with drug detection dogs); and trends in special areas of interest for 2010 (including the use of energy drinks with alcohol and other drugs, body mass index and sexual health testing).

2.1.4 Data analysis

For continuous, normally distributed variables, *t*-tests were employed and means reported. Where continuous variables were skewed, medians[4] are reported and the Mann-Whitney *U*-test, a non-parametric equivalent of the *t*-test (Siegel & Castellan, 1988), was employed. Categorical variables were analysed using chi-square analysis. The Fisher's exact test statistic was reported for analyses where there was an expected value less than 5. Analyses were conducted using Predictive Analytics Software (PASW) Statistics Version 18 (PASW, 2009).

The data collected in 2010 was compared with data collected from comparable samples of ecstasy users from 2004 onward, recruited as part of the PDI (2003-2005), and then the EDRS (2006-2009). As each of these samples was recruited using the same methods, meaningful comparisons can be made.

Differences between proportions were analysed using Newcombe-Wilson hybrid score confidence intervals without a continuity correction, based on the chi-square distribution (Tandberg, Version 1.49, available at: http://www.cebm.net/index.aspx?o=1023, see Newcombe 1998).

2.2 Survey of key experts (KE)

The main eligibility criterion for KE participation in the EDRS was regular contact with a range of REU in the preceding six months. A small number of KE who did not have regular contact with REU were also included because they had a special area of expertise which helped contribute to the 2010 EDRS report. Regular contact was defined as average weekly contact and/or contact with 10 or more REU throughout the past six months. KE were recruited either through professional networks of project staff or recommendations, and in some instances through 'cold calls'.[5]

A total of 19 KE were interviewed in 2010, eleven were male and eight were female. KE were administered a qualitative interview schedule derived from a previous study of cocaine use (Hando, Flaherty, & Rutter, 1997), with the focus dependent on the KE's area of expertise. In general, KE were interviewed on topics relating to patterns of illicit drug use among the REU they had had contact with in the past six months. The KE interviewed for the 2010 EDRS came from a wide range of occupations which fell into three major categories: law enforcement; health care provision; and hospitality industry workers.

[4] The median value lies in the middle of a series of data points arranged in order of size, i.e. it provides a more representative view of skewed data than the mean value.

[5] People who were thought suitable to act as KE were contacted and invited to participate in a key expert (semi-structured) interview.

2.3 Other indicators

To complement and validate data collected from REU surveys and KE interviews, a range of secondary data sources were examined. These included health and law enforcement data. The pilot study for the IDRS recommended that such data should be available at least annually, include 50 or more cases, be brief, and be collected in the main study site (i.e. Sydney or NSW) (Hando, O'Brien, Darke, Maher, & Hall, 1997).

Data sources that have been included in this report are:

- National Drug Strategy Household Survey;
- Australian Crime Commission – purity data from police seizures;
- Australian Institute of Health and Welfare – inpatient hospital admissions, Australian Psychological Distress (Kessler Psychological Distress Scale - K10);
- NSW Department of Health – drug-related visits to emergency departments, number of treatment episodes by drug type and gender, overdoses and toxicology data from suspected drug users in which drugs were detected;
- NSW Bureau of Crime Statistics and Research – drug possession/use and deal/traffic incidents;
- Alcohol and Drug Information Service – calls regarding problematic drug use;
- Family Drug Support – telephone support service for family members affected by problematic drug use and for users themselves;
- Sydney Gay Community Periodic Survey; and
- NSW Police Service – clandestine methamphetamine and MDMA laboratories.

3 DEMOGRAPHICS

Summary:

- 100 REU were sampled in the 2010 EDRS (74 male and 26 female).
- Participants were young (mean age=26 years), well educated and the majority spoke English as their first language.
- Very few participants had ever been in prison (6%) or reported being currently in drug treatment (5%).
- These demographics have remained relatively stable over time aside from an increasing proportion who identify as heterosexual.

3.1 Overview of the REU participant sample

There were 100 REU sampled in the 2010 NSW EDRS. Table 1 presents the demographics of the sample across time. The mean age of the group was 26 years (median 25, range 17-46). The median age was significantly higher than that of the 2009 sample (21 in 2009 vs. 25 in 2010; *U=6,562.5, p<0.00*). Men were significantly older than women (medians 26 vs. 22, *U=613, p<0.01*). Three-quarters (74%) of the group were male. Two-thirds (65%) were born in Australia and 91% spoke English as their first language. All participants reported having some form of long-term, stable accommodation with two-thirds (64%) living in a rented house/flat and one-quarter (26%) living either with their parents or in their family house.

The majority of participants (77%) had completed high school and the median number of years of school education was 12 years (range 9-12). Many had gone on to complete either a trade or technical qualification (23%) or a university or college degree (27%) and others were currently studying, either full time (6%), or while also working (26%). More than one-fifth (28%) of the sample reported being currently employed on a full-time basis and 15% part-time while 13% were currently neither employed nor studying. Very few participants had ever been in prison (6%) or reported being currently in drug treatment (5%).

The majority of the sample identified as heterosexual (78%), 14% as gay men and smaller proportions as lesbian, bisexual or queer. Half (54%) were currently single, 40% had a partner and 4% were either married or in a de facto relationship. Participants earned a median of $500/week (range $0 - $4,231).

In past years the demographic characteristics of REU recruited for the EDRS have varied little. With the exception of 2009, the mean age has remained relatively stable, as has the gender distribution and the proportion with an English-speaking background. There appears to be an upward trend in the proportions identifying as heterosexual from 2006 onwards. Indeed, there was a significantly higher proportion of people identifying as heterosexual in 2010 than in 2008 (78% in 2010 vs 63% in 2008; 95% CI:-0.02– -0.27, *p=0.03*). Also, while the proportions reporting a tertiary qualification or current enrolment in study are variable, the proportion reporting they are currently unemployed has remained relatively stable over time. This suggests that variability in employment/study statistics are more likely to reflect changes in other demographics (such as age) rather than varying levels of social engagement. The proportions

reporting a previous conviction or current drug treatment have remained relatively low and stable over time.

Table 1: Demographic characteristics of REU sample, NSW 2004-2010

Variable	2004 (N =104)	2005 (N =101)	2006 (N =100)	2007 (N =100)	2008 (N =100)	2009 (N=100)	**2010 (N=100)**
Mean age (years)	26	26	28	27	28	22	**26**
Male (%)	60	67	68	64	68	64	**74**
English-speaking background (%)	95	95	97	95	98	94	**91**
A&TSI (%)	7	3	2	2	3	0	**1**
Heterosexual (%)	69	61	57	60	63	91	**78**
Mean number school years	12	12	11	12	12	12	**12**
Tertiary qualifications (%)	60	54	58	66	72	33	**51**
Employed full-time (%)	44	35	36	33	54	21	**28**
Full-time students (%)**	23	29	21	11	10	13	**6**
Unemployed (%)	8	15	16	17	11	13	**16**
Median weekly income ($)	Data not available until 2009					$400 ($50-$2115)	**$500 ($0-$4,231)**
Previous conviction(%)	3	6	6	4	2	3	**6**
Current drug treatment (%)	2	5	5	10	3	4	**5**

Source: EDRS regular ecstasy user interviews 2004-2010

** Question changed in 2007; number reported in 2007 refers to those in full-time education only

4 COMSUMPTION PATTERN RESULTS

4.1 Drug use history and current drug use

Summary:

- Participants had experience with a wide range of drugs; having used an average of 11 different drug types during their lifetimes and 7 different drug types over the past six months.
- One fifth of the group reported having ever injected a drug.
- Increases were seen in the lifetime and recent use of crystal, GHB, benzodiazepines, nitrous oxide, heroin and LSD.
- Reductions were seen in the recent use of mushrooms.
- Ecstasy was the main drug of choice for one-third of the sample.
- Over one-quarter of the group had recently binged on ERD for a median of 3 days (72 hours).

Participants were asked about their lifetime and recent use of over 20 different drug types[6]. Experience with a broad range of drugs was very common with an average of 11 drug types (range 5-19) ever being used and 7 (range 2-12) used within the preceding six months (Table 2). Approximately one-fifth (22%) of REU reported having ever injected a drug, significantly higher than in 2009 (9%; 95% CI: -0.03– -0.23, *p=0.02*); returning to levels comparable to those seen in 2008. A more thorough analysis of injecting drug use behaviours amongst this sample can be found in section 7.1'Injecting risk behaviour'.

Table 2 presents the proportion of REU reporting lifetime and recent drug use across time. The proportions of the sample reporting the lifetime use of alcohol, cannabis and tobacco has remained relatively constant. Significant changes from 2009 to 2010 include:

- a significant increase in the proportions reporting both the lifetime use (95% CI:-0.02 – -0.28, *p=0.04*) and recent use (95% CI:-0.02– -0.22, *p=0.03*) of crystal;
- a significant increase in the proportion reporting the lifetime use (95% CI: -0.05– -0.30, *p=0.01*) and recent use (95% CI: -0.02– -0.20, *p=0.03*) of GHB;
- a significant increase in the lifetime (95% CI: -0.03– -0.30, *p=0.02*) and recent (95% CI:-0.01– -0.26, *p=0.047*) use of benzodiazepines;
- a significant increase in both the lifetime (95% CI:-0.05– -0.30, *p=0.01*) and recent (-0.02 – -0.19, *p=0.03*) use of nitrous oxide;
- a significant increase in the lifetime (95% CI:-0.02– -0.22, *p=0.04*) and recent use of heroin (95% CI:-0.02– -0.17, *p=0.03*);
- lower recent use of mushrooms (10% in 2010 vs. 21% in 2009; 95% CI:0.21 – 0.01, *p=0.05*)
- higher lifetime use of LSD (77% in 2010 vs. 62% in 2009; 95% CI:-0.02– -0.27, *p=0.03*).

[6] 'Lifetime' usage refers to drugs that have ever been used. 'Recent' usage refers to drugs that had been used in the six months prior to the interview.

Table 2: Lifetime and recent polydrug use of REU, NSW 2004-2010

Variable	2004 (N =104)	2005 (N =101)	2006 (N =100)	2007 (N =100)	2008 (N =100)	2009 (N=100)	**2010 (N=100)**
Mean no. drug types ever used	10	11	10	11	11	11	**11**
Mean no. drug types used recently	7	7	7	7	6	7	**7**
Ever inject any drug (%)	23	27	25	32	19	9	**22**
Alcohol							
ever used (%)	100	99	98	98	99	100	**100**
used last 6 mths (%)	99	96	94	92	95	100	**97**
Cannabis							
ever used (%)	99	92	95	97	93	98	**98**
used last 6 mths (%)	85	82	73	74	71	83	**78**
Tobacco							
ever used (%)	92	82	86	92	95	95	**92**
used last 6 mths (%)	73	72	68	72	63	84	**76**
Methamphetamine powder (speed)							
ever used (%)	98	94	88	86	92	83	**79**
used last 6 mths (%)	81	76	55	45	48	37	**29**
Methamphetamine base (base)							
ever used (%)	64	63	50	54	53	51	**53**
used last 6 mths (%)	39	43	24	23	17	23	**18**
Crystal methamphetamine (crystal)							
ever used (%)	68	62	68	60	52	29	**44**
used last 6 mths (%)	46	40	56	42	33	9	**21**
Cocaine							
ever used (%)	79	76	80	88	90	85	**88**
used last 6 mths (%)	46	55	45	62	51	64	**60**
LSD							
ever used (%)	61	71	65	68	57	62	**77**
used last 6 mths (%)	20	33	17	22	18	37	**44**
MDA							
ever used (%)	54	32	42	27	30	13	**21**
used last 6 mths (%)	30	19	14	8	5	2	**2**
Ketamine							
ever used %	58	65	57	62	65	53	**64**
used last 6 mths (%)	39	39	27	36	30	19	**24**
GHB							
ever used (%)	28	32	40	37	37	24	**42**
used last 6 mths (%)	18	13	21	23	24	6	**17**
Amyl nitrite							
ever used (%)	66	65	66	65	72	74	**78**
used last 6 mths (%)	27	37	37	31	37	38	**46**
Nitrous oxide							
ever used (%)	40	44	38	36	34	27	**45**

Table 2: Lifetime and recent polydrug use of REU, NSW 2004-2010

Variable	2004 (N =104)	2005 (N =101)	2006 (N =100)	2007 (N =100)	2008 (N =100)	2009 (N=100)	**2010 (N=100)**
used last 6 mths (%)	14	13	6	14	8	5	**15**
Benzodiazepines*	53	51	47	59*	52*	47	**64**
ever used (%)	30	39	25	36*	29*	24	**38**
used last 6 mths (%)							
Antidepressants*							
ever used (%)	21	19	40	30*	26*	20	**26**
used last 6 mths (%)	3	6	20	17*	10*	10	**12**
Pharmaceutical Stimulants*	47	43	39	42	38	52	**48**
ever used (%)	14	20	7	13	10	14	**16**
used last 6 mths (%)							
Mushrooms							
ever used (%)	7	43	44	45	35	48	**60**
used last 6 mths (%)	4	6	7	9	9	21	**10**
Heroin							
ever used (%)	17	22	19	28	11	11	**23**
used last 6 mths (%)	4	4	7	6	3	3	**12**
Methadone							
ever used (%)	4	6	10	13	7	1	**8**
used last 6 mths (%)	1	4	5	10	3	0	**4**
Buprenorphine							
ever used (%)	1	1	2	8	5	2	**4**
used last 6 mths (%)	0	1	1	2	1	1	**2**
Other opiates							
ever used (%)	20	30	17	27	23	27	**39**
used last 6 mths (%)	5	20	6	11	8	2	**8**

Source: EDRS regular ecstasy user interviews 2004-2010

*Includes licitly and illicitly obtained

Participants also reported having used other drugs such as 2-CB, DMT, BZP etc. In 2010, the EDRS began to systematically investigate these other, less commonly used, drugs. This information can be found in section 4.9 'Research chemical use'.

In 2010, one-third (32%) of participants reported that Ecstasy was their main drug of choice. Other commonly reported drugs were cannabis (22%), cocaine (12%), LSD (10%) and alcohol (9%). Smaller proportions of the sample nominated other drugs such as crystal (5%), ketamine (3%), heroin (3%), base (1%), GHB (1%), benzodiazepines (1%) and mushrooms (1%).

More than one-quarter (27%) of participants reported bingeing on ecstasy and/or other related drugs over the past six months. Bingeing is defined as using the drug on a continuous basis for more than 48 hours without sleep (Ovendon & Loxley, 1996). Participants who had binged had done so on a median of 2 occasions over the preceding six months. The median length of the longest binge was 72 hours (range 49-216 hrs). Among those who had recently binged, the majority (85%) had used ecstasy during a binge episode. Similarly, the majority (74%) had used

alcohol with 67% consuming more than five standard drinks during a binge episode. Other drugs used during binge episodes included cannabis (52%), cocaine (48%), crystal (44%), speed (22%), amyl nitrite (15%), base (11%), LSD (11%), GHB (11%), ketamine (7%) and nitrous oxide (7%).

4.2 Ecstasy use

Summary:

- Ecstasy was used on a median of 12 days over the past six months (i.e. approximately fortnightly).
- Participants had used a median of 2 tablets during a 'typical' occasion of use (range 1-10).
- Swallowing was the main route of administration (92%).
- The vast majority of REU (94%) reported using other drugs in combination with ecstasy the last time they used it, most commonly alcohol, tobacco and cannabis.
- Over half the sample (57%) used other drugs to help them come down from ecstasy the last time they used it, most commonly cannabis, tobacco and alcohol.
- Ecstasy was most commonly last used at a nightclub (42%).
- Most REU (88%) felt there were some benefits associated with their use of ecstasy. Enhanced mood was that most commonly reported.
- The proportion of the NSW population who reported using ecstasy within the last twelve months rose from 0.4% in 1988 to 3.4% in 2007.
- Approximately one-third (36%) of men interviewed for the Sydney Gay Community Periodic Survey reported having recently used ecstasy. A significant decline from the previous survey.
- Key experts continued to be concerned by the practice of mixing ecstasy with alcohol and other drugs.

'Ecstasy' is a street term for a number of substances related to MDMA or 3,4-methylenedioxymethamphetamine. MDMA is classed as a hallucinogenic amphetamine. Tablets sold as ecstasy may contain a range of substances that do not include MDMA, and are more likely to contain methamphetamine, perhaps in combination with a hallucinogenic such as ketamine. They may also contain illegal chemicals like 3,4-methylenedioxyamphetamine (MDA), para-methoxyamphetamine (PMA) or 3,4-methylenedioxyethylamphetamine (MDEA) or substances such as caffeine or paracetamol or nothing at all. The results presented in this section relate to the participants' use and knowledge of tablets sold as 'ecstasy'.

On average, participants in the 2010 EDRS had used ecstasy for the first time at 18 years of age (median=17; range 14-36). Participants reported using ecstasy regularly (at least monthly) at a mean age of 20 years (median=18; range 15-42). Men and women first used ecstasy at very similar ages and no significant differences were found.

4.2.1 Ecstasy use among REU

Table 3 presents an outline of patterns of use of ecstasy among REU. Ecstasy was used on a median of 12 days (range 4-90) over the preceding six months. More than half the sample had used ecstasy between monthly and fortnightly (55%), one-quarter (25%) had used it between fortnightly and weekly and 16% had used ecstasy more than once a week over the preceding six months.

The vast majority (84%) of respondents commonly used more than one tablet during a session. REU had used a median of 2 tablets during a 'typical' occasion of use (range 1-10) over the preceding six months. The median number of tablets consumed in the 'heaviest' session over the preceding six months was 4 (range 1-30).

Almost all REU reported that swallowing was their main route of administration (92%) for ecstasy, however, 7% reported mainly snorting it and 1% reported mainly injecting it. Participants were asked to identify each method of administration they had used over the preceding six months for ecstasy 'pills'. Swallowing (97%) and snorting (65%) were by far the most common methods of administration although smaller proportions had shelved/shafted (4%), injected (4%) or smoked (1%) ecstasy.

Table 3: Patterns of ecstasy use among REU, NSW 2004-2010

Variable	2004 (N= 104)	2005 (N= 101)	2006 (N= 100)	2007 (N= 100)	2008 (N= 100)	2009 (N= 100)	**2010 (N= 100)**
Mean age first used ecstasy (years)	20	20	18	19	20	17	**18**
Ecstasy 'favourite' drug (%)	59	38	44	38	30	45	**32**
Median days used ecstasy last 6 mths	20	15	15	12.5	12	15	**12**
Use ecstasy weekly or more (%)	42	40	19	21	19	24	**18**
Median ecstasy tablets in 'typical' session	2	2	2	2	2	2.5	**2**
Typically use >1 tablet (%)	84	77	69	84	82	91	**84**
Recently binged on ecstasy (%)	28	41	41	36	30	33	**26**
Ever injected ecstasy (%)	10	13	11	15	8	5	**11**
Mainly swallowed ecstasy last 6 mths (%)	98	92	100	97	100	96	**92**
Mainly snorted ecstasy last 6 mths (%)	1	6	-	2	-	3	**7**
Mainly injected ecstasy last 6 mths (%)	1	2	-	1	-	1	**1**

Source: EDRS regular ecstasy user interviews 2004-2010

Participants were asked about their use of different forms of ecstasy (tablets, powder and capsules). Almost every participant reported having used ecstasy tablets ('pills') during the

preceding six months. Approximately one-third (32%) reported having ever used ecstasy powder; however, only 7% had done so recently. Just under three-quarters (72%) reported having ever used ecstasy capsules ('caps') and 35% had used them over the preceding six months. Pills were first used at a median age of 17 years (range 14-39), powder at 19 years (range 14-35) and caps at 19 years (14-43).

The vast majority of REU (94%) reported using other drugs in combination with ecstasy the last time they used it. The drugs most commonly used with ecstasy were alcohol (85% of those who reported last using other drugs with ecstasy; i.e. 13% less than 5 standard drinks and 72% more than five standard drinks), tobacco (61%), cannabis (42%), cocaine (17%), speed (11%) and amyl nitrite (11%).

Over half the sample (57%) used other drugs to help them come down from ecstasy the last time they used it. Among these respondents, the three most commonly reported drugs used to come down from ecstasy were cannabis (80%), tobacco (38%) and alcohol (21% overall; 7% less than five standard drinks and 14% more than five standard drinks).

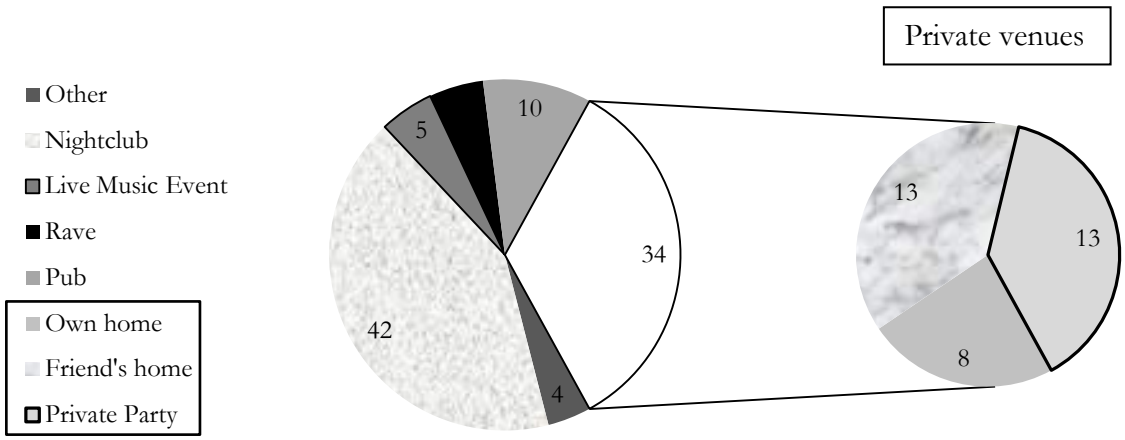
Among participants who had consumed alcohol on their last occasion of ecstasy use, 44% reported they consumed about the same number of alcoholic drinks as they usually would and equal proportions reported having consumed more (28%) and less (28%) alcohol than usual.

More than half of the sample reported that most (47%) or all (6%) of their friends had used ecstasy over the last six months. One-third (33%) reported that 'about half' and 14% that 'a few' of their friends had used ecstasy recently. Interestingly, no participants reported that they were the only person in their social network who had recently used ecstasy.

4.2.2 Locations of ecstasy use

Participants were asked where they spent the most time while intoxicated, the last time they used ecstasy. Ecstasy was most commonly last used in public venues (62%) although one-third of participants reported last using ecstasy in private venues (34%). Ecstasy was most commonly last used at a nightclub (42%).

Figure 1: Location of last ecstasy use, NSW 2010



Source: EDRS regular ecstasy user interviews 2010

4.2.3 Benefits of ecstasy use

In 2010, participants were asked whether they perceived there to be any benefits associated with their use of ecstasy and if so, to identify the three biggest benefits. Very similar data were collected in the PDI (subsequently the EDRS) between 2003 and 2006 and also in 2009. The interested reader is directed to the EDRS website where these reports are freely available for comparison (http://ndarc.med.unsw.edu.au/NDARCWeb.nsf/page/EDRS).

As in previous years, the large majority of participants (88%) felt there were some benefits associated with their use of ecstasy. Enhanced mood was the most commonly reported benefit (43% of respondents). This was followed closely by enhanced communication, having fun and enhanced closeness/bonding with others.

Over time, there appears to be an increase in REU reporting they use ecstasy for increased energy or to stay awake, and a decrease in participants reporting they use ecstasy to improve their confidence or for enhancing sexual experiences.

Table 4: Perceived benefits of ecstasy use, NSW 2004-2010

Variable	2004 (n=97)	2005 (n=101)	2006 (n=85)	2009* (n=100)	**2010 (n=88)**
Enhanced mood (e.g. euphoria/wellbeing/happiness)	32	43	24	(51)	**43**
Enhanced communication/talkativeness/more social	38	30	20	(17)	**41**
Fun (enjoyable night/good time)	34	39	28	(18)	**39**
Enhanced closeness/bonding/empathy with others	24	53	35	25	**35**
Increased energy/stay awake	24	16	11	(15)	**30**
The high/rush/buzz	7	15	6	50	**19**
Enhanced appreciation of music and/or dance	10	15	15	36	**16**
Drug effects (e.g. hallucinations/insight/creativity/heightened senses)	5	10	23	30	**10**
Relax/escape/release	13	14	10	(17)	**9**
Different to effects of alcohol (non-violent/safer environment/no hangover)	7	-	-	-	**8**
Increased confidence/decreased inhibitions	27	22	20	-	**7**
Cheap	4	3	3	-	**6**
Feeling in control/focussed	4	2	-	(6)	**5**
Enhanced sexual experience	9	16	13	9	**3**
Other	24	-	-	-	**17**

Source: EDRS regular ecstasy user interviews 2010

* As this question was worded differently in 2009, data in brackets represents data which was similarly worded or expressed a very similar idea

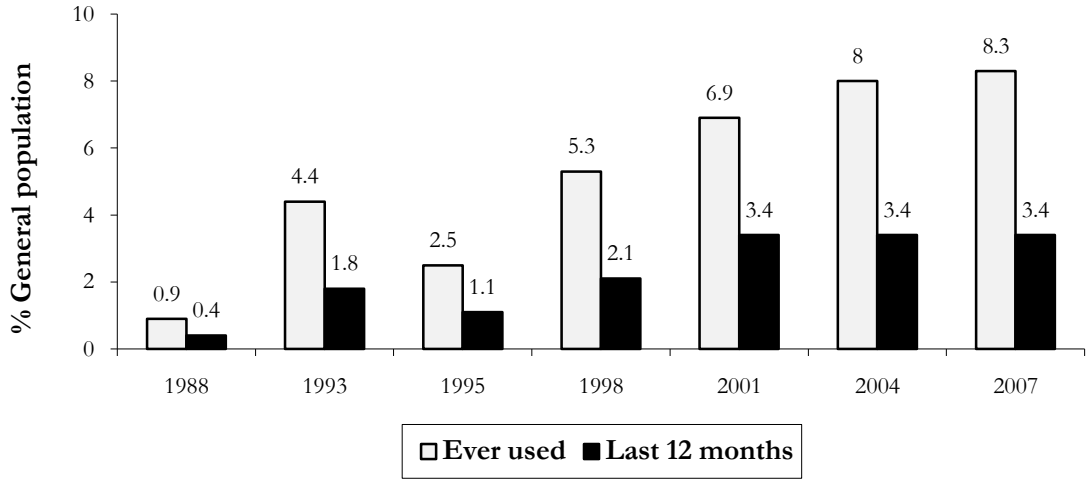
4.2.4 Use of ecstasy in other populations

General population

Figure 2 presents data collected for the National Drug Strategy Household Survey (NDSHS) from 1988 (the year in which ecstasy was first included in the survey) to 2007. Over this time, the reported lifetime prevalence of ecstasy use among the general Australian population (aged 14 years and over) increased from 1% in 1988 to 8.9% in 2007. Similarly, the proportion of the general population who reported using ecstasy in the preceding 12 months increased slightly from 1% in 1988 to 3.4% in 2007 (Australian Institute of Health and Welfare, 2008a).

Comparable to national prevalence, lifetime ecstasy use was reported by 8.3% of the NSW population aged 14 years and over in 2007, a rise from 0.9% in 1988. There has been a corresponding rise in the proportion of the NSW population who reported using ecstasy within the last twelve months from 0.4% in 1988 to 3.4% in 2007 (Australian Institute of Health and Welfare, 2008b).

Figure 2: Lifetime and recent ecstasy use in the NSW general population, 1988-2007



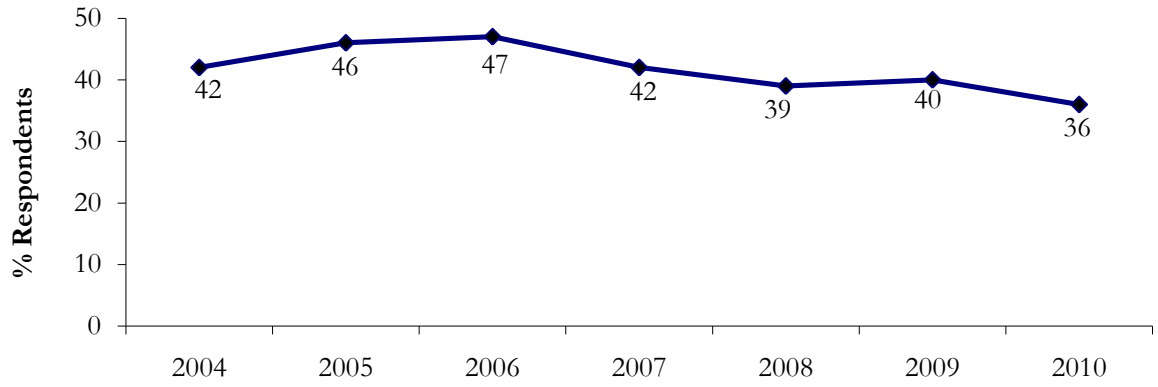
Source: National Drug Strategy Household Survey (Australian Institute of Health and Welfare, 1999, 2002b, 2002c, 2005a, 2005b, 2008a, 2008b)

Sydney Gay Community Periodic Survey

The Sydney Gay Community Periodic Survey is a biannual cross-sectional survey of gay and homosexually active men. The first survey was conducted in February 1996 and the most recently published survey was completed in February 2010 with 2,719 men participating. The major aim of the survey is to provide data on levels of sexual-, STI- and HIV-related practices, though the survey also asks about drug use in the past six months.

Figure 3 shows the proportion of men surveyed that had used ecstasy in the past six months. In 2010, approximately one-third (36%) of the sample reported having recently used ecstasy. The authors reported that, since the previous survey, there had been a significant decline in the reported use of ecstasy; which was continuing a generally declining trend from 2004 (42%) (Lee, et al., 2010)

Figure 3: Proportion of gay men in Sydney reporting recent ecstasy use, 2004-2010



Source: Sydney Gay Community Periodic Survey 2010

Key expert comments

KEs reported that ecstasy continues to be used by people across a wide age range (e.g. high school aged to mid-40s) although it appears to be more concentrated toward the younger age range i.e. 18-30. Health KE noted that female REU were more likely to present to their services although they believed the use of ecstasy was fairly even across gender. KE had observed a "take it or leave it" attitude among some REU toward ecstasy over the past 6-12 months and one reported that "people sometimes don't bother with E [ecstasy] any more" (due to its low purity at the moment). Several KE also commented on the widespread practice of mixing other drugs (including alcohol, amyl nitrite, methamphetamines, cocaine and cannabis) with ecstasy. Several KE reported that REU who had mixed drugs were more problematic both from a health perspective (i.e. more likely to require care) and a behavioural perspective (i.e. if using ecstasy and alcohol, more likely to become aggressive rather than if taking ecstasy alone). Finally, a few KE noted the relatively low cost of ecstasy when compared with alcohol and other drugs (such as cocaine).

4.3 Methamphetamine use

Summary:

Speed

- Eight-in-ten had ever used speed and 29% had done so recently.
- Speed was used on a median of 2 days over the preceding six months and was primarily snorted (90%).
- The frequency of use appeared to be in decline.

Base

- Half the sample had ever used base and one-fifth had done so recently.
- Base was used on a median of 2 days over the preceding six months and was primarily swallowed (67%).
- The quantities used declined in 2010 for the first time in four years.

Crystal

- Two-fifths of the sample had ever used crystal and one-fifth had done so recently.
- Crystal was used on a median of 3 days over the preceding six months and was primarily smoked (76%).
- The frequency of use of crystal had fluctuated over time although the quantities had remained stable.

- Methamphetamines were most commonly used in private settings, aside from speed which was also commonly used in nightclubs.
- There appears to have been an overall decline in the use of methamphetamine from 1998 (3.8%) to 2007 (1.8%) among the NSW general population.
- The use of speed and crystal by respondents in the Sydney Gay Community Periodic Survey has been in decline since 2004.
- KE generally agreed that speed and base were becoming less common while crystal was still used by REU.

Throughout the 1990s, the proportion of amphetamine-type substance seizures that were methamphetamine (rather than amphetamine sulphate, the form most commonly available throughout the 1980s) steadily increased, until methamphetamine dominated the market (Australian Bureau of Criminal Intelligence, 2001). In the financial year 2000/01, the vast majority (91%) of all seizures of amphetamine were methamphetamine hydrochloride (Australian Bureau of Criminal Intelligence, 2002). In the 2008/09 financial year, no amphetamine seizures were analysed by NSW Police, only methamphetamine seizures (Australian Crime Commission, 2009).

Chemically, amphetamine and methamphetamine differ in molecular structure but are closely related. They exert their effects indirectly by stimulating the release of peripheral nervous system (PNS) and central nervous system (CNS) monoamines (principally dopamine, noradrenaline,

adrenaline and serotonin), and both have psychomotor, cardiovascular, anorexogenic and hyperthermic properties (Seiden, Sobol, & Ricaurte, 1993). Compared to amphetamine, methamphetamine has proportionally greater CNS than PNS stimulatory effects (Chesher, 1993), and is a more potent form with stronger subjective effects.

In Australia today, the powder traditionally known as 'speed' is almost exclusively methamphetamine. The more potent forms of this family of drugs, known by terms such as ice, shabu, crystal meth, base and paste are also methamphetamine.

The distinction between methamphetamine powder ('speed'), methamphetamine base ('base') and crystalline methamphetamine ('crystal') has been made in an attempt to collect more comprehensive information on the use, price, purity and availability of each of these different forms. 'Speed' is typically manufactured in Australia and ranges in colour from white to yellow, orange, brown or pink, due to differences in the chemicals used to produce it. It is usually of relatively low purity (approximately 10%) (McKetin, McLaren, & Kelly, 2005). 'Base' (also called paste, wax, point or pure) is thought to be an oily or gluggy, damp, sticky, powder that often has a brownish tinge. Base is also thought to be manufactured in Australia; its purity has been found to be approximately twice that of speed (21%) (McKetin, et al., 2005). The crystal form (also called ice, shabu, or crystal meth) is large crystals that range from translucent to white but may also have a green, blue or pink tinge due to either impurities or the addition of food dye. Crystal is predominantly manufactured in Asia and imported into Australia (L. Topp & Churchill, 2002), although the first crystalline methamphetamine laboratory was detected in Queensland in February 2002 (Australian Crime Commission, 2003). Pure crystal has an estimated purity of 80%. A form of methamphetamine with a crystalline appearance has been detected which has a lower purity (19%); this lower purity crystalline methamphetamine may reflect either methamphetamine base with a crystalline appearance or crystal methamphetamine cut with crystalline adulterants (McKetin, et al., 2005).

4.3.1 Methamphetamine use among REU

Methamphetamine powder (speed)

Approximately eight out of ten participants (79%) had ever used speed and just over one-quarter (29%) of the sample had used it during the preceding six months. Speed was first used at a median age of 18 years (range 8-33). Speed was used on a median of 2 days (range 1-30) over the preceding six months. The vast majority (93%) of those who had recently used speed had done so on a less than monthly basis.

Most recent users quantified their use in terms of 'grams' (n=16) or 'lines' (n=10). The median amount used in a 'typical' or 'average' use episode in the preceding six months was either 1 gram (range 0.3-2) or 2 lines (range 1-3). The median amount used in the 'heaviest' use episode was very similar, either 1 gram (range 0.3-7) or 2 lines (range 1-4). The most common route of administration for speed users in the preceding six months was snorting (90%); however, other routes of administration included swallowing (48%), smoking (7%) and injecting (7%).

There was no significant change in the proportions reporting the lifetime or recent use of speed from 2009 to 2010. However, the frequency of use has appeared to have declined consistently from 2007 to 2010 as the median days of use over the preceding six months has fallen from 6

(i.e. monthly use) to 2 (i.e. use every three months). While the frequency of use appears to be in decline, the median amounts used have remained stable for the past three years (Table 5).

Table 5: Patterns of speed use among REU, NSW 2004-2010

Speed variable	2004 (N =104)	2005 (N =101)	2006 (N =100)	2007 (N =100)	2008 (N =100)	2009 (N=100)	**2010 (N=100)**
Ever used (%)	98	94	88	86	92	83	**79**
Recently used (%)	81	76	55	45	48	37	**29**
Of those who had used: Median days used last 6 mths (range)	6 (1-96)	6 (1-96)	5 (1-180)	6 (1-90)	4 (1-120)	3 (1-30)	**2 (1-30)**
Median quantities used* (grams) Typical (range)	0.75 (0.1-3.5)	1 (0.2-6)	1 (0.5-3)	0.50 (0.25-2)	1 (0.2-2)	1 (0.2-2)	**1 (0.3-2)**
Heavy (range)	1.5 (0.15-7)	2 (0.3-12)	1.75 (0.50-6)	1 (0.5-3.5)	1 (0.2-4)	1 (0.25-3.5)	**1 (0.3-7)**

Source: EDRS regular ecstasy user interviews 2004-2010

Methamphetamine base

Approximately half the sample (53%) had ever used base and just under one-fifth (18%) had used it over the preceding six months. The median age at which base was first used was 19 years (range 13-38). Base had been used on a median of 2 days (range 1-18) over the preceding six months. The majority (77%) of those who had recently used base had done so less than monthly, although 18% had used it between monthly and fortnightly.

Most recent users of base quantified their use in terms of 'points'; however, small proportions also referred to grams and bumps. Although it is likely that the actual weight of 'points' varies slightly, it is commonly understood that one 'point' is equal to approximately 0.1 grams. Those referring to points used a median of 1 points (range 0.5-2) in a 'typical' session and a median of 1.25 points (range 0.5-3) during the heaviest occasion of use over the preceding six months. Base was most commonly swallowed (67%); however, 33% of recent users reported having injected, 28% having snorted and 6% having smoked it.

Table 6 presents trends across time in certain indicators of base use. The proportions reporting the lifetime and recent use of base have remained stable from 2009 to 2010 as has the number of days of use. However the median quantities used in both average sessions and in the heaviest episode of recent use have both declined for the first time in four years.

Table 6: Pattern of base use among REU, NSW 2004-2010

Base variable	2004 (N=104)	2005 (N=101)	2006 (N=100)	2007 (N 100)	2008 (N=100)	2009 (N=100)	**2010 (N=100)**
Ever used (%)	64	63	50	54	53	51	**53**
Used last six months (%)	39	43	24	23	17	23	**18**
Of those who had used:							
Median days used last 6 mths (range)	5 (1-36)	3 (1-96)	3.5 (1-180)	5 (1-90)	2 (1-120)	2 (1-96)	**2 (1-18)**
Median quantities used (points):							
Typical (range)	2 (0.5-4)	1.5 (0.25-9)	1 (0.50-3)	2 (0.50-5)	2 (1-5)	2 (0.3-4)	**1 (0.5-2)**
Heavy (range)	2 (0.5-10)	2.25 (0.25-25)	1 (0.50-7)	2 (0.50-5)	2 (1-5)	2 (0.5-6)	**1.25 (0.5-3)**

Source: EDRS regular ecstasy user interviews 2004-2010

Crystal methamphetamine

Approximately two-fifths (44%) of the sample had ever used crystal, and one-fifth (21%) had used it over the six months prior to the interview. The median age of first use of crystal was 23 years (range 16-40). Crystal was used on a median of 3 days (range 1-20) over the preceding six months. More than half (57%) of those who had recently used crystal had done so on a less than monthly basis, while 38% had used it between monthly and fortnightly.

The majority of respondents quantified their use in terms of 'points' (generally believed to be 0.1 grams). These participants reported using a median of 1 point (range 0.5-7) during 'typical' sessions of use and a median of 3 points (range 0.5-10) on the heaviest episode of crystal use over the preceding six months. As in previous years, smoking was the most common route of administration for crystal (76%) followed by injecting (38%) and swallowing (33%).

Table 7 presents trends over time in indicators of crystal use among REU. From 2009 to 2010 there has been a significant increase in the proportions reporting both the lifetime use (95% CI:-0.02– -0.28, *p=0.04*) and recent use (95% CI:-0.02– -0.22, *p=0.03*) of crystal. However, 2009 appeared to be an anomalous year relative to those preceding it, and these proportions were comparable to those reported in 2008. While the frequency of use has fluctuated over time, the quantities used in a typical session have remained relatively stable.

Table 7: Patterns of crystal use among REU, NSW 2004-2010

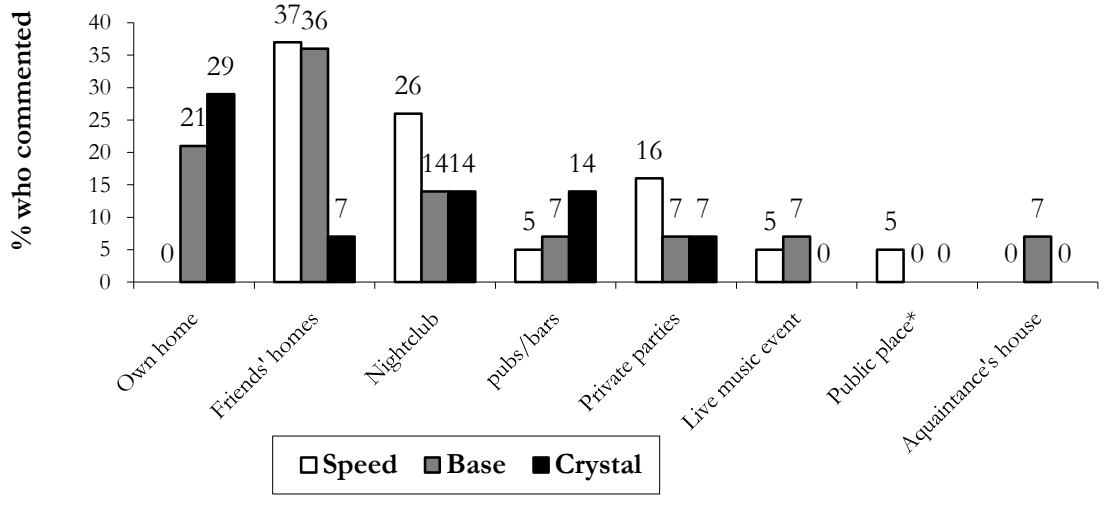
Crystal variable	2004 (N=104)	2005 (N=101)	2006 (N=100)	2007 (N 100)	2008 (N=100)	2009 (N=100)	**2010 (N=100)**
Ever used (%)	68	62	68	60	52	29	**44**
Used 6 months (%)	46	40	56	42	33	9	**21**
Of those who had used: Median days used last 6 mths (range)	6 (1-120)	4 (1-72)	6 (1-180)	9 (1-180)	6 (1-170)	12 (1-48)	**3 (1-20)**
Median quantities used (points): Typical (range)	1 (0.25-8)	1 (0.3-6)	1 (0.5-4)	1 (0.25-3)	1.75 (0.5-3)	1 (1-5)	**1 (0.5-7)**
Heavy (range)	2 (0.5-12)	2 (0.3-10)	2 (0.5-0.7)	3 (.25-15)	2 (1-6)	3.5 (1-5)	**3 (0.5-10)**

Source: EDRS regular ecstasy user interviews 2004-2010

4.3.2 Locations of methamphetamine use

Most participants who had recently used speed reported that they had last used it at a friend's home (37%), at a nightclub (26%) or at a private party (16%). Among the fourteen participants who reported on the location of their last use of base, the majority had used it in a private setting such as their friend's home (36%) or their own home (21%). Among those who reported on the locations at which they had last used crystal (n=14), 50% had last used it at either: their own home, their dealer's home, a friend's home or at a private party. Over one-fifth (29%) had last used crystal in a public venue such as a nightclub or a pub (Figure 4).

Figure 4: Last location methamphetamine use by form, NSW 2010. #



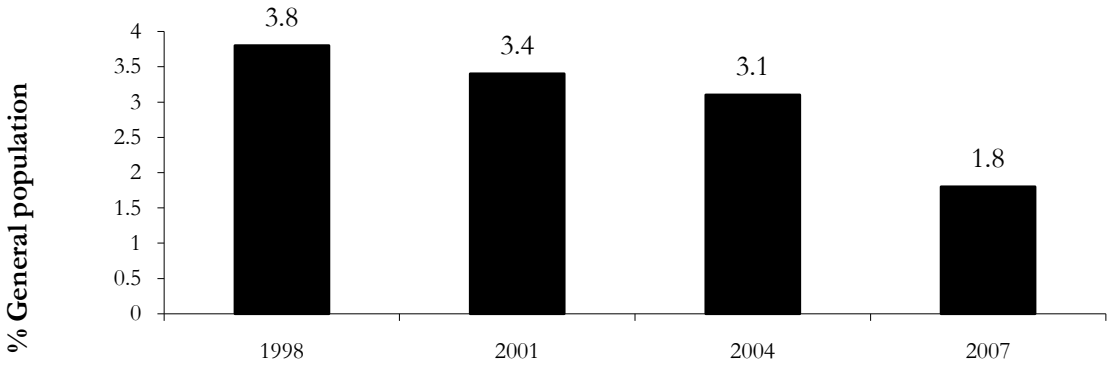
Source: EDRS regular ecstasy user interviews 2010
 # Speed n=19, Base n=14, Crystal n=14

4.3.3 Meth/amphetamine use in other populations

General population

Figure 5 shows the proportion of the general population in NSW (aged 14 years and over) who reported having recently used any form of meth/amphetamine. This figure decreased from 3.1% in 2004 to 1.8% in 2007. There appears to have been an overall decline in the use of meth/amphetamine from 1998 (3.8%) to 2007 (1.8%).

Figure 5: Recent* meth/amphetamine use in the NSW general population, 1998-2007



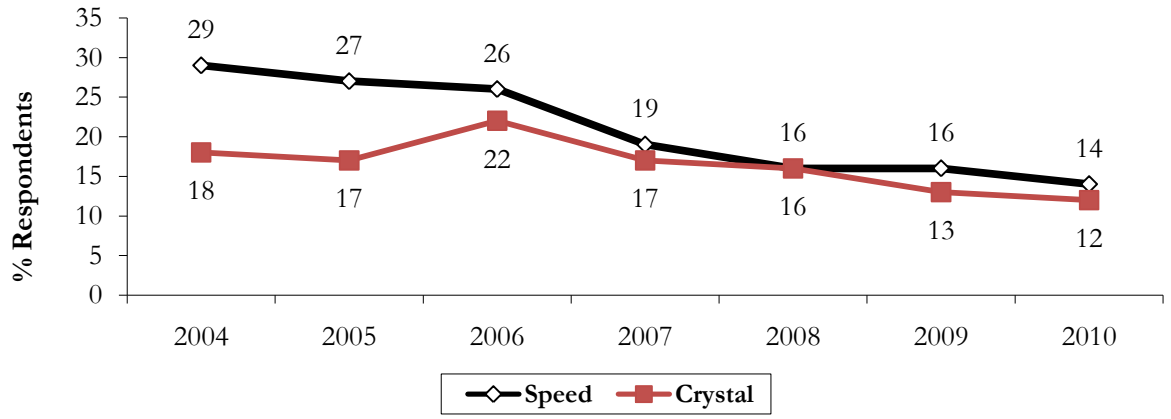
Source: Fitzsimmons & Cooper-Stanbury (2000); Australian Institute of Health and Welfare (2002a, 2005c, 2008a).

*** Used in the last 12 months**

Sydney Gay Community Periodic Survey

The Sydney Gay Community Periodic Survey (Figure 6) shows the proportion of gay men surveyed that had used speed and crystal in the past six months. In 2010, fourteen percent of the men interviewed had used speed and 12% had used crystal. The authors reported that the use of both speed and crystal had decreased significantly since 2004 (Lee, et al., 2010).

Figure 6: Proportion of gay men in Sydney reporting recent speed and crystal use, 2004-2010



Source: Sydney Gay Community Periodic Survey, 2010

Illicit Drug Reporting System

A separate monitoring system investigating trends in the use of methamphetamine in injecting drug users has been conducted in NSW since 1996, in Victoria (VIC) and South Australia (SA) since 1997 and nationally since 2000. This is called the Illicit Drug Reporting System, or IDRS, and reports and bulletins are available from the NDARC website (**Error! Hyperlink reference not valid.**).

Key expert comments

KE generally agreed that speed and base were substantially less common than crystal among Sydney REU. A few KE said they had heard less about people injecting crystal and more about people smoking it. One KE suggested that this may be due to users hearing that "there is no point injecting [crystal] because smoking is a similar experience". Several KE referred to there being less stigma associated with using crystal now; and observed that in some circles it was associated with being "cool" and "seen as a bit glamorous". Some KE also discussed the use of crystal among specific groups including gay male sex workers and lesbians. KE observed that crystal was also more common at certain types of venues/events where there was greater stigma associated with looking "out of it" or "trashy" and greater emphasis on being in control.

4.4 Cocaine use

Summary:

- The majority of the group (88%) had tried cocaine at least once, and three-fifths had used it recently.
- Cocaine was used on a median of 4.5 days (i.e. less than monthly) over the preceding six months.
- The proportions using cocaine, the frequency and quantities used had all remained stable from 2009 to 2010.
- Recent use of cocaine among the NSW general population remained low.
- From 2004 to 2010 there had been a significant increase in the use of cocaine among participants of the Sydney Gay Community Periodic Survey.
- Key experts reported that although cocaine continued to be expensive, it was being used by an increasingly diverse group.

Cocaine is a stimulant, like methamphetamine. Cocaine is a colourless or white crystalline alkaloid. Cocaine hydrochloride, a salt derived from the cocoa plant, is the most common form of cocaine available in Australia ('crack' cocaine is most prevalent in North America and infrequently encountered in this country) (Australian Crime Commission, 2008). 'Crack' is a form of freebase cocaine (hydrochloride removed) which is particularly pure.

Street cocaine is usually 'cut' or diluted with other substances, some which mimic the taste or appearance of cocaine. There is not a great deal of information on the adulterants found in street cocaine, but lidocaine, glucose, lactose, baking soda and even talcum powder have been found. More recently, information has become available suggesting that Columbian-run cocaine laboratories have been adding levamisole to cocaine hydrochloride (Casale, Corbeil, & Hays, 2008). Levamisole is an antihelminthic[7] drug used mainly in veterinary medicine and a known cause of agranulocytosis (Centers for Disease Control and Prevention, 2009). Agranulocytosis is an acute condition involving a severe reduction in a person's white blood cell count which can leave them at a very high risk of serious infection. There is evidence that levamisole has been recently found in Australian cocaine samples (Australian Federal Police, 2006).

Almost nine out of ten (88%) regular ecstasy users in 2010 had ever used cocaine, and almost three-fifths of the sample (60%) had used it during the six months prior to the interview. The median age at which cocaine was first used was 19.5 years (range 13-34).

4.4.1 Cocaine use among REU

Participants who had used cocaine over the preceding six months had done so on a median of 4.5 days (range 1-100). Approximately half of recent users (58%) had used cocaine on a less than monthly basis and 28% had used it between monthly and fortnightly. The majority of recent cocaine users quantified their use in terms of grams. The median amount used during a 'typical' occasion of use was 0.5 grams (range 0.2-3) and that used on the heaviest occasion was 1 gram

[7] Drugs which expel parasitic worms from the body .

(range 0.25-7). Nine recent users quantified their use of cocaine according to 'lines'. These participants reported using a median of 3 lines (1-4) in a 'typical' session. The vast majority (93%) of recent users of cocaine reported having snorted it over the preceding six months. A significant proportion of recent users of cocaine (22%) reported having swallowed it, smoked it (15%) and injected it (13%) during this time.

Table 8 presents data across time on the prevalence, frequency and quantity of cocaine use among REU interviewed in NSW. The number of participants reporting the lifetime and recent use of cocaine has remained relatively stable from 2009 to 2010. The frequencies of use and quantities used have also remained stable.

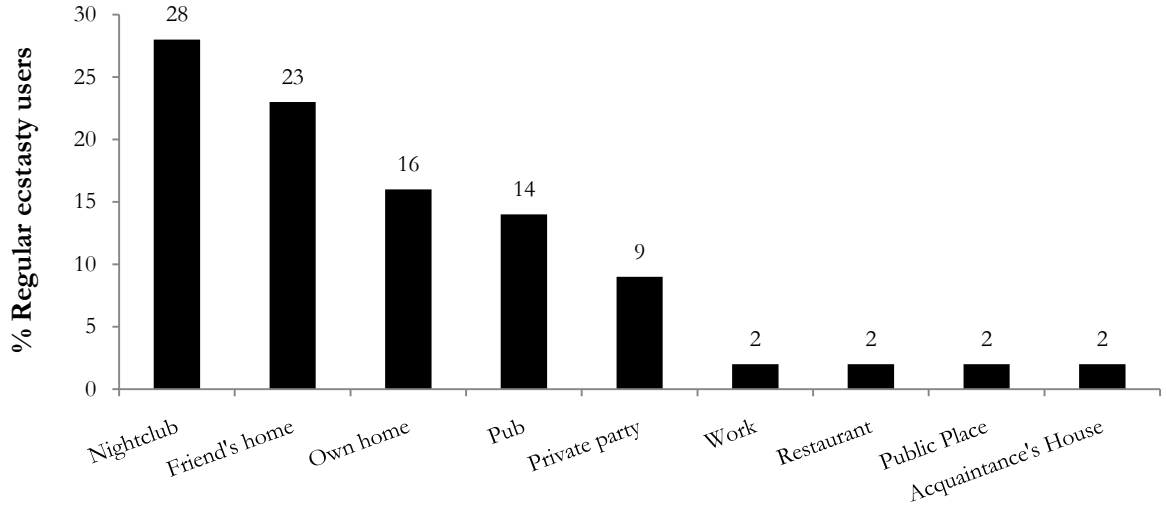
Table 8: Patterns of cocaine use of REU, NSW 2004-2010

Cocaine variable	2004 (N=104)	2005 (N=101)	2006 (N=100)	2007 (N=100)	2008 (N=100)	2009 (N=100)	**2010 (N=100)**
Ever used %	79	76	80	88	90	85	**88**
Used last 6 mths %	46	55	45	62	51	64	**60**
Of those who had used:							
Median days used last 6 mths (range)	3 (1-48)	2.5 (1-84)	2 (1-14)	4 (1-48)	5 (1-90)	3 (1-30)	**4.5 (1-100)**
Median quantities used (grams):							
Typical (range)	0.5 (0.13-2.5)	1 (0.25-10)	1 (0.25-2)	0.5 (0.25-3)	0.5 (0.25-2)	0.5 (0.1-2.5)	**0.5 (0.2-3)**
Heavy (range)	1 (0.13-4)	1 (0.25-12)	1 (0.25-3)	1 (0.25-7)	1 (0.5-5)	1 (0.25-5)	**1 (0.25-7)**

Source: EDRS regular ecstasy user interviews 2004-2010

Among those who commented (n=43), 28% reported last having used cocaine at a nightclub, 23% at a friend's home, 16% at their own home, 14% at a pub, 9% at a private party and smaller proportions in other venues (Figure 7).

Figure 7: Last location of cocaine use, NSW 2010



Source: EDRS regular ecstasy user interviews 2010

4.4.2 Cocaine use in other populations

General population

Recent cocaine use appeared to have increased slightly in the general population from 1.2% in 2004 to 2% in 2007; however, it remained relatively low (Figure 8).

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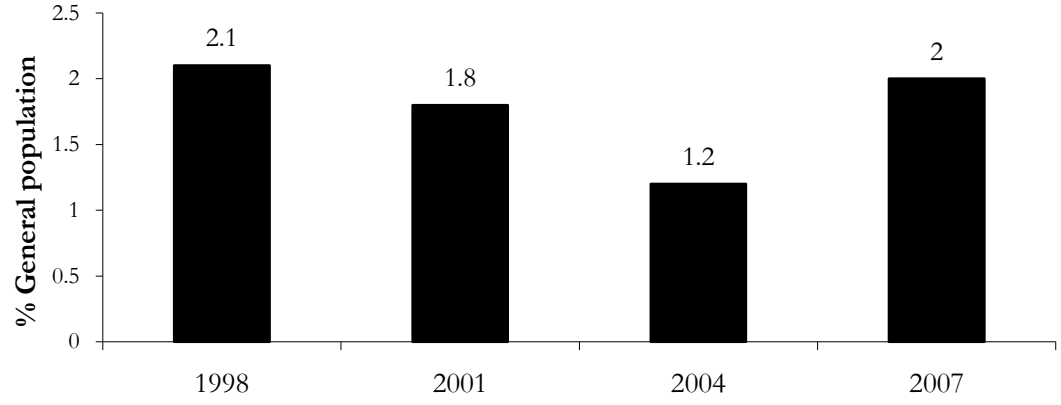
Figure 8: Recent* cocaine use in the NSW general population, 1998-2007

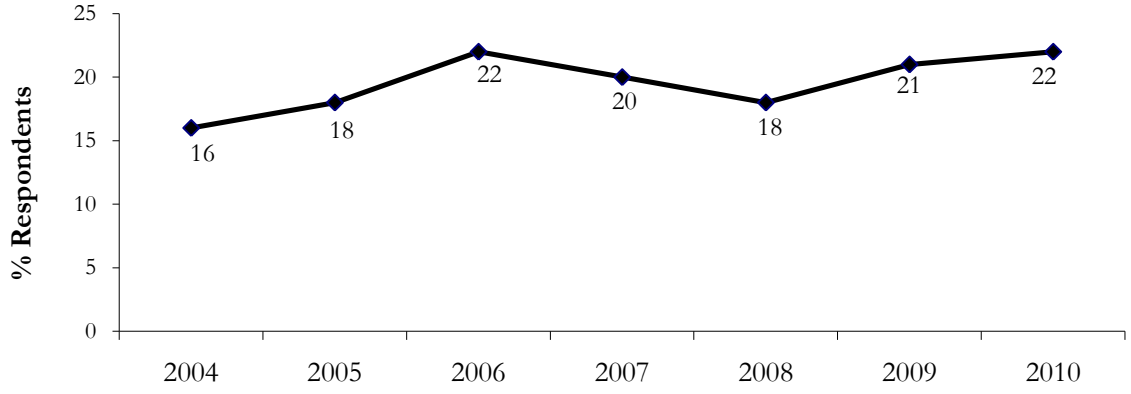


Source: Fitzsimmons & Cooper-Stanbury (2000); Australian Institute of Health and Welfare (2002a, 2005c, 2008a)
*** Used in the last 12 months**

Sydney Gay Community Periodic Survey

In February 2010, approximately one-fifth of gay men interviewed for the survey reported the recent use of cocaine (Figure 9). The authors reported a significant increase in the use of cocaine across time from 2004 to 2010 (Lee, et al., 2010).

Figure 9: Proportion of gay men in Sydney reporting recent cocaine use, 2004-2010



Source: Sydney Gay Community Periodic Survey, 2010

Illicit Drug Reporting System

A separate monitoring system investigating trends in the use of cocaine in injecting drug users has been conducted in NSW since 1996, VIC and SA since 1997 and nationally since 2000. This is called the Illicit Drug Reporting System, or IDRS, and reports and bulletins are available from the NDARC website (http://notes.med.unsw.edu.au/NDARCWeb.nsf/page/IDRSa).

Key expert comments

Several KE were able to comment on the use of cocaine among REU. Most agreed that although cocaine continues to be "hideously expensive" the purity remains good compared with other drugs on the market. Many KE also observed that cocaine was being used among a wider demographic although probably used at a lower frequency among people of a lower socio-economic status (SES) background. Cocaine was generally thought to be purchased in powder form and snorted among REU. A few KE commented that it is less likely to see cocaine used at festivals and more likely at private parties. One law KE observed that with increasing distribution by lower SES dealers, distribution networks are becoming wider and supply chains longer possibly leading to greater availability of cocaine outside of the tight-knit networks of high-end users. This account fits well with the description of increased access to, and interest in, cocaine among Sydney REU who don't necessarily fall exclusively in the high SES category. KE agreed that cocaine continues to be seen as a glamorous drug despite becoming more accessible.

4.5 Ketamine Use

Summary:

- Two-thirds of the sample had tried ketamine at least once and one-quarter had used it recently.
- Ketamine was used on a median of 2.5 days (i.e. less than monthly) over the preceding six months.
- There was a slight decrease in the quantities used from 2009 to 2010.
- Recent use of ketamine among the NSW general population remained low and stable.
- From 2004 to 2010 there had been a significant decline in the use of ketamine among participants of the Sydney Gay Community Periodic Survey.
- Key experts reported that they had not heard much about ketamine over the past 6 to 12 months.

Ketamine is a rapid acting, dissociative anaesthetic that is used in veterinary surgery and less commonly in human surgery. Ketamine is a liquid that can be injected for legitimate use. It is typically converted into a fine powder through evaporation, and is typically snorted. Ketamine can also be made into tablets, capsules and tabs which are usually swallowed. Common names for ketamine include K, special K or vitamin K.

Ketamine produces a dissociative state in the user, commonly eliciting an out-of-body experience. It has a combination of stimulant, depressant, hallucinogenic and analgesic properties. Too much ketamine can result in the user having a 'near death experience' or falling into a 'K hole'.

As ketamine is complicated to manufacture, and precursor chemicals are difficult to obtain, it is unlikely that it is produced in clandestine laboratories. The majority of ketamine used by REU is probably diverted from veterinary sources or imported from overseas, making supply irregular compared with other illicit substances (Australian Crime Commission, 2008, 2009, 2010).

Almost two-thirds (64%) of the 2010 sample of regular ecstasy users reported having ever used ketamine and approximately one-quarter (24%) had done so recently. Ketamine was first used at a median age of 21 years (range 15-39).

4.5.1 Ketamine use among REU

Among REU who had recently used ketamine, the majority (63%) had done so on a less than monthly basis although one-quarter had done so between monthly and fortnightly. Nine of the 24 recent users of ketamine reported their use in terms of 'bumps'[8]. They reported a median of 3

[8] A bump refers to a small amount of powder, typically measured and snorted from the end of a key, the corner of a plastic card or a 'bumper'. A bumper is a small glass nasal inhaler, purchased from tobacconists, used to store and administer powdered substances such as ketamine.

bumps (range 1-12) on a typical occasion of use and 3 bumps (range 1-12) on the heaviest occasion of use over the preceding six months. Other common units included grams (n=6) and lines (n=6). These respondents reported using a median of 0.75grams (range 0.5-1) or 2 lines (range 1-6) in an average session of use respectively. Quantities used during the heaviest episode of use were 1gram (range0.5-4) and 2 lines (range 1-3) respectively[9].

The most common route of administration for ketamine was snorting (96%). Eleven participants were able to comment on the locations of use of ketamine. Ketamine was most commonly last used in private settings such as at the participant's home, a friend's home, a dealer's home or a private party (n=7) although some participants had also used it in a nightclub (n=4).

Table 9 presents data across time regarding patterns of ketamine use among REU interviewed in the EDRS. The proportions reporting the lifetime and recent use of ketamine had remained relatively stable from 2009 to 2010. The frequency of use also remained fairly stable however, there was a slight decrease in the amounts used in both typical sessions and heavy episodes of use.

Table 9: Patterns of ketamine use among REU, NSW 2004-2010

Ketamine variable	2004 (N=104)	2005 (N=101)	2006 (N=100)	2007 (N=100)	2008 (N=100)	2009 (N=100)	**2010 (N=100)**
Ever used (%)	58	65	57	62	65	53	**64**
Used last 6 mths (%)	39	39	27	36	30	19	**24**
Of those who had used:							
Median days used last 6 mths (range)	4 (1-30)	2 (1-72)	2 (1-48)	2 (1-25)	3 (1-12)	2 (1-8)	**2.5 (1-30)**
Median quantities used (bumps):							
Typical (range)	3 (0.5-15)	3 (0.5-10)	2 (0.5-7)	1 (1-3)	2 (1-4)	4 (1-7)	**3 (1-12)**
Heavy (range)	4 (2-15)	4 (1-20)	2.5 (0.5-7)	2 (1-10)	2 (1-10)	4.5 (1-8)	**3 (1-12)**

Source: EDRS regular ecstasy user interviews 2004-2010

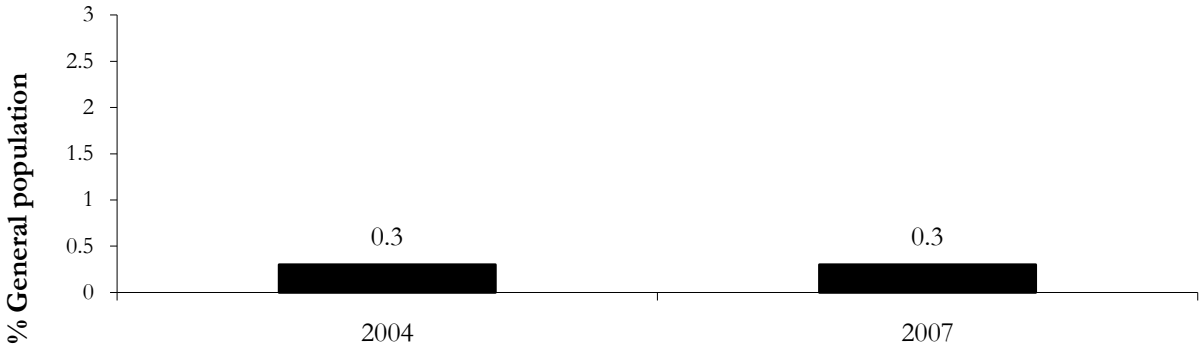
4.5.2 Ketamine use in other populations

General population

Ketamine was first included in the National Drug Strategy Household Survey in 2004 (Australian Institute of Health and Welfare, 2005b). The proportion of the general population in NSW aged 14 years or over reporting recent use of ketamine has remained stable at 0.3% (Figure 10).

[9] Some participants reported quantities used in an average session in one unit and quantities used in their heaviest session in another unit. Thus, direct comparison between the units is not necessarily possible.

Figure 10: Recent* ketamine use in the NSW general population, 2004 and 2007

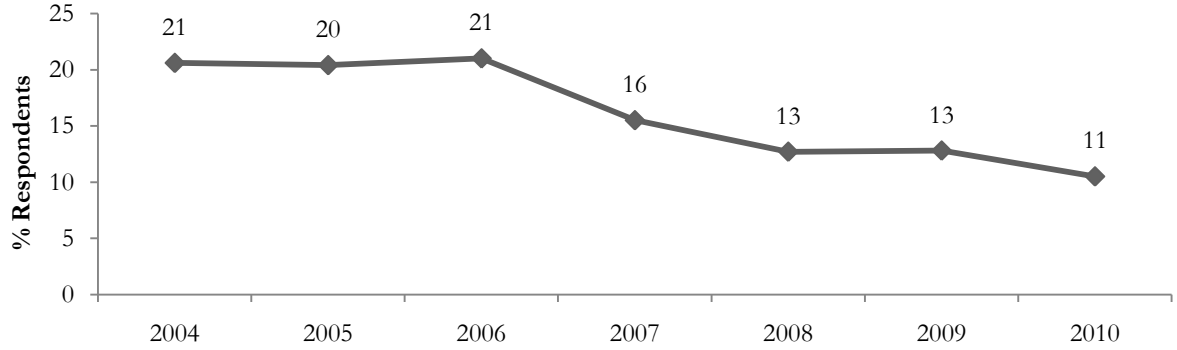


Source: Australian Institute of Health and Welfare 2005; 2008
*** Used in the last 12 months**

Sydney Gay Community Periodic Survey

Figure 11 shows the proportion of men surveyed that had used ketamine in the past six months. There was a significant decrease in the proportion reporting recent ketamine use from 12.8% in 2009 to 10.5% in 2010. The authors reported a significant decline in the use of ketamine among their sample from 2004 (20.6%) to 2010 (10.5%) (Lee, et al., 2010).

Figure 11: Proportion of gay men in Sydney reporting recent ketamine use, 2004-2010



Source: Sydney Gay Community Periodic Survey, 2010

Key expert comments

Most KE who commented on ketamine agreed that while it had previously been more popular, they had not heard much about it over the past 12 months. When they had seen it, KE generally observed that it was used by certain subgroups of REU including more experienced users, REU who enjoy using hallucinogenic drugs and REU who enjoyed mixing ketamine with other drugs (such as alcohol and methamphetamines) to attempt to recreate "that lovey MDMA feeling".

4.6 GHB use

Summary:

- Two-fifths of the sample had tried GHB at least once and one-fifth had used it recently.
- GHB was used on a median of 3 days (i.e. less than monthly) over the preceding six months.
- There was a significant increase in the lifetime and recent use of GHB from 2009 to 2010.
- Recent use of GHB among the NSW general population remained low and stable.
- From 2004 to 2010 there had been a significant increase in the use of GHB among participants of the Sydney Gay Community Periodic Survey.
- Key experts were concerned about the rising popularity of GHB and the risk of overdose associated with the availability of both GHB and GBL on the market.

Gamma-hydroxybutyrate (GHB) has been researched and used for a number of clinical purposes including as an anaesthetic (Kam & Yoong, 1998; Nicholson & Balster, 2001). In 1964, GHB was introduced in Europe as an anaesthetic agent particularly for children (Laborit, 1964; Vickers, 1968), but was not widely used due to the incidence of vomiting and seizures (Hunter, Long, & Ryrie, 1971). Research has also examined the effectiveness of GHB as a treatment for narcolepsy (Chin, Kreutzer, & Dyer, 1992; Mack, 1993; Mamelak, 1989) and for alcohol dependence and opioid withdrawal (Kam & Yoong, 1998; Nicholson & Balster, 2001).

In recent years, there has been documentation of the use of GHB as a recreational drug, in a range of countries around the world. Common street names for GHB in Australia include 'liquid ecstasy', 'fantasy', 'GBH', 'grievous bodily harm' and 'blue nitro'. Following restrictions on the availability of GHB, there have been reports of the production of GHB from its precursor, GBL (gamma-butyrolactone). The use of GBL, and a similar chemical, 1,4-B (1,4-butanediol), has also been documented (Ingels, Rangan, Bellezo, & Clark, 2000). GBL and 1,4-B are metabolised into GHB in the body. They may be used as substitutes for GHB, but are known to be pharmacologically different.

Approximately two-fifths (42%) of the sample had ever used GHB and just under one-fifth (17%) reported having done so recently. GHB was first used at a median of 23 years (range 16-34).

4.6.1 GHB use among REU

The vast majority (81%) of those who had recently used GHB had done so on a less than monthly basis although approximately one-fifth (19%) of this group had used it between monthly and fortnightly over this time.

Twelve participants commented on the quantities of GHB they used. These participants reported using a median of 3.5mL (range1-10) in an average episode of use and 5mL (range 1-50) in their heaviest episode of use over the past six months. These participants also commented on where they had last used GHB. There was no discernible pattern regarding whether respondents preferred to use GHB in public versus private venues since almost equal proportions of this small group reported last having used GHB in a nightclub versus a home environment.

Table 10 presents patterns of GHB use across time. Both the proportion reporting the lifetime use (95% CI: -0.05– -0.30, *p=0.01*) and also the recent use (95% CI: -0.02– -0.20, *p=0.03*) of GHB has increased significantly from 2009 to 2010. As there were such small numbers reporting on the frequencies and quantities of use of GHB in 2009, data from 2010 were compared with 2008 and appeared to have remained relatively stable.

Table 10: Patterns of GHB use among REU, NSW 2004-2010

GHB variable	2004 (N=104)	2005 (N=101)	2006 (N=100)	2007 (N=100)	2008 (N=100)	2009 (N=100)	**2010 (N=100)**
Ever used (%)	28	32	40	37	37	24	**42**
Used last 6 mths (%)	18	13	21	23	24	6	**17**
Of those who had used:							
Median days used last 6 mths (range)	2 (1-26)	2 (1-72)	3 (1-40)	6 (1-180)	2.5 (1-48)	4^ (1-72)	**3 (1-10)**
Median quantities used (mL): Typical (range)	5 (2-30)	4 (1.8-20)	3.5 (.25-20)	2 (1-15)	3 (1-20)	7^ (5.5-10)	**3.5 (1-10)**
Heavy (range)	12 (3-36)	15 (3-43)	6 (.25-40)	6 (2-40)	6 (1-20)	8^ (5.5-15)	**5 (1-50)**

Source: EDRS regular ecstasy user interviews 2004-2010

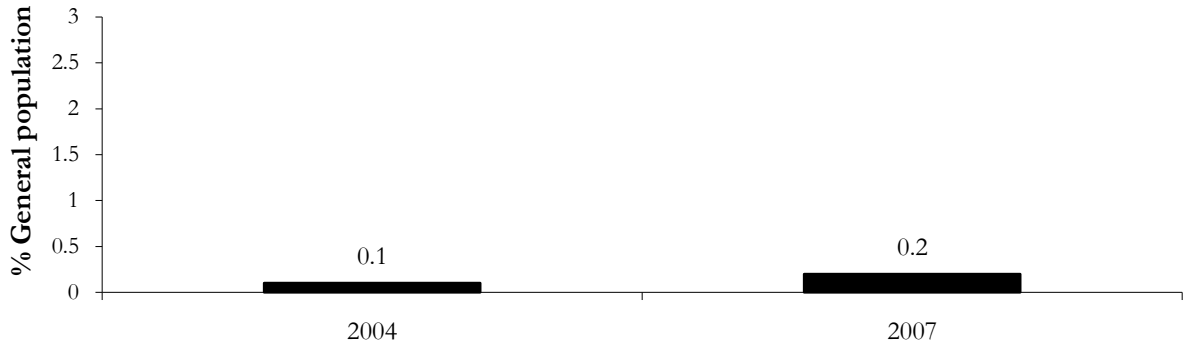
^ Small numbers reporting

4.6.2 GHB use in other populations

General population

The 2004 National Drug Strategy Household Survey was the first to include GHB as a separate drug class (Australian Institute of Health and Welfare, 2005b). From 2004 to 2007 the recent use of GHB among the NSW general population aged 14 years and over remained relatively stable at 0.2% (Figure 12).

Figure 12: Recent* GHB use in the NSW general population, 2004 and 2007

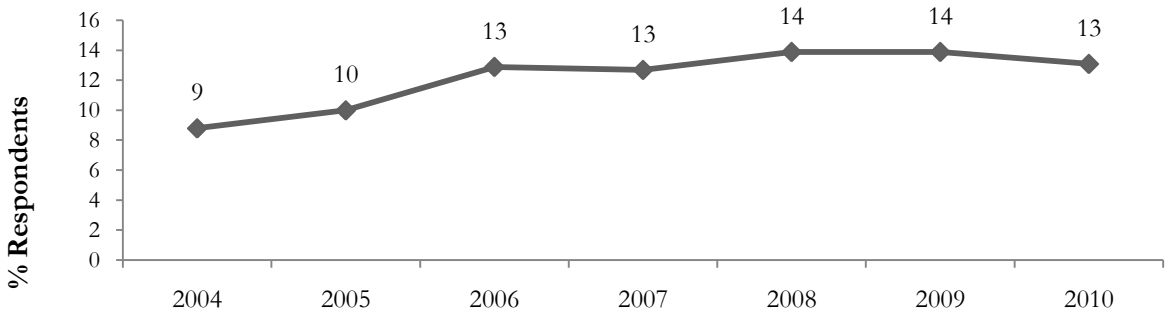


Source: Australian Institute of Health and Welfare (2005b, 2008b)
*** Used in the last 12 months**

Sydney Gay Community Periodic Survey

Figure 13 shows the proportion of gay men surveyed that had used GHB in the past six months. This proportion had increased over time from 8.8% in 2004 to 13.1% in 2010 (Lee, et al., 2010).

Figure 13: Proportion of gay men in Sydney reporting recent GHB use, 2004-2010



Source: Sydney Gay Community Periodic Survey, 2010

Key expert comments

Several KE commented on GHB and it was widely referred to as one of the most problematic drugs among REU over the past 6 to 12 months. Several KE reported that GHB was used among a wide age range and that its use was becoming more widespread. KE observed that REU took GHB in liquid form either mixed in a drink (usually non-alcoholic, such as water) or as is. KE commonly noted that many REU were unable to say exactly how many mL they had taken in their doses. For health KE, this was a major concern since many of the cases of overdose they had seen were associated with 'mismanaged use' of the drug (i.e. taking too many doses to close together, giving a dose to a friend and not checking how recently they had consumed their previous dose etc.). Some KE stated that problems associated with mixing GHB with alcohol continued to occur.

A significant issue raised by several KE is the fact that much of the 'GHB' which is being used in the Sydney party scene at the moment is more likely to be GBL (gamma butyrolactone) a precursor for GHB which, once ingested, converts to GHB in the stomach and blood. (This observation was supported by law KE involved in processing GHB/GBL seizures.) KE reported that there was a delayed onset associated with using GBL and that REU who were more familiar with using GHB were often not aware of this. This creates a situation where users may accidentally take more doses than they normally would when the desired effects do not 'come on' as usual, making them more susceptible to overdose.

KE were also able to offer suggestions as to why GHB/GBL is popular among some REU including:

- it has a higher and more stable purity compared with ecstasy and provides many of the same effects;
- it is less expensive than alcohol and many other drugs; and
- it is not able to be detected by 'sniffer' dogs (and is thus more easily taken in to festivals and events).

A few KE mentioned increasing use of GHB/GBL to heighten sexual experiences or at sex on premise venues. Workers at these venues reportedly express concern about the possibility that patrons who have taken GHB/GBL and are locked in a private room may experience an overdose and not receive the appropriate medical attention. KE also suggested that some REU use GHB for weight loss and/or muscle gain purposes.

4.7 LSD use

Summary:

- Three-quarters of the sample had tried LSD at least once and two-fifths had used it recently.
- LSD was used on a median of 3 days (i.e. less than monthly) over the preceding six months.
- The use of LSD among the sample appeared to be increasing over time.
- The use of hallucinogens among the NSW general population had been declining over time.
- The use of LSD among participants of the Sydney Gay Community Periodic Survey had remained relatively low and stable over time.
- Key experts agreed that the use of LSD was increasing among REU, especially at festivals and events.

Lysergic acid diethylamide is commonly known as LSD, 'trips' or 'acid'. It is a powerful hallucinogen which can produce significant changes in perception, mood and thought. Only a small amount is needed to cause visual hallucinations and distortions. These experiences are known as 'trips'. Unpleasant reactions to LSD include fear, anxiety and depression. LSD is manufactured in illicit laboratories and the majority of LSD is believed to be imported from overseas.

LSD is usually adhered to perforated sheets. Small paper squares ('tabs') are detached from these sheets and usually decorated with designs which can often be culturally specific to the user groups. LSD is potent, so trips are often cut into halves or quarters and shared with others.

More than three-quarters (77%) of the sample had ever used LSD and more than two-fifths (44%) had used it recently. Respondents had first used LSD at a median age of 18 years (range 13-39).

4.7.1 LSD use among REU

LSD was used on a median of 3 days (range 1-25) over the preceding six months (Table 11). Of those who had used LSD, three-quarters (75%) had done so on a less than monthly basis. Just over one in ten (11%) had used it 'between monthly and fortnightly' and 'between fortnightly and weekly' respectively.

The majority of respondents quantified their use in terms of tabs. They reported having used a median of 1 tab (range 0.5-3) during a 'typical' episode of use and 1 tab (range 0.5-6) during the heaviest episode of use in the preceding six months (Table 11). Swallowing was the only route of administration reported by recent users of LSD.

Table 11: Patterns of LSD use of REU, NSW 2004-2010

presents data across time on patterns of LSD use among REU. The proportion reporting the lifetime use of LSD was significantly higher in 2010 than 2009 (95% CI: -0.02 - -0.27, p=0.03). While the proportion reporting the recent use of LSD remained relatively stable from 2009 to 2010, there appears to be a generally increasing trend in recent use of LSD over the past three years from less than one-fifth in 2008 to more than two-fifths in 2010. Despite this, the frequency of use and the quantities used appear to have remained stable.

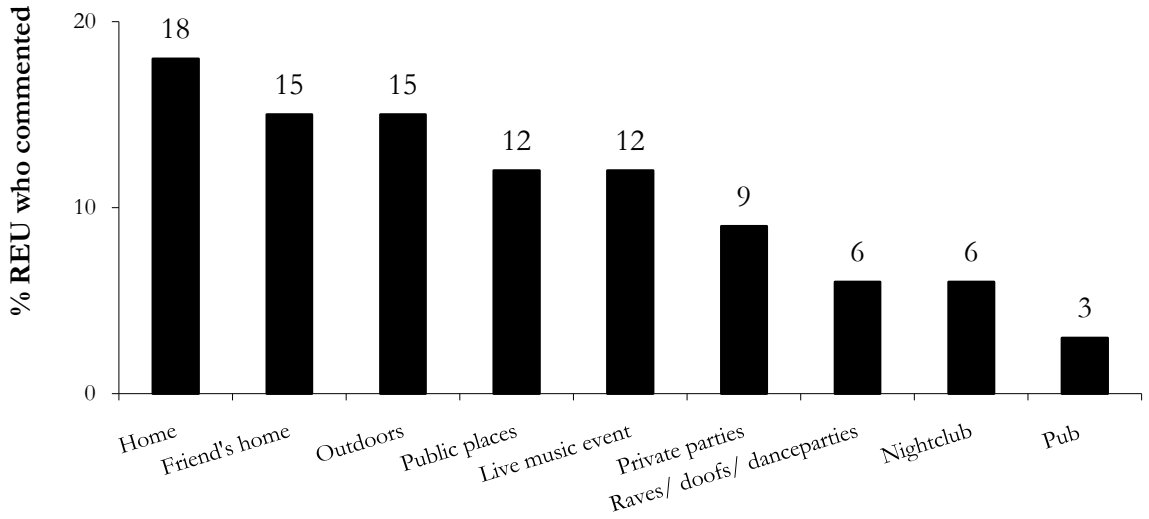
Table 11: Patterns of LSD use of REU, NSW 2004-2010

LSD variable	2004 (N=104)	2005 (N=101)	2006 (N=100)	2007 (N=100)	2008 (N=100)	2009 (N=100)	**2010 (N=100)**
Ever used (%)	61	71	65	68	57	62	**77**
Used last 6 mths (%)	20	33	17	22	18	37	**44**
Of those who had used:							
Median days used last 6 mths (range)	1 (1-20)	2 (1-72)	2 (1-25)	2.5 (1-20)	2 (1-20)	2 (1-25)	**3 (1-25)**
Median quantities used (tabs):							
Typical (range)	1 (0.25-4)	1 (0.50-3)	1 (0.50-2)	1 (0.25-4)	1 (0.25-2.5)	1 (0.5-3)	**1 (0.5-3)**
Heavy (range)	1 (0.5-4)	1 (0.5-15)	2 (0.50-6)	1 (0.25-10)	1.75 (0.5-3)	1 (0.5-3.5)	**1 (0.5-6)**

Source: EDRS regular ecstasy user interviews 2004-2010

Figure 14 presents the location of last LSD use. In contrast to many of the other drugs reported herein, recent users of LSD had frequently used it in public venues such as live music events and outdoors. Nevertheless, a large minority (42%) had last used it in a private setting such as their own home, a friend's home or a private party.

Figure 14: Last location of LSD use, NSW 2010



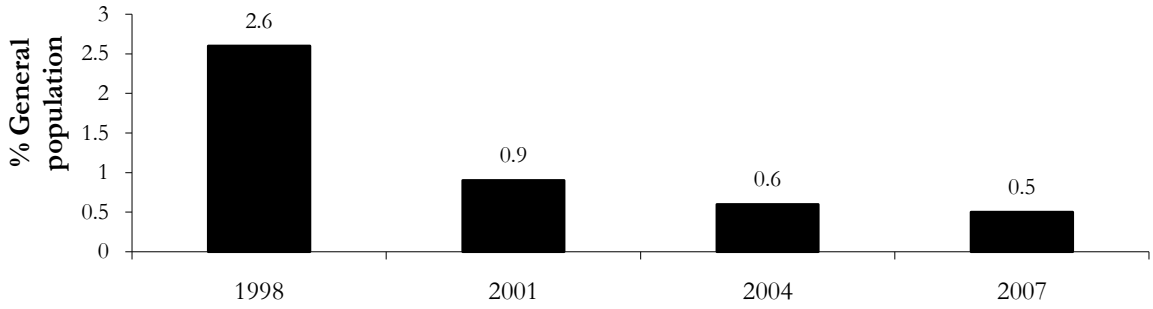
Source: EDRS regular ecstasy user interviews 2010

4.7.2 Hallucinogen use in other populations

General population

Figure 15 presents data across time on the recent use of hallucinogens in the NSW general population among participants aged 14 years or over. This proportion decreased from 2.6% in 1998 to 0.9% in 2001 and has decreased slightly since with 0.5% of the NSW general population reporting recent usage of hallucinogens in 2007.

Figure 15: Recent* hallucinogen use in the NSW general population, 1998-2007

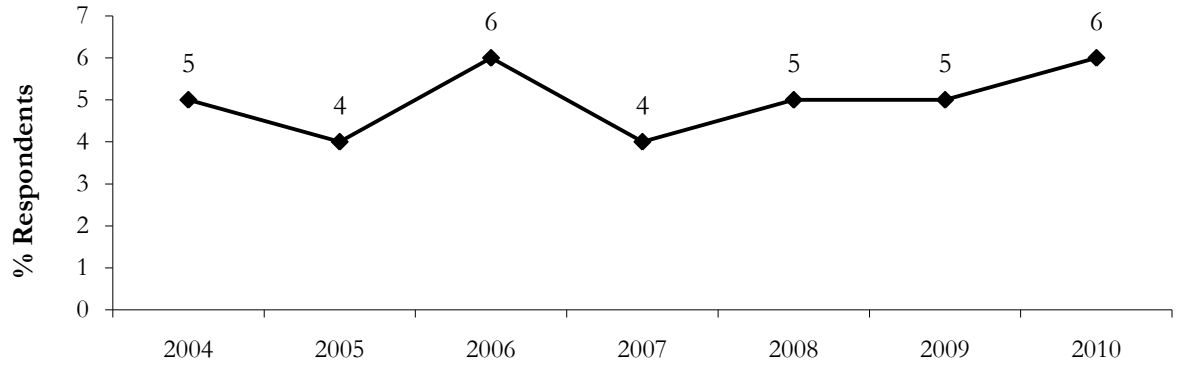


Source: Fitzsimmons & Cooper-Stanbury 2000; Australian Institute of Health and Welfare 2002, 2005, 2008.
*** Used in the last 12 months**

Sydney Gay Community Periodic Survey

Less than one-in-ten (6%) reported recently using LSD/trips among the gay men interviewed for the 2010 periodic survey (Figure 16). This figure has remained relatively stable over time (Lee, et al., 2010).

Figure 16: Proportion of gay men in Sydney reporting the recent use of LSD/trips, 2004-2010



Source: Sydney Gay Community Periodic Survey, 2010

Key expert comments

Most KE were in agreement that the use of LSD appears to be increasing. Several KE stated with surprise that LSD is "coming back into vogue" although they often stated that the overall use of LSD continues to be low in comparison to other available ERD. Law KE noted that the average age of offenders prosecuted for LSD-related crimes has been trending down over the past 7 years and that there appears to have been an increase in the number of LSD seizures made in the city area. Health KE reported observing that the use of LSD at festivals and events has been increasing. They hypothesised that REU may prefer to bring LSD into the events because it is unable to be detected by 'sniffer dogs' and carries less risk of arrest relative to other ERD.

Health KE added that with the increasing use of LSD at events, they have been required to manage an increasing number of LSD-related presentations. One KE stated that while the vast majority of LSD users "'re ok" a small minority can have "big problems". While these patients reportedly rarely require emergency or first aid care, they can present as very distressed and can require intensive monitoring. In some cases, patients can display psychotic behaviour and, very occasionally, require mild sedation. Furthermore, since the effects of LSD can be so long-lasting, health providers can find themselves in an ethical dilemma if the patient has not regained sufficiently by the end of the event, since they need to ensure they leave their patient in a safe environment.

4.8 Cannabis use

Summary:

- Almost every participant had tried cannabis at least once and three-quarters had used it recently.
- Cannabis was used on a median of 49 days (i.e. twice per week) over the preceding six months.
- The use of cannabis had remained relatively stable over time.
- The use of cannabis among the NSW general population had been declining over time.
- The use of cannabis among participants of the Sydney Gay Community Periodic Survey had declined over time.
- Key experts agreed that cannabis continued to be widely used among REU.

Cannabis is derived from the cannabis plant (*cannabis sativa*). While cannabis can be grown in almost any climate, it is being increasingly cultivated by means of indoor hydroponic technology. The main active ingredient in cannabis is delta-9-tetrahydro-cannabinol (THC). Cannabis is used recreationally in three main forms: marijuana ('bush' or 'hydro' – see below for a description of these forms of marijuana); hashish ('hash'); and hash oil (National Drug and Alcohol Research Center, 2008).

From 2006, the EDRS included a more detailed section about cannabis and made a distinction between indoor-cultivated 'hydroponic' cannabis (hydro) and outdoor-cultivated 'bush' cannabis for price, potency and availability. In 2010, only participants who were able to distinguish between hydro and bush provided information about the price, purity and availability of cannabis.

Almost every participant in the 2010 EDRS (98%) had ever used cannabis and more than three-quarters (78%) reported having done so over the six months preceding the interview (Table 12). Cannabis was first used at a median age of 15 years (range 8-32) and men had first used cannabis at a significantly younger age than women (median ages 14.5 vs. 15 years; $U=688, p<0.05$).

4.8.1 Cannabis use among REU

Recent cannabis users reported having used it on a median of 49 days (range 1-180); however, there appeared to be two distinct groups of users on the basis of frequency of use. One group (36% of recent cannabis users) used it on a less than monthly basis and another group (50%) used it either every day or several days per week. All recent users of cannabis had smoked it over the past six months and 27% reported having recently ingested it.

Recent users of cannabis were asked how much they had smoked on their last occasion of use. Thirty seven participants quantified their last use in terms of cones and reported having smoked a median of 5 cones (range 1-35) on their last occasion of use. Thirty eight REU quantified their use in terms of joints and reported having smoked a median of 1 joint (range 0.1-4) on their last occasion of use.

Trends in the use of cannabis are presented in Table 12. There was no significant change in the proportions reporting the lifetime or recent use of cannabis from 2009 to 2010. Furthermore,

while the median number of days of use appears higher, there was no significant difference in the frequency of use of cannabis from 2009 to 2010.

Table 12: Patterns of cannabis use of REU, NSW 2004-2010

Cannabis variable	2004 (N=104)	2005 (N=101)	2006 (N=100)	2007 (N=100)	2008 (N=100)	2009 (N=100)	**2010 (N=100)**
Ever used (%)	99	92	95	97	93	98	**98**
Used last 6 mths (%)	85	82	73	74	71	83	**78**
Of those who had used:							
Median days used last 6 mths (range)	48 (1-180)	48 (1-180)	24 (1-180)	48 (1-180)	24 (1-180)	25.5 (1-180)	**49 (1-180)**

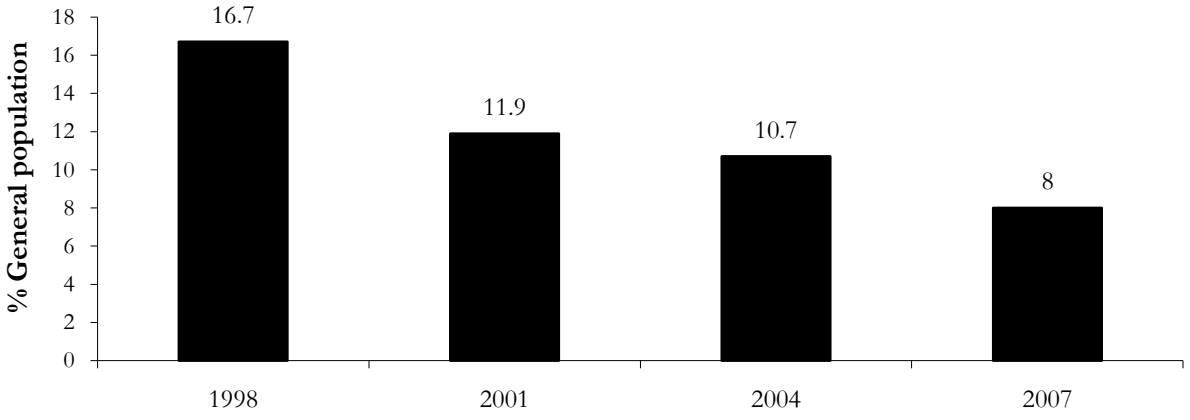
Source: EDRS regular ecstasy user interviews 2004-2010

4.8.2 Cannabis use in other populations

General population

The proportion of the NSW general population aged 14 years or over reporting the recent use of cannabis has continued to decline from 10.7% in 2004 to 8% in 2007. The current proportion of recent users in the general population of NSW is less than half that reported in 1998 (16.7%) (Figure 17).

Figure 17: Recent* cannabis use in the NSW general population, 1998-2007

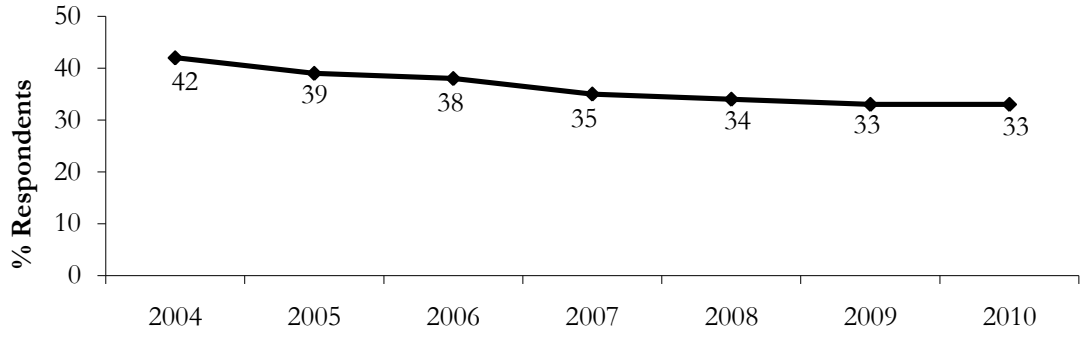


Source: Fitzsimmons & Cooper-Stanbury 2000; Australian Institute of Health and Welfare 2002, 2005, 2008.
*** Used in the last 12 months**

Sydney Gay Community Periodic Survey

Figure 18 shows the proportion of gay men surveyed that had used cannabis in the past six months. One-third of the men who participated had recently used cannabis. The authors reported a significant decrease in the use of cannabis over time from 42% in 2004 to 33% in 2010 (Lee, et al., 2010).

Figure 18: Proportion of gay men in Sydney reporting recent cannabis use, 2004-2010



Source: Sydney Gay Community Periodic Survey, 2010

Illicit Drug Reporting System (IDRS)

A separate monitoring system investigating trends in the use of cannabis in IDU has been conducted in NSW since 1996, VIC and SA since 1997 and nationally since 2000. This is called the Illicit Drug Reporting System, or IDRS, and reports and bulletins are available from the NDARC website (http://notes.med.unsw.edu.au/NDARCWeb.nsf/page/IDRSa).

Key expert comments

KE generally agreed that cannabis continues to be widely used, especially among younger REU. A few KE noted that cannabis is rarely used at festivals and events. One KE observed that cannabis "is being used more liberally, like alcohol" and is "not really seen as a problem drug". However, KE who work in counselling and health provision observed that there can be widespread impacts of regular cannabis on REU, particularly impacting their levels of motivation and their mental health.

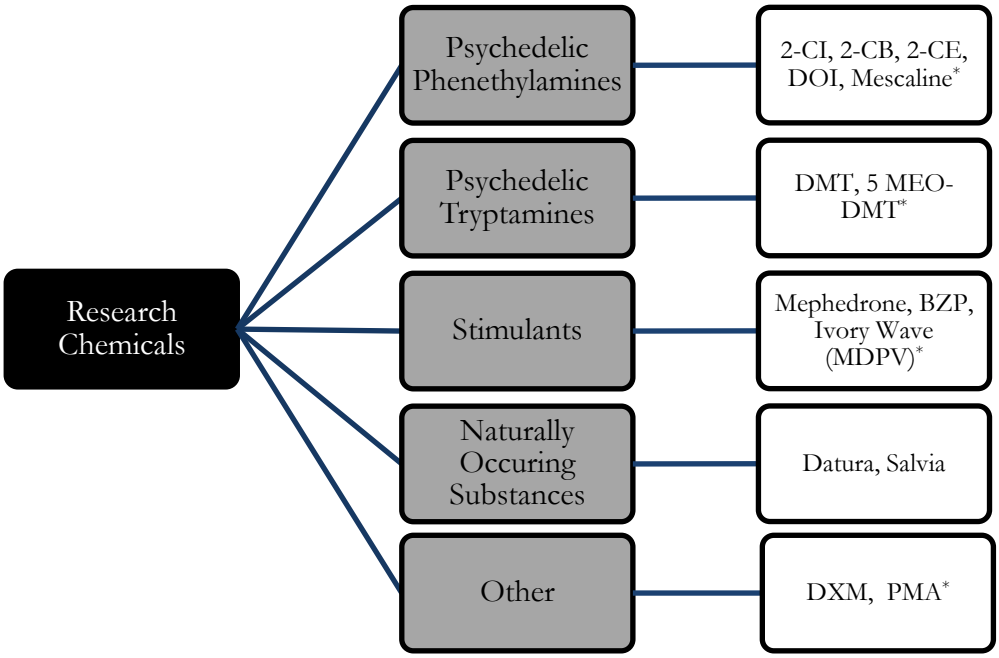
4.9 Research chemical use

Summary:

- The two most common research chemicals recently used among Sydney REU were DMT (n=7) and mephedrone (n=4).
- Key experts reported that they had not heard much about mephedrone lately and that there had been a substantial drop in the availability of piperazines (mainly BZP).

In 2010 the EDRS attempted to systematically investigate a group of drugs known as 'research chemicals' (a.k.a. analogues, legal highs, herbal highs, party pills). These drugs can be classified as outlined in Figure 19.

Figure 19: Research chemicals investigated by the EDRS, 2010



***For abbreviations see Table 13**

Psychedelic refers to "a mental state of enlarged consciousness, involving a sense of aesthetic joy and increased perception transcending verbal concepts." or "denoting or relating to any of a group of drugs inducing such a state, especially LSD" (Macquarie Dictionary). Phenethylamine is a neurotransmitter that is an amine resembling amphetamine in structure and pharmacological properties. Derivatives of phenethylamine are referred to as phenethylamines (Merriam-Websters Medical Dictionary). Tryptamine is a crystalline amine derived from tryptophan. Substituted derivatives of this amine, some of which are significantly hallucinogenic or neurotoxic, are known as 'tryptamines' (Merriam-Websters Medical Dictionary).

Table 13 provides a very brief introduction to these drugs to provide a rough guide for interpreting trends data. Interested readers are directed toward online sources such as Erowid (http://www.erowid.org/splash.php) and Drugscope (http://www.drugscope.org.uk/) for more comprehensive information on these drugs.

Table 13: Specific drugs investigated in the EDRS, 2010

Street Name	Chemical Name	Information on Drug	Information on use and effects
2-CI	2,5-dimethoxy-4-iodophenethyl-amine	A psychedelic drug with stimulant effects	Recent reports suggest that 2-CI is slightly more potent than the closely related 2-CB
2-CB	2,5-dimethoxy-4-bromophenethy-amine	A psychedelic drug with stimulant effects	2C-B is sold as a white powder sometimes pressed in tablets or gel caps
2-CE	2,5-dimethoxy-4-ethylphenethyl-amine	A psychedelic drug with stimulant effects	
DOI (Death on impact)	2,5-dimethoxy-4-iodoamphetamine	A psychedelic phenethylamine	Requires only very small doses to produce full effects. Has been found on blotting paper and may be sold as LSD[10]
Mescaline	3,4,5-trimethoxyphene-thylamine	A hallucinogenic alkaloid	First isolated in 1896 from the peyote cactus of northern Mexico
DMT	Dimethyltript-amine	A hallucinogenic drug in the tryptamine family	Similar to LSD though its effects are said to be more powerful. Pure DMT is usually found in crystal form but has been reportedly sold in powder form[11]
5MEO-DMT	5-methoxy-dimethyltrypt-amine)	A naturally occurring psychedelic tryptamine present in numerous plants and in the venom of the *Bufo alvarius* toad	It is found in some traditional South American shamanic snuffs and sometimes in Ayahuasca brews. It is comparable in effects to DMT; however, it is substantially more potent. 5-MEO-DMT is mostly seen in crystalline form[12]
Mephedrone	4-methyl-methcathin-one	A stimulant which is closely chemically related to amphetamines	Reportedly produces a similar experience to drugs like amphet-amines, ecstasy or cocaine. Mephedrone is a white, off-white or yellowish powder although it may also appear in pill or capsule form. Mephedrone is probably the most well known of a group of drugs derived from cathinone (a chemical found in the plant called khat)[13]

[10] Erowid: http://www.erowid.org/chemicals/doi/doi.shtml.

[11] Drugscope: http://www.drugscope.org.uk/resources/drugsearch/drugsearchpages/dmt).

[12] Erowid: http://www.erowid.org/chemicals/5meo_dmt/5meo_dmt.shtml.

[13] Drugscope: http://www.drugscope.org.uk/resources/drugsearch/drugsearchpages/mephedrone.

Table 13: Specific drugs investigated in the EDRS, 2010

Street Name	Chemical Name	Information on Drug	Information on use and effects
BZP	1-benzylpiperazine	A piperazine; a CNS stimulant.	Gained popularity in some countries in the early 2000s as a legal alternative to amphetamines and ecstasy. One of the more common piperazines, providing stimulant effects which people describe as a noticeably different than those of amphetamines. Not particularly popular as many people find that it has more unpleasant side effects than amphetamines[14]
Ivory wave	Methylenedioxypyrovalerone (3,4-methylenedioxy) or MDPV	A cathinone derivative.	More potent than other cathinones. Lidocaine (a common local anaesthetic) is frequently used as a cutting agent, to give users the numbing sensation in the mouth or nose which is associated with drugs of high purity (e.g. high-purity cocaine)[15].
DXM	Dextrometh-orphan	A semisynthetic opiate derivative which is legally available over-the-counter in the US	DXM is most commonly found in cough suppressants, especially those with 'DM' or 'Tuss' in their names. DXM is a dissociative drug[16]
PMA	Paramethoxyamphetami; 4-methoxy-amphetamine	A synthetic hallucinogen that has stimulant effects	Ingesting a dose of less than 50 milligrams (usually one pill or capsule) without other drugs or alcohol, induces symptoms reminiscent of MDMA although PMA is more toxic than MDMA. Doses over 50 milligrams are considered potentially lethal (due to the risk of overheating)
Datura	(commonly *Datura inoxia* and *Datura strammonium*) Contains: Atropine and Scopolamine	Atropine is a potent anticholinergic agent. Scopolamine is a CNS depressant and has antimuscarinic properties[17]	The plant's effects make the user feel drowsy, drunk-like and detached from things around them. They can also bring on hallucinations**.** Doses are difficult to judge and can cause unconsciousness and death[18]

[14] Erowid: http://www.erowid.org/chemicals/bzp/bzp_basics.shtml.
[15] Drugscope: http://www.drugscope.org.uk/ourwork/pressoffice/pressreleases/ivory_wave_MDP.
[16] Erowid: http://www.erowid.org/chemicals/dxm/dxm_basics.shtml

[17] (Baselt, 2008)
[18] Drugscope: http://www.drugscope.org.uk/resources/drugsearch/drugsearchpages/datura

The two most common research chemicals ever used among Sydney REU were 2-CB (16%) and DMT (18%). However, the proportions who had recently used research chemicals was low. The one most commonly used over the preceding six months was DMT (n=7) followed by mephedrone (n=4). Smaller proportions reported having recently used 2-CB (n=2), 2-CE (n=2), 2-CI (n=1) and mescaline (n=1).

Table 14: Research chemical use among REU, NSW 2010

	2010 (N=100)
2-CI	
ever used (%)	**4**
used last 6 months (%)	**1**
2-CB	
ever used (%)	**16**
used last 6 months (%)	**2**
2-CE	
ever used (%)	**2**
used last 6 months (%)	**2**
DOI (Death on impact)	
ever used (%)	**-**
used last 6 months (%)	**-**
Mescaline	
ever used (%)	**8**
used last 6 months (%)	**1**
DMT	
ever used (%)	**18**
used last 6 months (%)	**7**
5MEO-DMT	
ever used (%)	**1**
used last 6 months (%)	**-**
Mephedrone	
ever used (%)	**4**
used last 6 months (%)	**4**
BZP	
ever used (%)	**2**
used last 6 months (%)	**-**
Ivory Wave	
ever used (%)	**-**
used last 6 months (%)	**-**
DXM	
ever used (%)	**2**
used last 6 months (%)	**-**
PMA	
ever used (%)	**2**
used last 6 months (%)	**-**
Datura	
ever used (%)	**1**
used last 6 months (%)	**-**

Source: EDRS regular ecstasy user interviews 2004-2010

Key expert comments

Almost all KE who commented on mephedrone stated that they had heard about it for a short time but had not actually seen someone using it or spoken to someone who had used it. One KE stated that it had "dropped off the radar instantly". This KE hypothesised that REU were uncomfortable purchasing drugs online and preferred using drugs which could be purchased from a friend or dealer, effectively distancing themselves from being "a trafficker". Another KE reported that mephedrone was available in liquid and powder form and was mostly used by gay men.

A KE who worked in emergency care had observed a few patients who had used mephedrone and noted that they were agitated and restless and sometimes displayed bizarre behaviours. They noted the presentation was "very different to anything else" they had seen.

Aside from mephedrone, KE did not commonly discuss research chemicals. One KE had observed a slight increase in the use of legal highs or natural high herbs toward the end of the festival year in April/M77ay 2010 but had not seen them return after that. A law KE stated that there had been a substantial drop in the market availability of piperazines (mostly BZP) which may have been associated with the arrest of a few key figures.

4.10 Other drug use

Summary:

- Every participant reported the lifetime use of alcohol and 97% had used it recently.
- Key experts reported that alcohol continued to be one of the most problematic drugs among REU.
- The majority of REU had used tobacco at least once and three-quarters had done so recently.
- Two-fifths of the group had recently used benzodiazepines. Illicit use was more common than licit use.
- One-in-ten REU had recently used antidepressants. Licit use was more common than illicit use.
- Almost half the sample had recently used amyl nitrite while 15% had recently used nitrous oxide.
- One-quarter of the sample had ever used heroin and 12% had done so recently. The use of other opiates was relatively low among REU.
- One-in-ten had recently used mushrooms, significantly lower than in 2009 (21%).
- Sixteen percent of the sample had recently used pharmaceutical stimulants. Illicit use was more common than licit use.
- While the use of over the counter codeine-containing products was common among REU, it was usually for pain-relief rather than recreational purposes.
- No participant reported having recently used PIED.

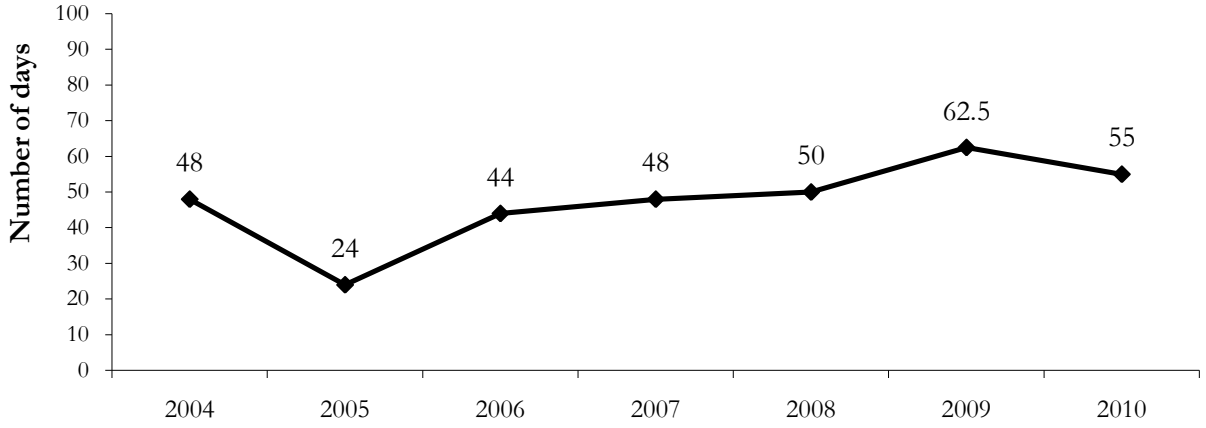
Substantial proportions of REU have reported the use of other licit and illicit drugs across sampling years.

4.10.1 Alcohol

The entire 2010 sample of REU reported having used alcohol at least once and the vast majority (97%) reported having done so during the past six months. Participants had first used alcohol at a median age of 14 years (range 5-18). Participants reported having consumed alcohol on a median of 55 days (range 2-180) over the preceding six months and the majority of REU (79%) had used alcohol on a greater than weekly basis.

Figure 20 presents the median days of use of alcohol within the six months preceding the interview across time. While this figure fell from 62.5 days in 2009 to 55 days in 2010, this change was not significant.

Figure 20: Days of alcohol use in the last six months, NSW 2004-2010



Source: EDRS regular ecstasy user interviews 2004-2010

See section 7.5 'Problematic alcohol use among REU' for a discussion of harmful alcohol use among REU in NSW.

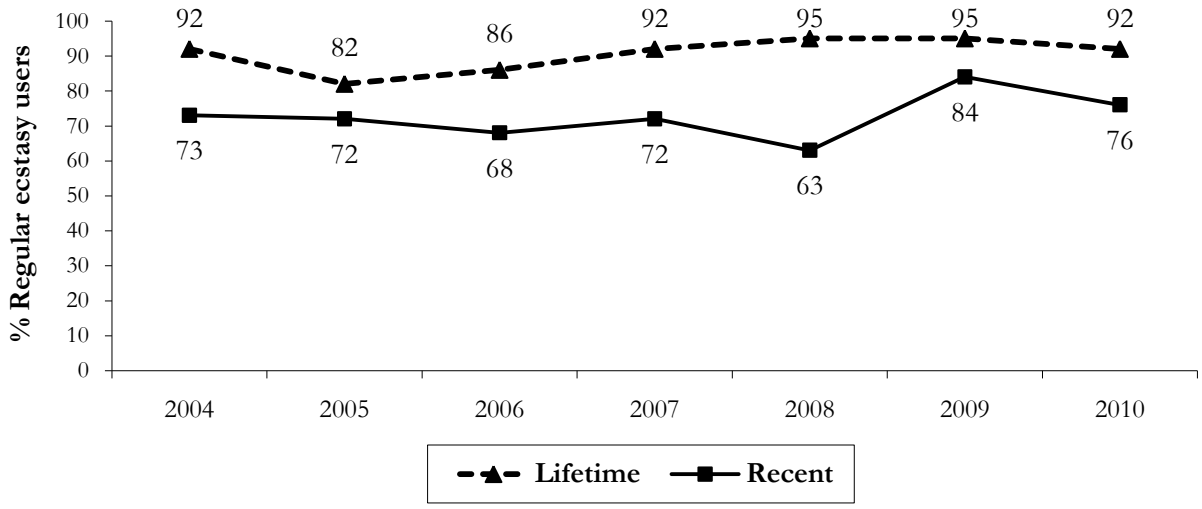
Key expert comments

KE generally agreed that alcohol continues to be one of the most widespread and problematic drugs in use. They reported that alcohol is used "across all groups". A few KE noted an ongoing trend of using alcohol with other drugs such as crystal and ecstasy. Hospitality KE reported that intoxicated patrons were among the most difficult group to manage and that this was compounded when patrons were mixing other drugs with alcohol. Health KE observed that patrons who were under the influence of drugs tended to drink more than usual and then become intoxicated very quickly toward the end of the night. One KE reported hearing about the practice of mixing alcohol with antipsychotics to produce a "downer feeling".

4.10.2 Tobacco

The vast majority (92%) of REU interviewed in 2010 had used tobacco at some point and three-quarters (76%) reported having done so over the preceding six months. Tobacco was first used at a median age of 14 years (range 6-25). Tobacco had been used on a median of 171 days (range 1-180) over the preceding six months and almost half (49%) of those who had recently used tobacco were daily smokers. The proportions of the samples reporting lifetime and recent use of tobacco have remained stable from 2009 to 2010 (Figure 21).

Figure 21: Proportion of regular ecstasy users reporting lifetime and recent tobacco use, NSW 2004-2010



Source: EDRS regular ecstasy user interviews 2004-2010

Key expert comments

One KE mentioned that it was common to hear about cigarettes when speaking with young people in high schools along with alcohol and cannabis. Another KE felt that tobacco continues to be a problematic drug because "people don't see it as a problem".

4.10.3 Benzodiazepines

Almost two-thirds (64%) of the sample reported having ever used any benzodiazepines and two-fifths (38%) reported having done so recently. Among those who had recently used them, benzodiazepines had been used on a median of 4.5 days (range 1-180).

Licit benzodiazepines

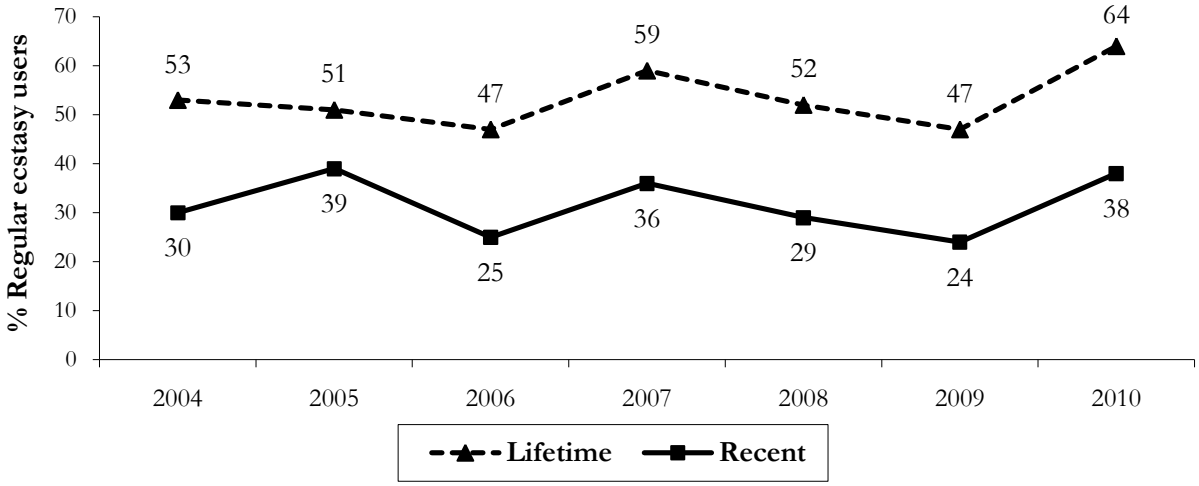
More than one-in-ten (15%) reported having ever used licitly obtained benzodiazepines and 5% had done so recently. Licit benzodiazepines were first used at a median age of 22 years (range 15-40). They had been used on a median of 10 days (range 1-180) over the six months prior to the interview. All six participants reported swallowing as the main route of administration of licitly obtained benzodiazepines over this period.

Illicit benzodiazepines

More than half (59%) of REU had ever used illicitly obtained benzodiazepines, and one-third (34%) had done so over the preceding six months. They were first used at a median age of 20 years (range 12-34) and were most commonly swallowed. Illicit benzodiazepines had been used on a median of 5 days (range 1-48) by recent users.

Trends across time in the prevalence of both lifetime and recent use of any benzodiazepines among REU are presented in Figure 22. Both the lifetime (95% CI: -0.03– -0.30, *p=0.02*) and recent (95% CI:-0.01– -0.26, *p=0.047*) use of benzodiazepines increased significantly from 2009 to 2010.

Figure 22: Proportion of regular ecstasy users reporting lifetime and recent benzodiazepine use, NSW 2004-2010



Source: EDRS regular ecstasy user interviews 2004-2010

Key expert comments

One KE reported an increase in the number of REU they had seen who regularly used benzodiazepines. They had heard of a group who would mix benzodiazepines with alcohol to simulate the effect of opiates. Two KE mentioned they heard about benzodiazepines more commonly among people who inject drugs. One KE reported that it was more common to use benzodiazepines to come down from ecstasy and other stimulant drugs than it was to smoke cannabis among the GLBTQ community.

4.10.4 Antidepressants

One-quarter (26%) of participants reported having ever used antidepressants and one in ten (12%) had done so over the preceding six months. Among those who had recently used them, antidepressants had been used on a median of 28 days (range 1-180).

Licit antidepressants

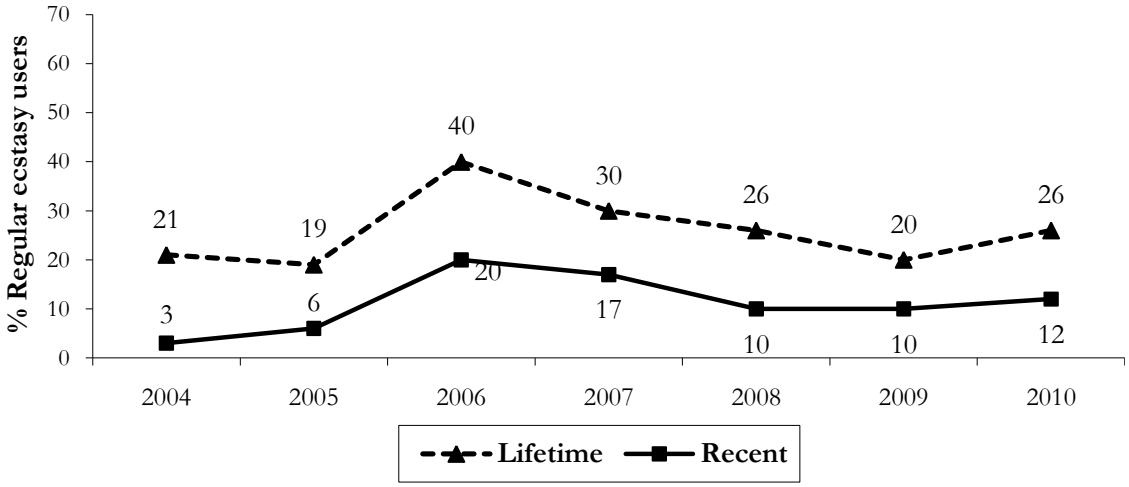
One-fifth of the sample (20%) had ever used licitly obtained antidepressants and almost one-tenth (9%) had done so over the preceding six months. Licit antidepressants were first used at a median age of 24 years (range 8-35). They had been used on a median of 100 days (range 1-180) and swallowing was the main route of administration reported.

Illicit antidepressants

Nine participants reported having ever used illicit antidepressants and four participants reported having used them over the past six months. Illicit antidepressants were first used at a median age of 18 years (range 14-25). The median age at which they were first used was 19 years (range 15-25). Given the small sample who had recently used illicitly obtained antidepressants (n=4), data on routes of administration and the median days of use are not presented here.

Figure 23 presents data from 2004 onwards on the reported lifetime and recent use of any antidepressants. Both of these proportions have remained stable from 2009 to 2010.

Figure 23: Proportion of regular ecstasy users reporting lifetime and recent anti-depressant use, NSW 2004-2010



Source: EDRS regular ecstasy user interviews 2004-2010

4.10.5 Inhalants

Amyl nitrite

More than three-quarters (78%) of REU interviewed had ever used amyl nitrite and almost half the sample (46%) had used it over the preceding six months. Amyl nitrite was first used at a median age of 18 years (range 10-29). Those who had recently used it had done so on a median of 5 days (range 1-90) over the preceding six months. The majority of recent users of amyl nitrite (63%) used it on a less than monthly basis.

Key expert comments

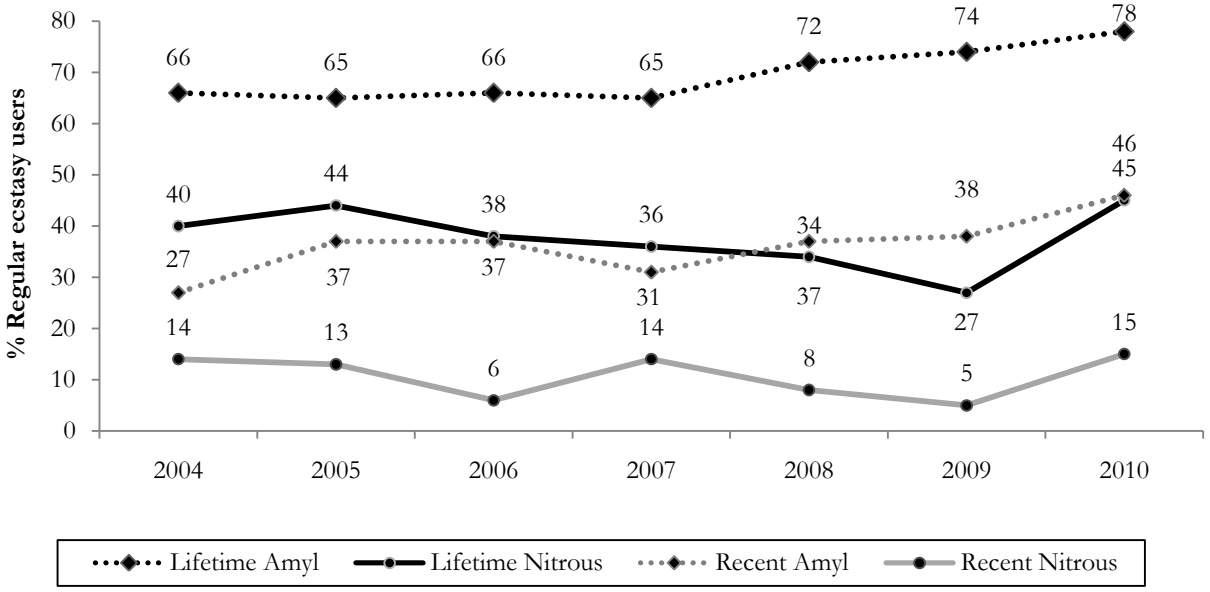
Among the few KE who mentioned amyl nitrite, the majority referred to its use among the GLBTQ community. One KE had observed a large increase in the prevalence of use of amyl nitrite among young women. Another KE was concerned about the practice of using amyl nitrite in combination with Viagra, particularly whether there could be any drug interactions.

Nitrous oxide

Approximately half (45%) of the sample reported having ever used nitrous oxide and 15% had done so recently. Nitrous oxide was first used at a median age of 19 years (range 10-38). Among those who had used it over the last six months, nitrous oxide had been used on a median of 1 day (range 1-20) during this time.

Figure 24 presents trends across time of the proportions of the EDRS samples that had ever used, and had recently used, both amyl nitrite and nitrous oxide. The proportions reporting recent and lifetime use of amyl nitrite remained stable from 2009 to 2010. There were significant increases in both the lifetime (95% CI:-0.05– -0.30, *p=0.01*) and recent (95% CI:-0.02– -0.19, *p=0.03*) use of nitrous oxide.

Figure 24: Proportion of regular ecstasy users reporting lifetime and recent amyl nitrite and nitrous oxide use, NSW 2004-2010

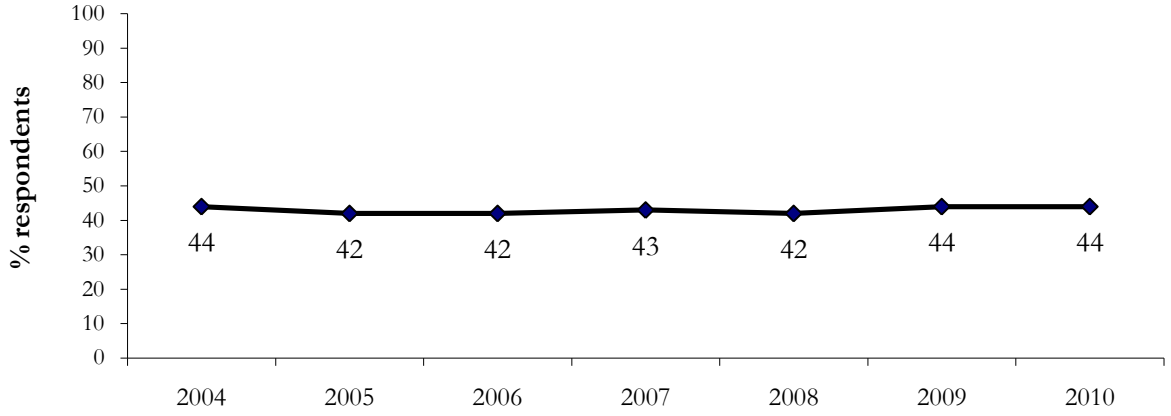


Source: EDRS regular ecstasy user interviews 2004-2010

Inhalant use in other populations

The recent use of inhalants in the NSW general population aged 14 years and above has remained low and stable in the past three surveys (0.5% in 2001, 0.4% in 2004 and 0.4% in 2007) (Australian Institute of Health and Welfare, 2008a). Data collected across time from the Sydney Gay Community Periodic Survey has shown that large proportions of men reported the use of amyl nitrite in the past six months (Figure 25). Just over two-fifths (44%) of participants in 2010 reported recently using amyl nitrite. This figure has remained relatively stable over time (Lee, et al., 2010).

Figure 25: Proportion of gay men in Sydney reporting recent amyl nitrite use, 2004-2010

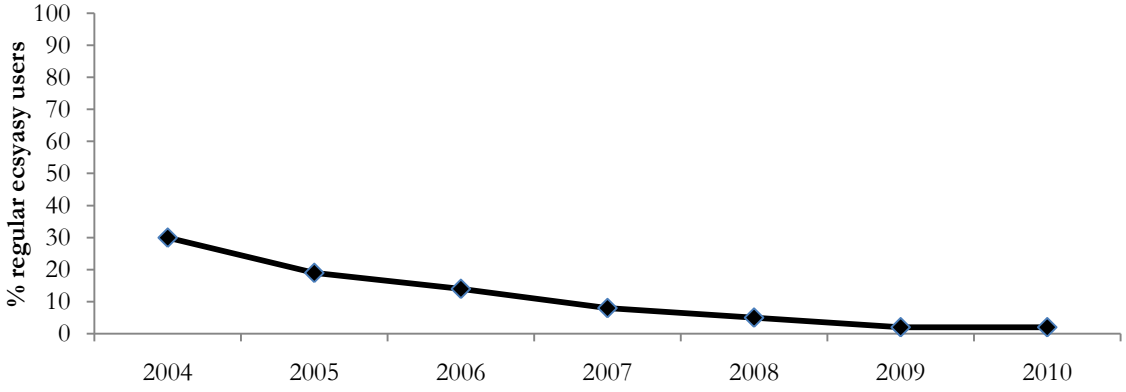


Source: Sydney Gay Community Periodic Survey, 2010

4.10.6 MDA

One-fifth of participants in the 2010 EDRS reported having ever used MDA, however, only 2 participants reported they had used it over the preceding six months. MDA was first used at a median age of 19 years (range 16-29). The EDRS has shown a decline in the use of MDA among REU in NSW across time Figure 26.

Figure 26: Proportion of regular ecstasy users reporting recent use of MDA, 2004-2010



Source: EDRS regular ecstasy user interviews 2004-2010

4.10.7 Heroin and other opiates

Heroin

Approximately one-quarter (23%) of REU reported that they had ever used heroin and approximately one-in-ten (12%) reported they had used it in the preceding six months. Heroin was first used at a median age of 20 years (range 14-29). While the majority of recent users of heroin had injected it (67%), large proportions also reported having snorted (25%) and smoked (25%) it. Those who had recently used heroin had done so fairly infrequently with approximately one-third (67%) having used it on a less than fortnightly basis over the preceding six months.

Methadone and buprenorphine

Eight participants reported the lifetime use of methadone and four participants had used it over the preceding six months. Methadone was first used at a median age of 23 years (range 18-27). Four participants reported having ever used buprenorphine and two participants had done so recently.

Other opiates

While one-quarter (24%) of respondents had ever used a licitly obtained opiate (other than methadone or buprenorphine), only two participants had used a licitly obtained opiate recently. Licitly obtained opiates were first used at a median age of 16 years (range 6-40). One- fifth (22%) of the sample reported having ever used illicitly obtained opiates (other than heroin, methadone or buprenorphine); and eight participants had used them over the six months prior to the interview.

Opiate use in other populations

A separate monitoring system investigating trends in the use of opioids in injecting drug users has been conducted in NSW since 1996, VIC and SA since 1997 and nationally since 2000. This is called the Illicit Drug Reporting System, or IDRS, and reports and bulletins are available from the NDARC website (http://notes.med.unsw.edu.au/NDARCWeb.nsf/page/IDRSa).

Key expert comments

The few KE who were able to comment on heroin were in agreement that it is very rarely discussed or used among REU. One KE suggested that it may provide effects which are not commensurate with or desirable for partying (i.e. "people don't want to be on the nod"). A few KE made reference to the general negative stigma associated with heroin, especially among younger REU. KE mentioned that when heroin was used by REU, it was either used to come down (perhaps more so among HIV-positive REU) or used by heavy crystal users although it is really "frowned upon in the general partying crowd".

4.10.8 Mushrooms

Three-fifths (60%) of the REU interviewed in 2010 reported having ever used mushrooms and one-in-ten (10%) had done so over the preceding six months. The proportion reporting the recent use of mushrooms was significantly lower in 2010 (10%) than 2009 (21%) (95% CI: -0.21 – -0.01, *p=0.05*). Mushrooms were first used at a median age of 19 years (range 13-35). Those who had recently used mushrooms had done so on a less than monthly basis and the only route of administration described by users of mushrooms was swallowing.

4.10.9 Pharmaceutical stimulants

Approximately half (48%) of participants in 2010 reported having ever used pharmaceutical stimulants and 16% had done so within the six months preceding the interview. Pharmaceutical stimulants were used on a median of 3 days (range 1-95) over the preceding six months.

Licit pharmaceutical stimulants

While eight participants reported having used licitly obtained pharmaceutical stimulants, no REU had used them recently. Licitly obtained pharmaceutical stimulants were first used at a median age of 13 years (range 8-18).

Illicit pharmaceutical stimulants

Almost half of the sample (46%) had ever used illicitly obtained pharmaceuticals and 16% had done so over the preceding six months. Illicit pharmaceutical stimulants were first used at a median age of 18 years (range 12-43). Those who had recently used them had done so on a median of 3 days (range 1-95) over the preceding six months. While the majority of those who had recently used illicitly obtained pharmaceutical stimulants had swallowed them (88%), half this group had also recently snorted them (50%).

Key expert comments

One KE mentioned seeing more people being prescribed pharmaceutical stimulants as adults.

4.10.10 Over the counter drugs

Codeine

The majority (69%) of the sample reported having ever used over the counter codeine containing products and approximately half (46%) had done so over the preceding six months. These products were first used at a median age of 16 years (range 5-30). Swallowing was the most common route of administration. The majority of those who had recently used codeine containing products had done so for the purposes of pain relief although nine participants reported using these products for other reasons. Participants who had used codeine for other reasons were asked whether they experienced any harms associated with its use; however, only two participants reported that this was the case.

Stimulants

Half of the sample (50%) reported having ever used over the counter stimulants (such as Sudafed and Codral) and more than one-quarter (27%) had used them recently. These products were first used at a median age of 16 years (range 7-32). Those who had used them recently had done so on a median of 4 days (range 1-20) over the preceding six months. Swallowing was the most common route of administration.

4.10.11 Performance and image enhancing drugs (PIED)

In 2010, participants were asked about their use of performance and image enhancing drugs. The use of these drugs was very low in the NSW sample of REU with only two participants reporting having ever used them. No REU had recently used PIED.

Key expert comments

One KE reported that the use of steroids is common among gay men.

5 DRUG MARKET: PRICE, PURITY, AVAILABILITY & SUPPLY

5.1 Ecstasy

Summary:

- *Price*: $25 per tablet.
- *Purity*: Currently low and appeared to be declining.
- *Availability*: Currently easy to obtain although appeared to have become slightly more difficult in 2010.
- Key experts agreed that the purity of ecstasy was currently low although it continued to be readily available.

5.1.1 Price

Almost all (95%) participants were able to comment on the price of ecstasy tablets in Sydney. The median price was reported by users to be $25 per tablet (range 10-50) (Table 15). While the majority of the group (61%) reported that the price of ecstasy tablets had remained stable, one-fifth (20%) reported that this price had increased over the six months preceding the interview.

Almost one-quarter (23%) of the sample was able to comment on the price of ecstasy capsules (commonly referred to as caps). Caps were reportedly $30 each (range 15-60). As only three participants were able to comment on the price of ecstasy powder, these data will not be presented here.

Table 15: Price of ecstasy purchased by REU, NSW 2004-2010

	2004	2005	2006	2007	2008	2009	**2010**
Median price /tablet							
($)	35	30	30	30	30	20	**25**
(range)	(13-50)	(15-50)	(20-50)	(15-40)	(15-50)	(11-40)	**(1-50)**
Price change:							
Increased (%)	3	11	3	4	5	6	**20**
Stable (%)	58	54	69	71	68	58	**61**
Decreased (%)	30	26	16	12	17	27	**15**
Fluctuated (%)	6	7	7	8	3	4	**4**
Don't know (%)	4	3	5	5	7	5	**-**

Source: EDRS regular ecstasy user interviews 2004-2010

Note: response option 'don't know' was removed from analyses from 2010 onward.

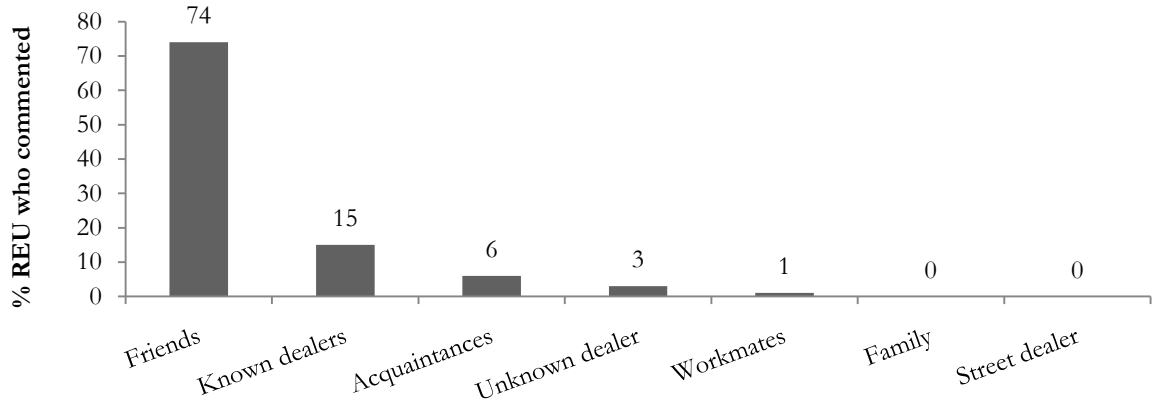
Participants were asked questions regarding their purchasing of ecstasy over the last six months. Participants reported that they had purchased ecstasy from a median of 4 people (range 1-20).

While two-fifths (42%) of the sample usually purchased ecstasy for themselves only, more than half of the sample (58%) had purchased ecstasy for themselves and others. When asked about how frequently they purchased ecstasy, half the sample (49%) reported that they had bought it monthly or less, one-third (35%) fortnightly or less and 10% weekly or less and 6% multiple times a week. The median number of tablets purchased was 5 (range 1-1,000).

Source person and source location of last purchase

Participants were asked to describe the types of person they had last purchased ecstasy from (Figure 27). The majority of the group reported that they had last purchased ecstasy from a friend (74%) although 15% had last bought it from a dealer (who was previously known to them) and 6% from an acquaintance.

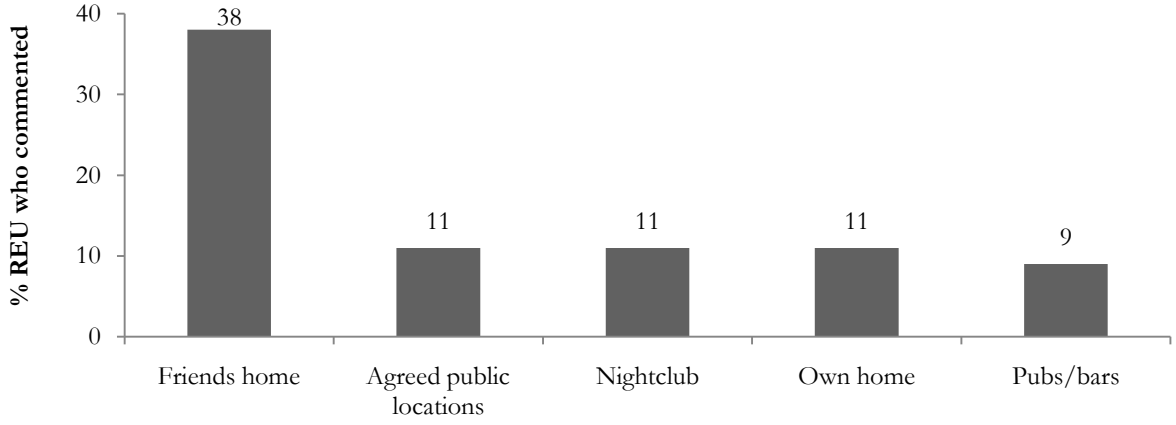
Figure 27: People from whom ecstasy was last purchased, NSW 2010



Source: EDRS regular ecstasy user interviews 2010

Ecstasy was most often obtained at a friend's house (38%) on the last occasion of purchase. Other relatively common locations for purchasing ecstasy were at an agreed public location (11%), a nightclub (11%), at the participant's own home (11%) and at pubs/bars (9%) (Figure 28).

Figure 28: Locations at which methamphetamine was last purchased[#], NSW 2010



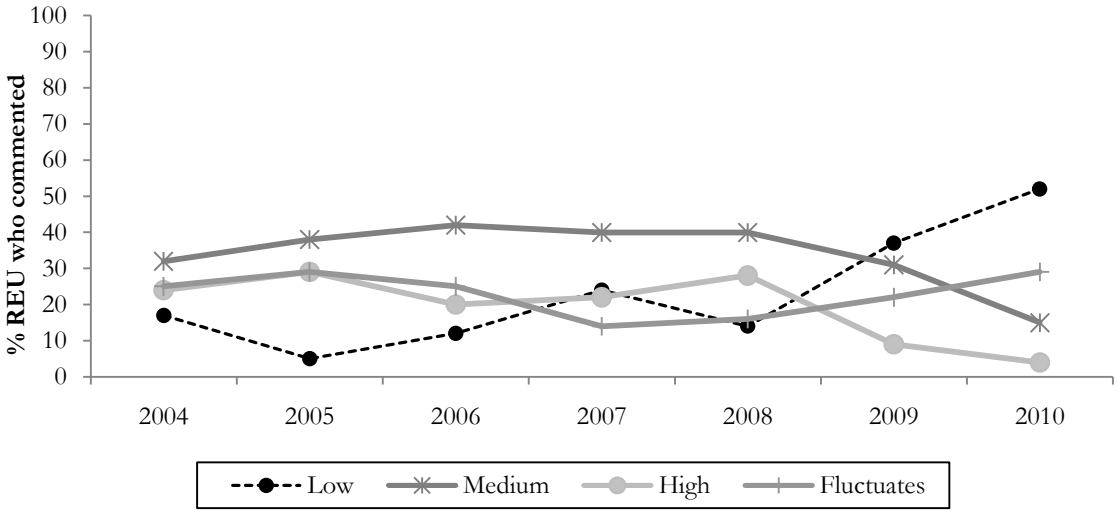
Source: EDRS regular ecstasy user interviews 2010
[#] Locations with <9% response were not included

5.1.2 Purity

Current purity

Figure 29 presents REU reports of ecstasy purity across time. In 2010, half the sample (52%) reported that the current purity of ecstasy was 'low', 15% that it was 'medium', 4% that it was 'high' and 29% reported that it 'fluctuates'. The data in 2010 continues to affirm the general trend, beginning in approximately 2007 or 2008, suggesting that the purity of ecstasy is declining. The proportions reporting that ecstasy was currently of low or fluctuating purity continued to increase and those reporting that ecstasy was of medium or high purity continued to decrease.

Figure 29: REU reports of current ecstasy purity, NSW 2004-2010

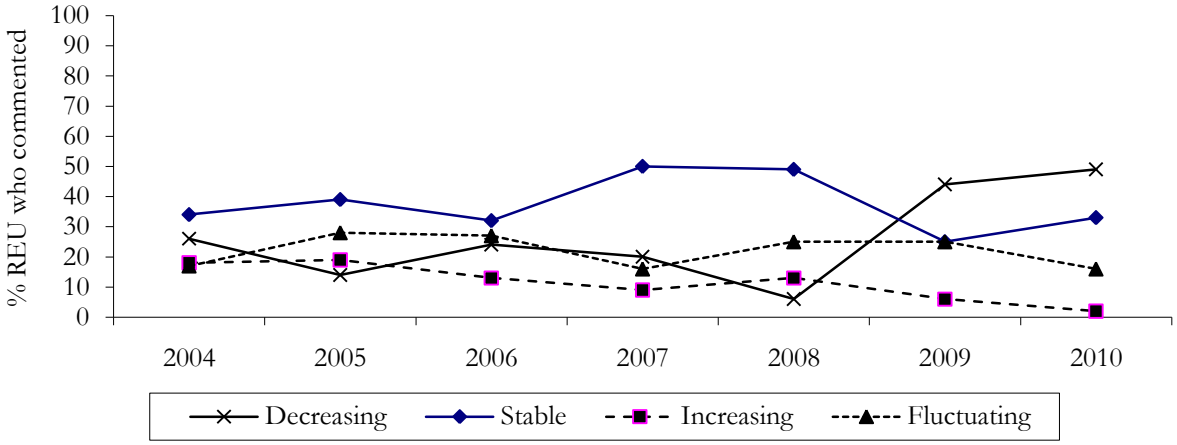


Source: EDRS regular ecstasy user interviews 2004-2010

Purity change

Figure 30 presents REU reports of changes in the purity of ecstasy over the six months prior to the interview. Half the sample (49%) reported that the purity of ecstasy had declined over the six months prior to the interview. One-third (33%) reported that it had remained stable, 16% reported that it was fluctuating and 2% reported that it had increased. These figures have remained relatively stable from 2009 to 2010.

Figure 30: REU reports of change in ecstasy purity in the preceding six months, NSW 2004-2010



Source: EDRS regular ecstasy user interviews 2004-2010
Note: response option 'don't know' was removed from analyses from 2010 onward.

Estimates of purity are necessarily subjective and depend, among other factors, on users' tolerance levels. Laboratory analyses of the purity of seizures of ecstasy provide objective evidence regarding purity changes, and should, therefore, be more highly regarded than the reports of users. However, it is also important to note the limitation of the purity figures calculated by forensic agencies. Not all illicit drugs seized by Australia's law enforcement agencies are analysed for purity. In some instances, seized drugs will be analysed only in a contested court matter. The purity figures, therefore, relate to an unrepresentative sample of the illicit drugs available in Australia. Notwithstanding this limitation, it remains the case that the purity figures provided by forensic agencies remain the most objective measure of changes in purity levels available in Australia.

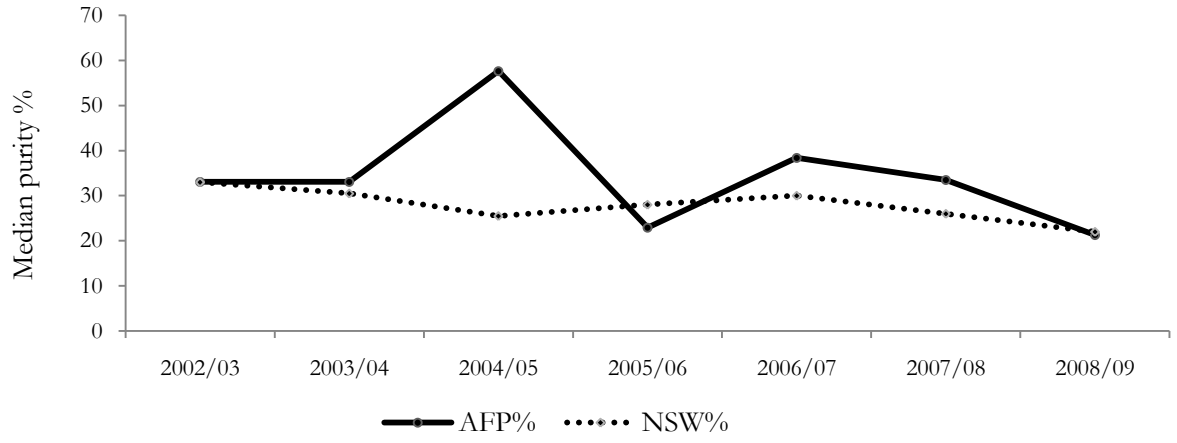
The purity data presented in this report were provided by the Australian Crime Commission (ACC), formerly the Australian Bureau of Criminal Intelligence (ABCI). The ACC reports both federal and state police seizure data, including number and weight of seizures. In 1999/00, the purity was reported as 'ecstasy' seizures. Since 2000/01, ecstasy seizures have been reported under phenethylamines. Ecstasy belongs to the phenethylamine family of drugs. Other drugs such as DOB, DOM, MDA, MDEA, mescaline, PMA, and TMA also belong to the phenethylamine family (Australian Crime Commission, 2003) and seizures of these drugs are included in the seizure data from 2000/01.

Figure 31 presents the median purity of phenethylamines seizures analysed by the NSW Police and Australian Federal Police (AFP) from 2002/03 to 2008/09. The median purity of analysed seizures continued to decline; both for those detected by the AFP (from 33.5% in 2007/08 to 21.3 in 2008/09) and by NSW Police (from 26% in 2007/08 to 22% in 2008/09).

It should be noted that figures do not represent the purity levels of all seizures – only those that have been analysed at a forensic laboratory. In addition, the period between the date of seizure by police and the date of receipt at the laboratory can vary greatly, and no adjustment has been made to account for double-counting joint operations between the AFP and NSW Police. Further, patterns of arrest and police operations change over time; for example, targeting of

higher-level suppliers versus street dealers, and this, in turn, can influence the purity of the drug seized.

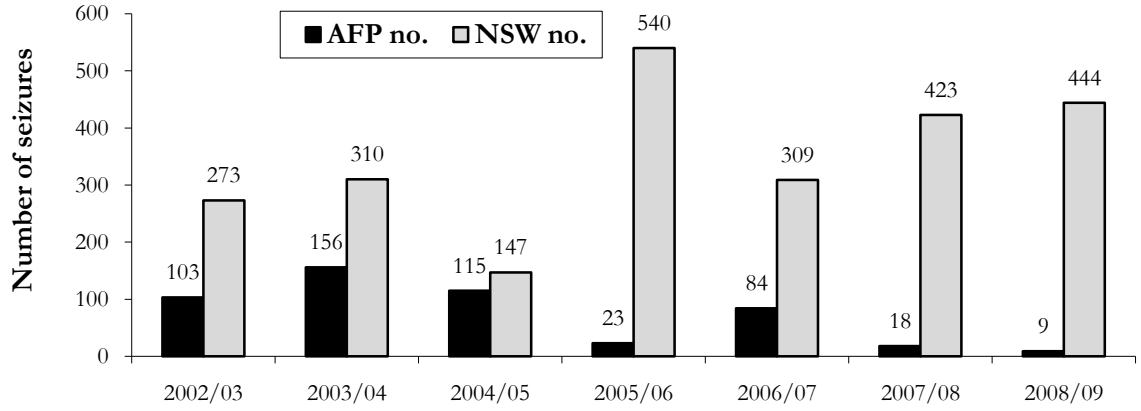
Figure 31: Median purity of phenethylamines seizures 2002/03-2008/09*



Source: Australian Crime Commission (2004, 2005, 2006, 2007, 2008, 2009, 2010)
***Data for 2009/10 were unavailable at time of publication**

The number of phenethylamine seizures made by the AFP has decreased from 18 in 2007/08 to 9 in 2008/09 and, conversely, those made by the NSW Police have increased from 423 to 444 across the same time period (Figure 32). Caution should be used when interpreting the increase in the number of seizures analysed from 2005/06 when compared with previous years as this may reflect an increased police attention toward phenethylamines rather than an increased availability of these drugs.

Figure 32: Number of phenethylamines seizures 2002/03-2008/09*



Source: Australian Crime Commission (2004, 2005, 2006, 2007, 2008, 2009, 2010)
* Data for 2009/10 were unavailable at time of publication

5.1.3 Availability

The large majority (82%) of REU interviewed in 2010 reported that it was currently 'easy' or 'very easy' to obtain ecstasy (Table 16). However, a sizeable minority (18%) reported that it was currently 'difficult' or 'very difficult' to obtain. Furthermore, the proportion indicating that ecstasy was currently easy or very easy to obtain was significantly lower in 2010 than 2009 (96%; 95% CI:0.23–0.05, *p=0.003*).

While the majority (59%) of respondents indicated that the availability of ecstasy had remained 'stable' over the preceding six months, a sizeable minority (25%) reported that it had become more difficult to access. One-tenth of the sample reported that it was 'easier' to access and 6% reported that the availability of ecstasy 'fluctuated' over this time.

Table 16: REU reports of availability of ecstasy in the preceding six months, NSW 2004-2010

Ecstasy variable	2004 (N=104)	2005 (N=100)	2006 (N=100)	2007 (N=100)	2008 (N=100)	2009 (N=100)	**2010* (N=100)**
Current availability:							
Very easy (%)	67	73	60	72	74	52	**41**
Easy (%)	28	25	34	25	22	44	**41**
Availability:							
Stable (%)	72	75	80	81	73	61	**59**
Easier (%)	14	13	5	7	16	22	**10**

Source: EDRS regular ecstasy user interviews 2004-2010
Note: response option 'don't know' was removed from analyses from 2010 onward.

Key expert comments

KE generally agreed that ecstasy remains readily available. Law KE reported that the average purity of MDMA tablets dropped in early 2010 and remains very low. They hypothesised that the reduction in MDMA purity, along with declining rates of MDMA detections may be due partly to law enforcement efforts; to improved relations with south east Asian governments, to reductions in the availability of saffron and also to reductions in the demand for Ecstasy. Law KE involved in processing MDMA seizures reported that large proportions of the tablets analysed over the past 12-18 months (e.g. approximately one-quarter) did not contain any active ingredients aside from caffeine. Among those containing MDMA, common contaminants included BZP, caffeine, paracetamol and methamphetamine.

Other KE reported that REU knowledge of the purity of the tablets they purchase/use is poor and generally involves asking a friend or dealer rather than using testing kits or referring to online forums. A few KE mentioned that some REU seek out MDMA caps instead of pills believing these to be of a higher purity than pills. One KE hypothesised that it may be harder to cut down and re-produce caps unlike pills which are relatively easy to cut and re-press.

Several KE commented on the interactions between the ecstasy and other ERD markets. In particular, KE noted that the purity of ecstasy continued to remain low and hypothesised about whether changes in the cocaine and hallucinogens markets may be associated with this.

5.2 Methamphetamine

Summary:

Speed
- *Price*: $60 per gram.
- *Purity*: Currently medium and appeared to be stable.
- *Availability*: Currently easy to obtain and stable.

Base
- *Price*: $20 per point; $200 per gram.
- *Purity*: Currently medium to high and appeared to be stable.
- *Availability*: Currently easy to obtain and stable.

Crystal
- *Price*: $50 per point.
- *Purity*: Currently medium to high although reports varied.
- *Availability*: Currently easy to obtain although reports varied.

- Key experts agreed that speed and base were of lower purity than crystal. However, some KE reported that the purity of crystal was declining.

5.2.1 Price

Speed

Fifteen participants reported on the price of speed over the six months prior to the interview (Table 17). The median price reported the last time speed was purchased was $55 a gram (range $30-150). One participant had last purchased a 'half weight' (widely accepted to be half a gram) for $30. Two thirds of those who commented (67%) believed the price of speed had remained stable over the preceding six months, although 20% reported that it had increased, 7% reported that it had decreased and 7% that it had fluctuated (Figure 33).

Base

Twelve participants were able to report on the price of base overall, however, since smaller numbers reported on each individual price, these figures must be interpreted with caution. Four participants had last purchased a point of base and reported a median price of $20 per point (range $10-50). Seven participants had last purchased base by the gram and reported a median price of $200 per gram (range $60-450) (Table 17). The majority (75%) of those who commented felt the price of base had remained stable over the preceding six months, although, 17% reported an increase and 8% a decrease (Figure 33).

Crystal

Seventeen participants were able to comment on the price of crystal over the preceding six months. The median price for a point of crystal was $50 (range $40-90). One participant had purchased half a gram of crystal for $200 (Table 17). Among those who commented on changes to the price of crystal over this time, similar proportions reported that it had remained stable (41%) and that it had increased (47%) and a small proportion (12%) reported that it had fluctuated (Figure 33).

Table 17 presents data collected on the price of methamphetamines from 2004 onward. The reported price of speed has increased from a median of $47.50/gram in 2009 to $55/gram in 2010. The reported price of a point of base appears to have declined from 2008 onward, while the price of a gram of base appears to be increasing across time (from 2007 onward). Note that caution should be used here since very small numbers of participants were able to report on the price of base. The price of a point of crystal has remained stable from 2009 to 2010.

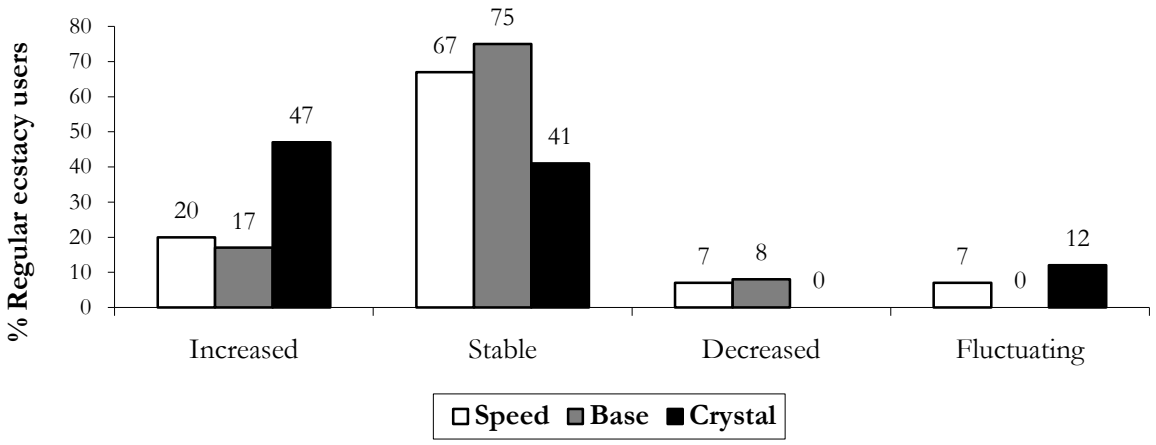
Table 17: Price of various methamphetamine forms purchased by REU, NSW 2004-2010

Median price ($) (range)	2004	2005	2006	2007	2008	2009	**2010**
Speed	n=60	n=78	n=50	n=23	n=27	n=18	**n=14**
Point	30 (20-40)	40	40 (30-50)	47.5 (40-50)	-	-	**-**
Gram	60 (60-90)	60 (30-200)	60 (30-350)	50 (30-200)	50 (20-100)	47.5 (10-100)	**55 (30-150)**
Half gram	30 (20-50)	37.5 (15-50)	50 (45-70)	-	40* (30-50)	45* (40-50)	**30***
Base	n=30	n=51	n=24	n=9	n=13	n=13	**n=16**
Point	37.50 (20-70)	30 (10-200)	37.5 (20-50)	40 (15-50)	42.5 (20-70)	30* (20-60)	**20* (10-50)**
Gram	150 (100-200)	150 (100-260)	100 (12-120)	100 (50-200)	150* (120-300)	150* (100-200)	**200* (60-450)**
Half gram	100	50	-	-	-	90* (65-100)	**-**
Crystal	n=34	n=51	n=54	n=37	n=27	n=9	**n=18**
Point	40 (25-100)	50 (20-80)	50 (30-80)	50 (30-60)	50 (40-60)	50* (50-80)	**50 (40-90)**
Gram	200 (150-400)	400 (100-500)	350 (50-400)	315 (280-350)	300*	-	**-**
Half gram	150	-	-	-	-	-	**200***

Source: EDRS regular ecstasy user interviews 2004-2010
***Small numbers reporting n<10**

Figure 33 shows REU impressions of the price of methamphetamines over the preceding six months. For speed and base, the majority of those who commented reported that the price had remained stable. The picture was not as clear for crystal which is consistent with the increasing range around the price estimates for this drug seen in Table 17.

Figure 33: Recent changes in price of various methamphetamine forms purchased by REU*, NSW 2010

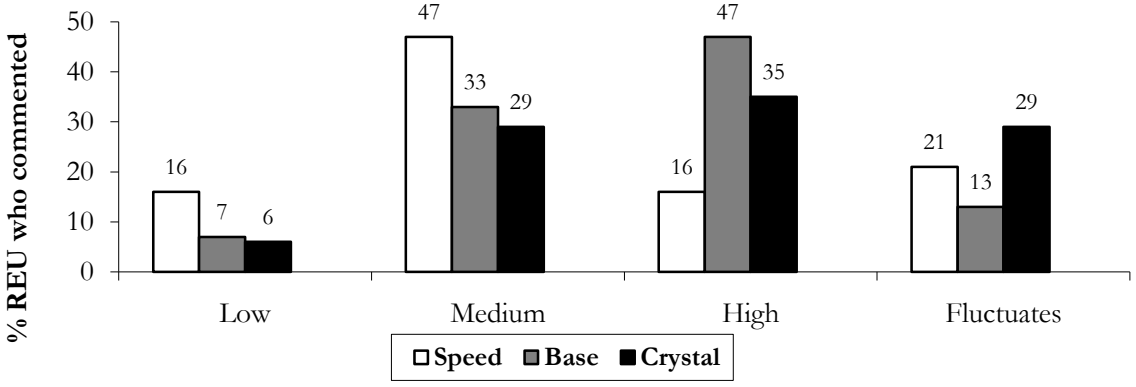


Source: EDRS regular ecstasy user interviews 2010
*** Of those who commented (speed n=14; base n=12; crystal n=17)**
Note: response option 'don't know' was removed from analyses from 2010 onward.

5.2.2 Purity

The majority of participants reporting on the purity of speed believed it was currently of 'medium' purity. Base and crystal were generally reported to be currently of either 'medium' or 'high' purity (Figure 34).

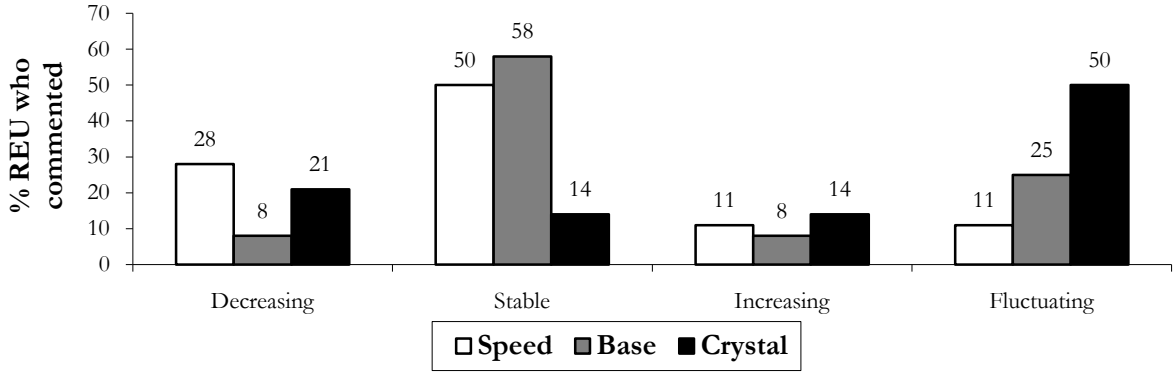
Figure 34: REU reports* of current methamphetamine purity, NSW 2010



Source: EDRS regular ecstasy user interviews 2010
*** Of those who commented (speed n=19; base n=15; crystal n=17)**

Figure 35 presents data on the perceived change in purity of speed, base and crystal over the six months preceding the interview. The purity of speed was largely reported to have remained stable although a sizeable minority felt it had decreased recently. The purity of base was generally reported to have remained stable and in contrast, the purity of crystal was highly variable.

Figure 35: REU reports* of changes in methamphetamine purity in the past six months, NSW 2010

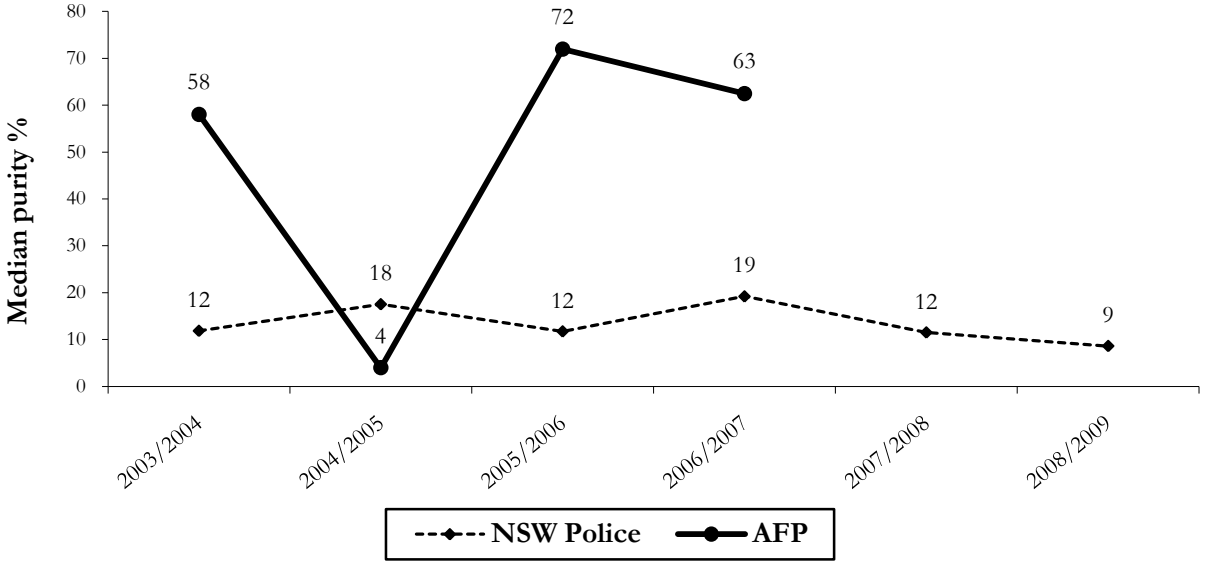


Source: EDRS regular ecstasy user interviews 2010
*** Of those who commented (speed n=18; base n=12; crystal n=14)**

Figure 36 shows the median purity of methylamphetamine seizures analysed in NSW for the period July 2003/June 2004 to July 2008/June 2009. The median purity of methylamphetamine seizures analysed has been declining for the past three years from 19% in 2006/07 to 9% in 2008/09 (Figure 36), according to data gathered by NSW Police. Over time, there has been much greater variation in the seizures analysed by the AFP and they have generally been of a higher median purity. Note that the majority of these seizures are likely to be from targeted, higher level operations than those made by state police. Thus it may be expected that these seizures would generally be of higher purity and that there would be fewer AFP seizures compared with those made by NSW Police. No methylamphetamine seizure purity data was available from the AFP for the period July 2008 to June 2009.

It should be noted that figures do not represent the purity levels of all methylamphetamine seizures – only those that have been analysed at a forensic laboratory. In addition, the period between the date of seizure by police and the date of receipt at the laboratory can vary greatly, and no adjustment has been made to account for double-counting joint operations between the AFP and NSW Police.

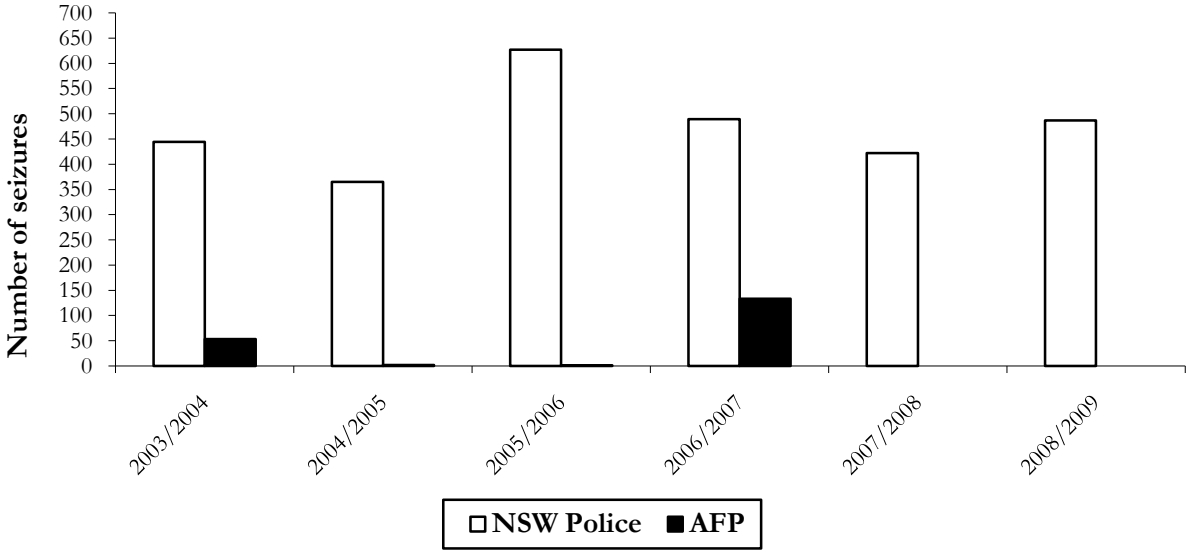
Figure 36: Purity of methylamphetamine seizures analysed in NSW, 2003/04-2008/09



Source: Australian Crime Commission (2004, 2005, 2006, 2007, 2008, 2009, 2010)
NB: Data for 2009/10 were unavailable at time of publication

Figure 37 shows the number of methylamphetamine seizures upon which the above purity figures are based. The number of seizures analysed in NSW appears to have remained relatively stable over the past three years. No methylamphetamine seizures were reported for the AFP over the period July 2008 to June 2009.

Figure 37: Number of methylamphetamine seizures analysed in NSW, 2003/04-2008/09.

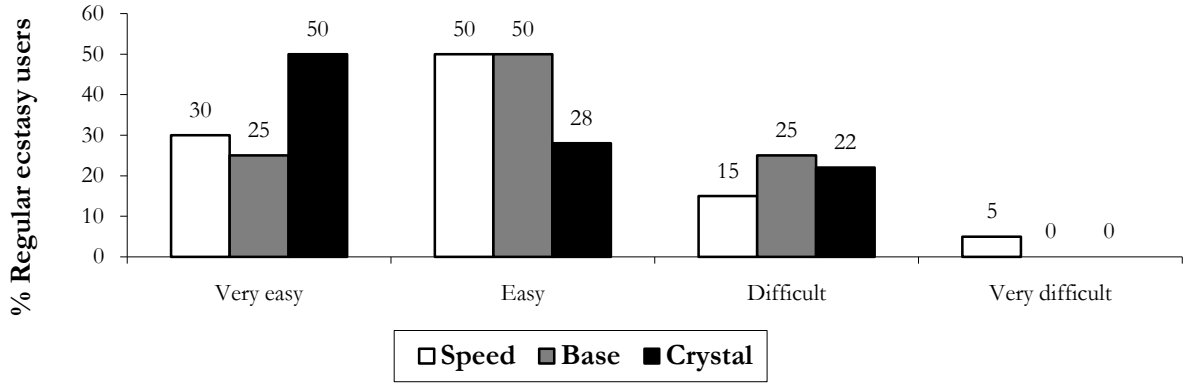


Source: Australian Crime Commission (2004, 2005, 2006, 2007, 2008, 2009, 2010)
NB: Data for 2009/10 were unavailable at time of publication

5.2.3 Availability

Speed (80%), base (75%) and crystal (78%) were generally considered 'easy' or 'very easy' to obtain (Figure 38) at the time of interviewing in 2010.

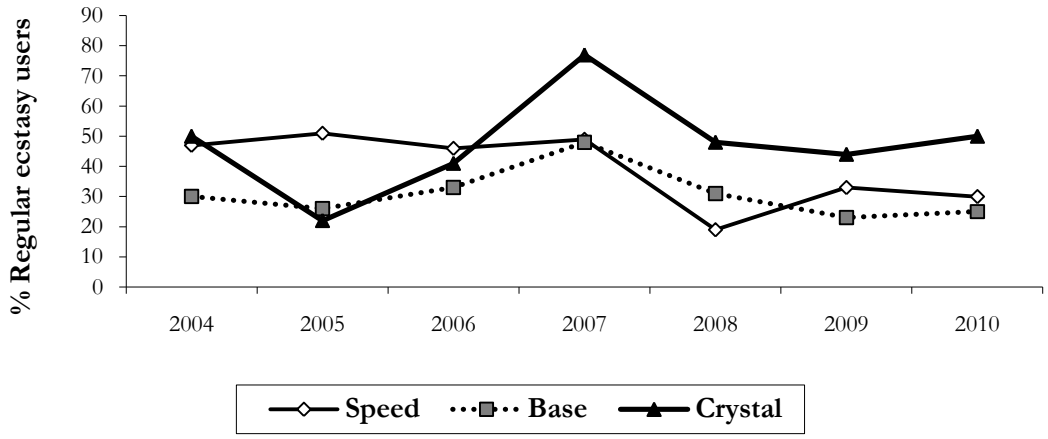
Figure 38: REU reports* of current availability of methamphetamine forms, NSW 2010



Source: EDRS regular ecstasy user interviews 2010
*** Of those who commented (speed n=23; base n=16; crystal n=18)**

Figure 39 shows the proportion of REU reporting the availability of the three forms of methamphetamine as 'very easy' to obtain, over time. This figure has remained relatively stable from 2009 to 2010 across all three forms of methamphetamine investigated. This suggests that the availability of methamphetamine has remained relatively stable over this time.

Figure 39: Proportion of REU reporting methamphetamine as 'very easy' to obtain across time, NSW 2004-2010

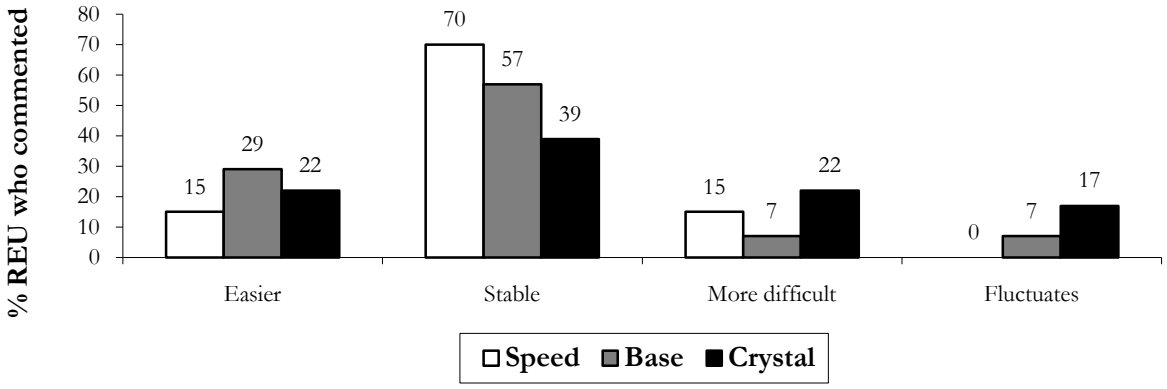


Source: EDRS regular ecstasy user interviews 2004-2010

Figure 40 presents the perceived change in availability of speed, base and crystal over the six months prior to interviewing. Most participants who commented (70%) believed that the availability of speed had remained stable. Half of those who commented reported that base had been equally available over this time, however, one-quarter of this group felt it had become easier to access. There appeared to be some uncertainty regarding the availability of crystal with

similar proportions reporting that it had become easier to obtain (22%), more difficult to obtain (22%) and that the availability of crystal had been fluctuating (17%).

Figure 40: Change in the availability of various forms of methamphetamine in the preceding six months*, NSW 2010

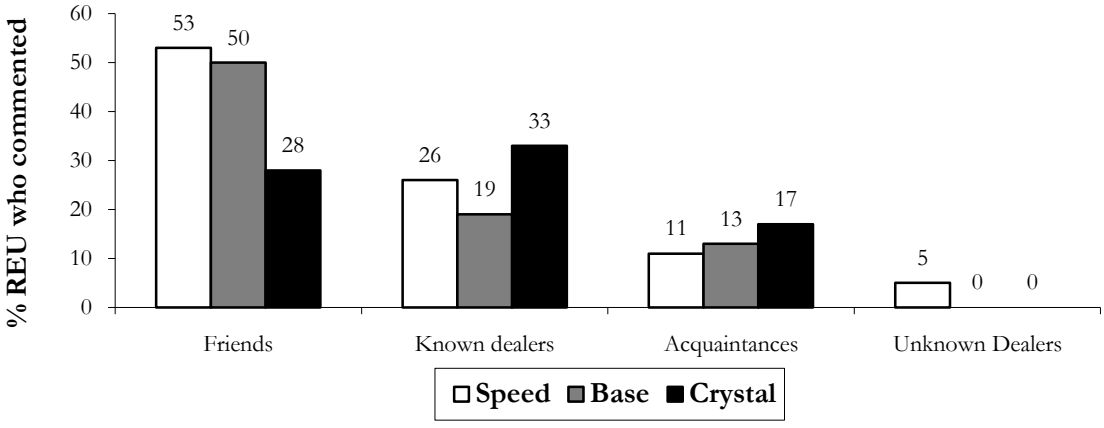


Source: EDRS regular ecstasy user interviews 2010
*** Of those who commented (speed n=20; base n=14; crystal n=18)**

Source person and source location

Overall, methamphetamines were most commonly purchased from friends or known dealers. Speed and base were most commonly last purchased from friends, while crystal was most commonly last purchased from a known dealer. Small numbers reported having purchased methamphetamines from acquaintances and unknown dealers (Figure 41).

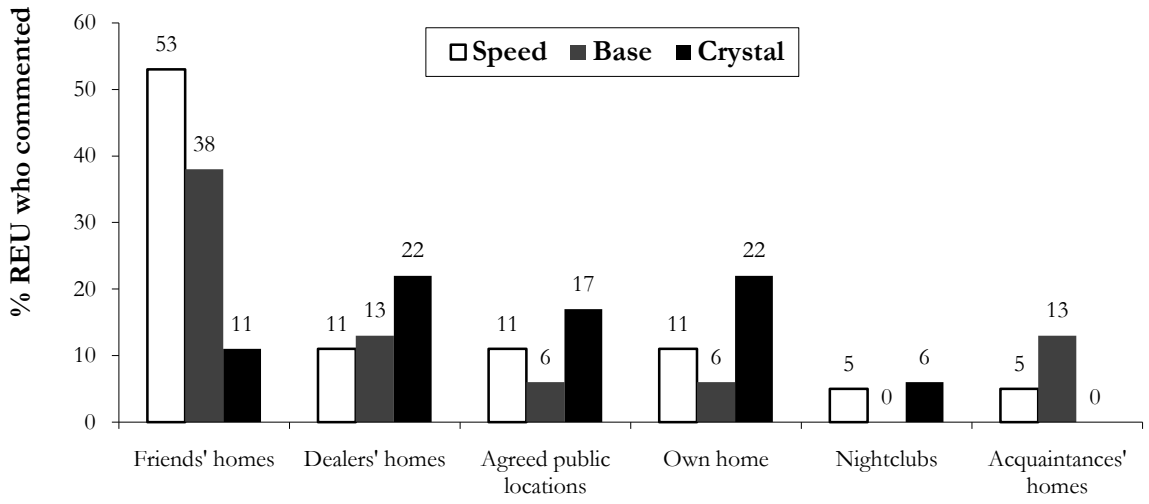
Figure 41: People from whom methamphetamine was last purchased, NSW 2010[#]



Source: EDRS regular ecstasy user interviews 2010
[#] Speed n=20; base n=16; crystal n=18

Figure 42 compares locations of last purchase across the three forms of methamphetamine. REU interviewed had most commonly last purchased methamphetamine in private locations. Speed and base were most commonly purchased at a friend's home. Crystal was purchased across a greater variety of settings, most commonly at a dealer's home or the participant's own home.

Figure 42: Locations at which methamphetamine was last purchased, NSW 2010[#]



Source: EDRS regular ecstasy user interviews 2010
[#] Speed n=20; base n=16; crystal n=18

Key expert comments

The few key experts who commented on speed and base generally agreed that they were less commonly used than crystal and were of low purity. Several KE commented on crystal, commonly noting that it had declined in popularity. A few KE mentioned that this may be due to a decline in purity. One KE hypothesised that dealers had recently identified ways to add adulterants to crystal to "cut it down" in purity (which is difficult due to its crystalline form) which was leading to declining purity and thus, declining interest in crystal among REU. A law KE involved in processing seized methamphetamines reported that the purity of methamphetamines in general has declined. They observed that methamphetamines were commonly found to have caffeine, dymethylamphetamine, MDMA, paracetamol and pseudoephedrine in them either as added adulterants or by-products of their manufacture.

5.3 Cocaine

Summary:

- *Price*: $300 per gram.
- *Purity*: Reports variable.
- *Availability*: Appeared to have become easier to obtain.
- Key experts agreed that the price and purity of cocaine had remained relatively stable although the availability had increased.

5.3.1 Price

Forty four participants were able to comment on the price of cocaine. The median price per gram was $300 (range $200-450). This figure has remained stable for the past five years (Table 18).

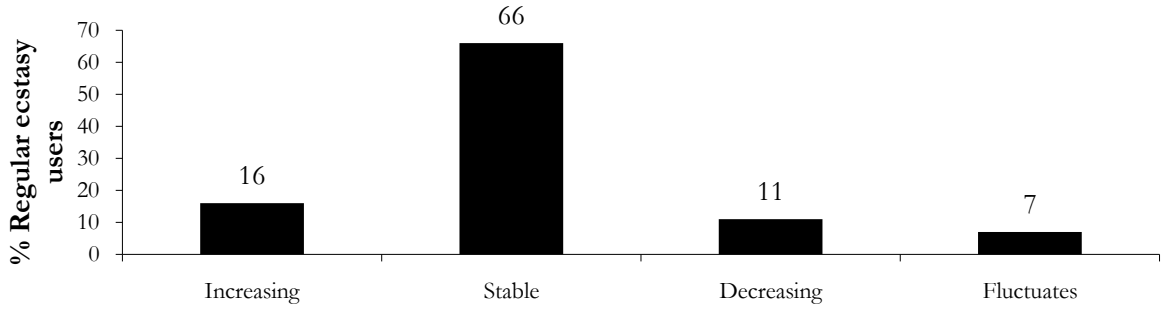
Table 18: Price of cocaine purchased by REU, NSW 2004-2010

	2004	2005	2006	2007	2008	2009	**2010**
Median price per gram ($) (range)	200 (200-450)	270 (70-500)	300 (100-300)	300 (180-350)	300 (250-400)	300 (120-400)	**300 (200-450)**

Source: EDRS regular ecstasy user interviews 2004-2010

The majority (66%) of those who commented on the price of cocaine believed it had remained stable over the preceding six months (Figure 43).

Figure 43: Recent changes in price of cocaine purchased by REU, NSW 2010

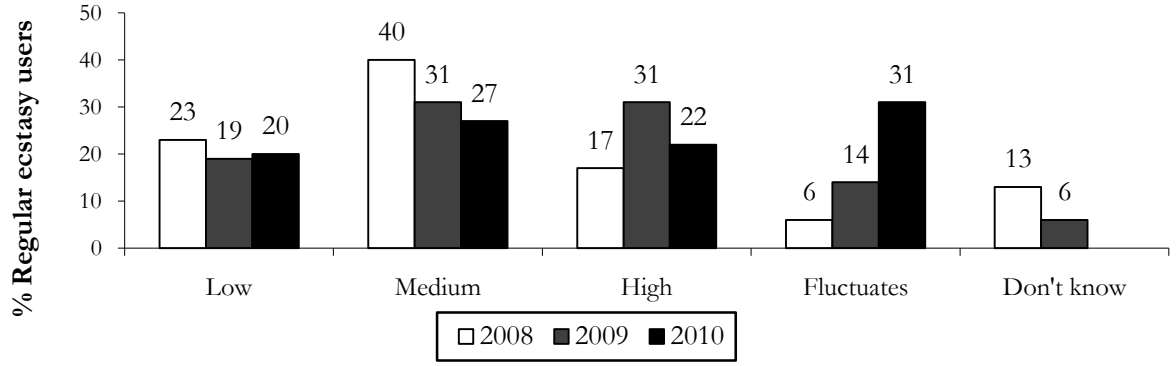


Source: EDRS regular ecstasy user interviews 2010

5.3.2 Purity

Forty-five REU were able to comment on the purity of cocaine. There was some disagreement among respondents regarding the purity of cocaine. Figure 44 presents REU reports of the purity of cocaine at the time of interviewing across three consecutive sampling years (2008 to 2010). There appears to be an increasing proportion of this group reporting fluctuating purity of cocaine from 6% in 2008 to 31% of respondents in 2010. These data together suggest that the current purity of cocaine is variable.

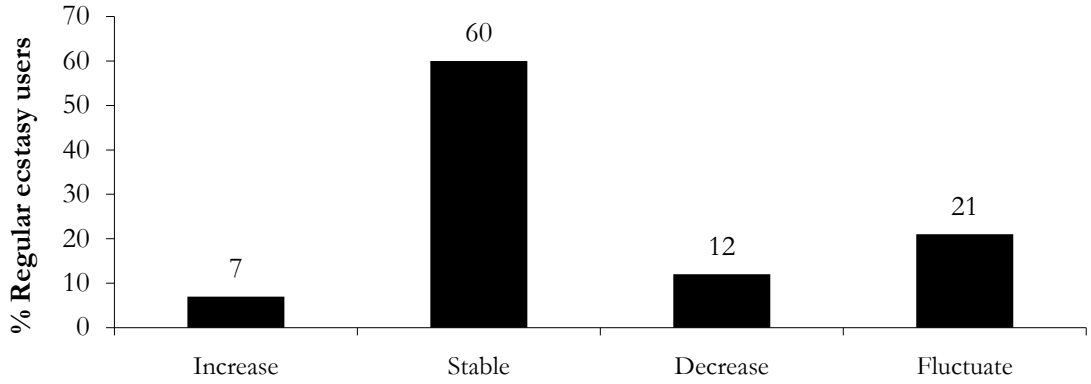
Figure 44: User reports of current purity of cocaine, NSW 2008-2010



Source: EDRS regular ecstasy user interviews 2010
Note: response option 'don't know' was removed from analyses from 2010 onward.

More than half of those who commented reported that the purity of cocaine had remained stable over the preceding six months; however, one-fifth reported that it had fluctuated over this time (Figure 45).

Figure 45: User reports of changes in cocaine purity in the past six months, NSW 2010

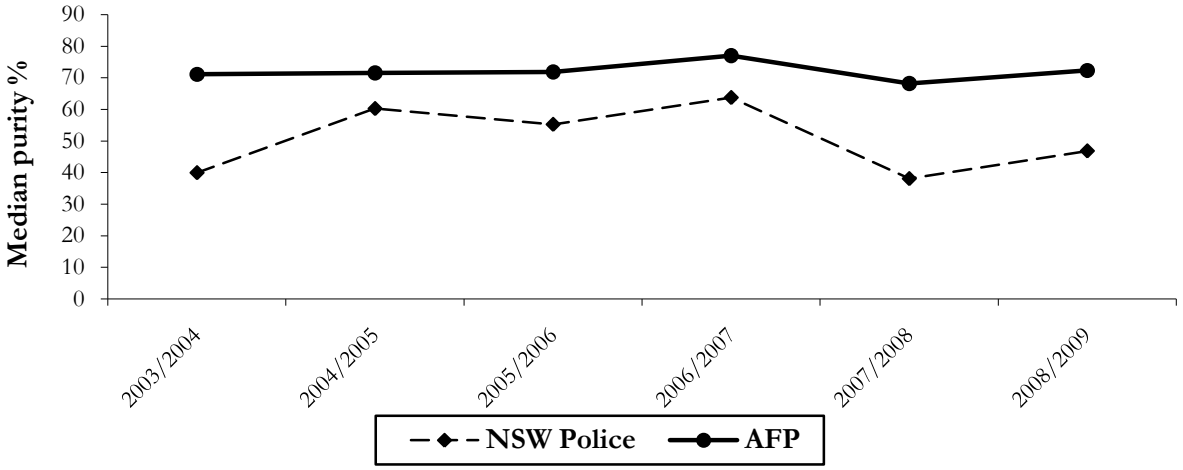


Source: EDRS regular ecstasy user interviews 2010

Figure 46 presents data on the purity of cocaine seizures analysed in NSW by the AFP and NSW Police between July 2003 and June 2009. From 2007/08 to 2008/09 the purity of cocaine analysed appears to have remained relatively stable. The purity of seizures analysed by NSW police continued to be substantially lower than those analysed by the AFP.

It should also be noted that figures do not represent the purity levels of all cocaine seizures – only those that have been analysed at a forensic laboratory. The period between the date of seizure by police and the date of receipt at the laboratory can vary greatly. No adjustment has been made to account for double-counting joint operations between the AFP and state/territory police.

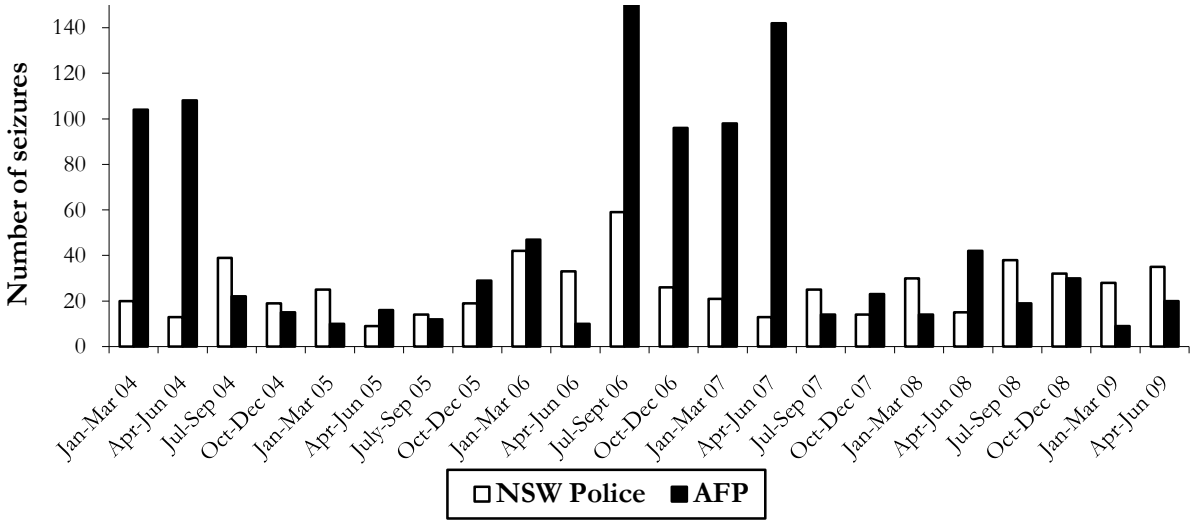
Figure 46: Purity of cocaine seizures analysed in NSW, 2003/04-2008/09



Source: Australian Crime Commission (2004, 2005, 2006, 2007, 2008, 2009, 2010)
NB: Data for 2009/10 were unavailable at time of publication

Figure 47 shows the number of seizures analysed in NSW between January 2004 and June 2009. The number of seizures analysed by NSW Police remained relatively stable from July 2008 to June 2009 while the number of seizures analysed by the AFP was more variable.

Figure 47: Number of cocaine seizures analysed in NSW, by quarter, 2004-2009



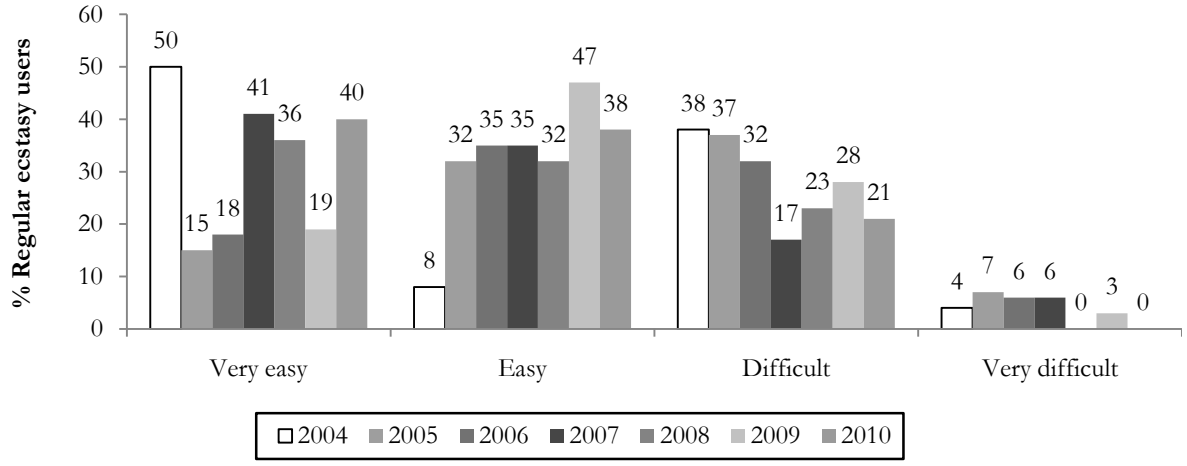
Source: Australian Crime Commission (2004, 2005, 2006, 2007, 2008, 2009, 2010)
NB: Data for 2009/10 were unavailable at time of publication

5.3.3 Availability

Forty seven participants were able to comment on the availability of cocaine. Of these, the majority (78%) believed cocaine was currently either 'easy' or 'very easy' to obtain; however, a large proportion (21%) reported that it was currently 'difficult' to obtain.

Figure 48 presents changes across time in the reported current availability of cocaine. From 2004 to 2010 there appears to have been a general decline in the proportions reporting that cocaine was difficult to access from 38% to 21% and associated increases in the proportions reporting that cocaine is easy or very easy to obtain.

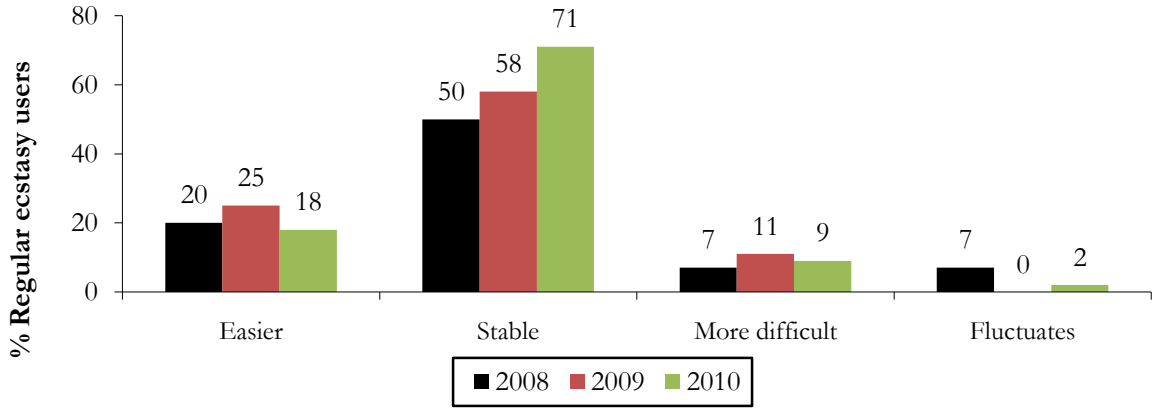
Figure 48: Current availability of cocaine, NSW 2004-2010



Source: EDRS regular ecstasy user interviews 2004-2010

Figure 49 presents reported changes to the availability of cocaine during the six months prior to interviewing from the EDRS in 2008 to 2010. In 2010, seventy-one percent of respondents reported that the availability of cocaine had been stable over the preceding six months although almost one-fifth (17%) reported that it had become easier to obtain. Examining the data across time, there appears to have been an increase in participants reporting that the availability of cocaine had remained stable. However, a sizeable minority (approximately one-fifth of respondents) continues to report that cocaine had becoming easier to obtain over this period.

Figure 49: Changes to the availability of cocaine in the preceding six months, NSW 2008-2010

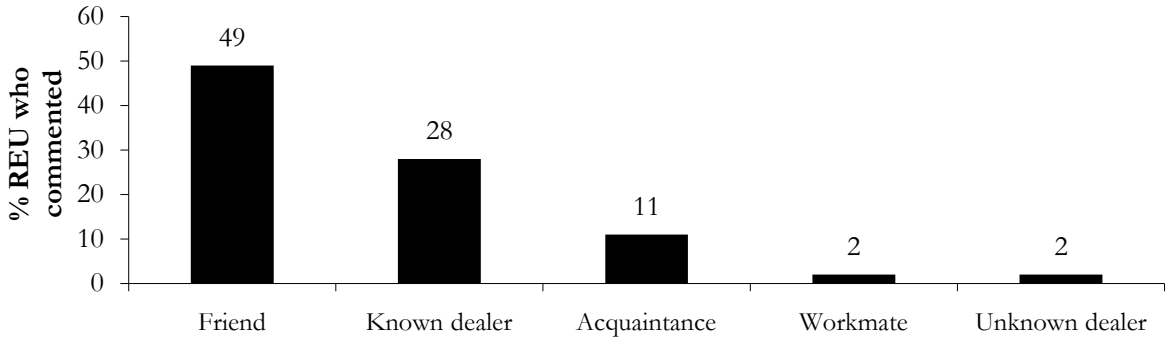


Source: EDRS regular ecstasy user interviews 2008-2010
Note: response option 'don't know' was removed from analyses from 2010 onward.

Source person and source location

Of those who commented on purchasing cocaine over the preceding six months (n=47), the majority had purchased it from a friend or a known dealer. Smaller proportions reported having purchased it from an acquaintance, a workmate or an unknown dealer (Figure 50).

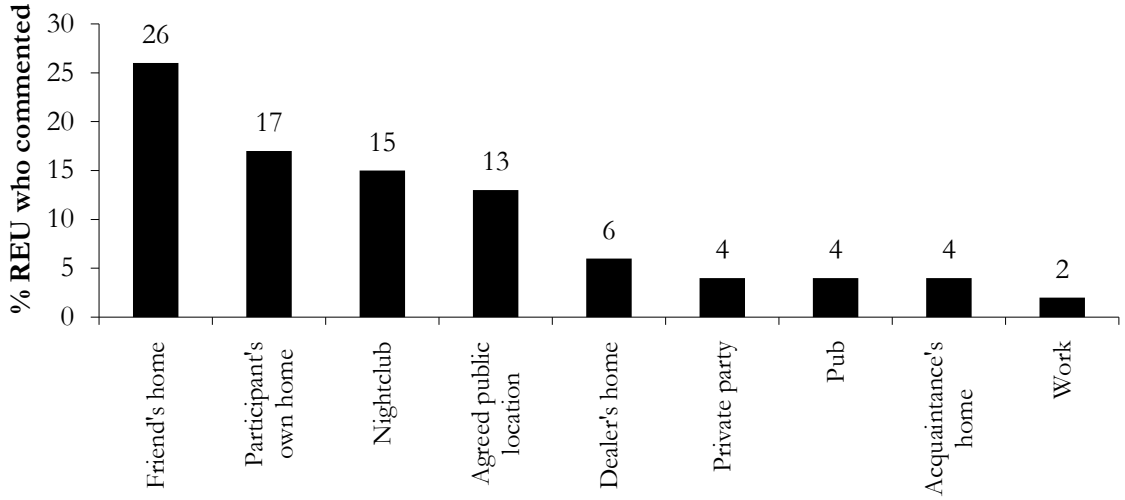
Figure 50: People from whom cocaine was last purchased, NSW 2010



Source: EDRS regular ecstasy user interviews 2010

Participants were asked to specify the location they had last purchased cocaine (Figure 51). One-quarter of respondents had last purchased cocaine at a friend's home, approximately one in five at their own home, 15% at a nightclub and 13% at an agreed public location.

Figure 51: Locations at which cocaine was last purchased, NSW 2010



Source: EDRS regular ecstasy user interviews 2010

Key expert comments

Several KE were able to comment on cocaine and most agreed that the price and purity had remained relatively stable and that the availability had increased over the past 6 to 12 months. A few KE had observed that cocaine is still associated with being cool and had noted an increase in the use of cocaine over the past year. One KE mentioned that the purity of cocaine has remained relatively constant when purchasing in large quantities, however, it can become much more variable at lower quantities. Another KE involved in processing cocaine seizures observed that the purity of cocaine analysed had remained fairly stable, although there had been an increase in the number of seizures analysed that contained Levamisole. In 2010, almost all seizures analysed reportedly contained Levamisole, a good indication that most of the cocaine available in the market was being imported from Cuba. Levamisole is an antihelminthic drug used mainly in veterinary medicine and a known cause of agranulocytosis (Centers for Disease Control and Prevention, 2009). Agranulocytosis is an acute condition involving a severe reduction in a person's white blood cell count which can leave them at a very high risk of serious infection.

5.4 Ketamine

Summary:

- *Price*: $150 per gram.
- *Purity*: Currently high although changes over time variably reported.
- *Availability*: Reports variable.
- Key experts reported the supply of ketamine was irregular although price and purity were thought to have remained stable.

5.4.1 Price

The median price of ketamine was $150 per gram (range $140-$170) although due to the small numbers reporting, this figure must be interpreted with caution. There was one report of ketamine purchased by the point at $20. Five respondents reported the price of ketamine had remained stable over the preceding six months and three respondents believed it had increased.

The reported price of ketamine has remained stable for the past four years at $150 per gram (Table 19). Over this time, the price range has been quite large, possibly indicating that the street price can be quite variable.

Table 19: Price of ketamine purchased by REU, NSW 2004-2010

Median Price ($)	2004 (n=24)	2005 (n=44)	2006 (n=7)	2007 (n=15)	2008 (n=13)	2009 (n=6)	**2010 (n=7)**
Gram (range)	200 (100-200)	100 (20-300)	175 (80-200)	150 (50-280)	150 (40-250)	150 (140-170)	**150 (100-280)**

Source: EDRS regular ecstasy user interviews 2004-2010

5.4.2 Purity

Eleven participants were able to comment on the purity of ketamine. Most of these (46%) reported that ketamine was currently of 'high' purity, although 27% reported that it was currently of 'medium' and 'low' purity respectively. There was little consensus about changes in purity over the preceding six months as similar proportions reported that it had been increasing (30%) and decreasing (40%). While one participant believed the purity of ketamine had remained stable, two others reported that it had been fluctuating. This latter position is probably better supported by the even spread of responses indicating increases and decreases in purity.

5.4.3 Availability

Eleven participants commented on the availability of ketamine. There was again, little consensus about the current availability of ketamine with similar proportions reporting that it was currently 'easy' or 'very easy' to obtain (46%) and that it was currently 'difficult' or 'very difficult' to obtain (55%). When asked about changes in the availability of ketamine over the preceding six months, two-fifths (40%) of respondents stated that it had become more difficult to obtain, two-fifths (40%) that the availability had remained stable and 20% that it had become easier to obtain.

Source person and source location

The majority of those who commented (73%) reported that on the last occasion they had purchased ketamine from a friend. In keeping with this, 46% reported that they had last purchased ketamine at a friend's home although 18% reported having last purchased it at a nightclub. Smaller proportions reported having last purchased ketamine from dealers and acquaintances and having done so in their own home, their dealer's home, a private party or an acquaintance's home. In general, ketamine was purchased from friends in private settings.

Key expert comments

Most of the KE who commented on ketamine reported that they had "not heard much about ketamine lately". A few KE had noted that the availability of ketamine was irregular and one hypothesised that this may be due to ketamine being "mostly diverted or imported". Only one KE was able to comment on the price and purity of ketamine and thought they had remained stable.

5.5 GHB

Summary:

- *Price*: $10 per mL.
- *Purity*: Currently medium to high.
- *Availability*: Currently easy to obtain and has remained stable.
- Key experts agreed that the price and purity of GHB had remained stable although comments on availability were variable.

5.5.1 Price

Given the confusion regarding the size of vials in which GHB is typically purchased, and the uncertainty around what constitutes a typical dose, it is not surprising that there is wide variation and seemingly inconsistent reports of the price of GHB between years.

In 2009, three participants reported that the median price for a vial/'fish' of GHB was $12 (range $10-22.50) and three participants reported a median price of $7 (range $5-15) for 1 mL.

In 2010, three participants reported that the median price of GHB was $10 per mL (range $8-12). Consistent with this, three participants reported that the price of 2mL of GHB was $20 (range $15-20). Anecdotally, participants often commented that a 'fish' of GHB usually contains 2mL and this was a very common quantity purchased.

Eight participants commented on the change in price of GHB over the preceding six months. Four of these reported that it had been fluctuating, two that it had decreased and two that it had remained stable. Again, since such small numbers commented on the price of GHB, it is difficult to identify trends and draw strong conclusions from this data and it is presented as an indicator of the market only.

5.5.2 Purity

Ten participants were able to comment on the purity of GHB. The majority (60%) reported that it was currently of 'high' purity, one-third (30%) stated that it was of 'medium' purity and one person reported that the purity was fluctuating. When asked about changes to the purity of GHB over the preceding six months, 30% reported that it had remained stable, two-fifths (40%) that it had been decreasing and 30% that it had been fluctuating.

5.5.3 Availability

Twelve participants were able to comment on the availability of GHB. Three-quarters of this group reported that it was either 'easy' or 'very easy' to access GHB at the current time and one-quarter reported that it was currently 'difficult' to access. Two-fifths (50%) of respondents indicated that the availability of GHB had remained stable while one-quarter stated that it had become easier to obtain. One participant respectively reported that it had become more difficult to obtain and that GHB had been variably available over the past six months.

Source person and source location

GHB had been most commonly purchased from friends (42%), known dealers (33%) or acquaintances (8%), at the respondent's home (25%), a nightclub (25%), a friend's home (17%) or an agreed public location (17%).

Key expert comments

A few KE were able to comment on the price of GHB/GBL and noted that it had remained relatively stable over the past 6 to 12 months. One KE stated that some REU considered GHB a cheaper alternative to alcohol and other drugs. A few KE reported on the purity of GHB/GBL saying it had remained relatively stable and that there was reportedly more GBL available currently than GHB. There were mixed reports about the availability of GHB with some KE stating that it was easily accessible and others reporting that they had "not heard much about GHB lately" or that the availability was fluctuating.

5.6 LSD

Summary:

- *Price*: $20 per tab.
- *Purity*: Currently medium to high and stable.
- *Availability*: Currently easy to obtain and had remained stable.
- Key experts agreed that the reported purity of LSD had remained relatively stable and the availability was known to fluctuate.

5.6.1 Price

Thirty one participants reported on the price of LSD (Table 20). The median price last paid for a tab of LSD was $20 (range $2-30). The majority of those who commented (79%) reported that the price had remained stable over the preceding six months; however, 14% reported that it had increased, 3% reported that it had decreased, and 3% reported that it had fluctuated.

Table 20: Price of LSD purchased by REU, NSW 2004-2010

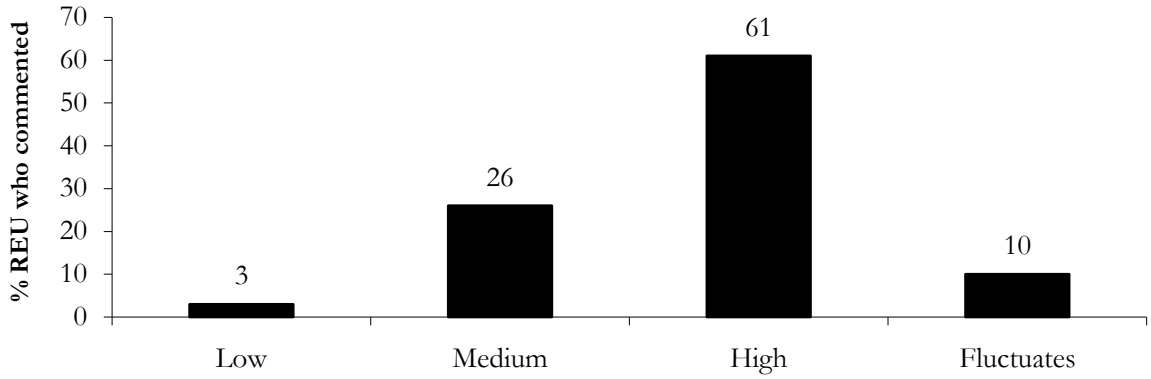
Median price ($)	2004 (n=18)	2005 (n=38)	2006 (n=27)	2007 (n=34)	2008 (n=12)	2009 (n=30)	**2010 (n=31)**
Tab (range)	20 (10-35	20 (5-40)	20 (10-70)	15 (10-25)	15 (10-50)	20 (10-40)	**20 (2-30)**

Source: EDRS regular ecstasy user interviews 2004-2010

5.6.2 Purity

Thirty one participants commented on the purity of LSD. Of these, the majority (61%) reported that LSD was currently of 'high' purity and one-quarter (26%) that it was of medium purity. Smaller proportions reported differently (Figure 52). Two-thirds (67%) of those who commented reported that the purity of LSD had remained 'stable' over the preceding six months, 17% reported that it had been 'increasing', 10% that it had been decreasing and 7% reported that it had 'fluctuated'.

Figure 52: Current purity of LSD, NSW 2010

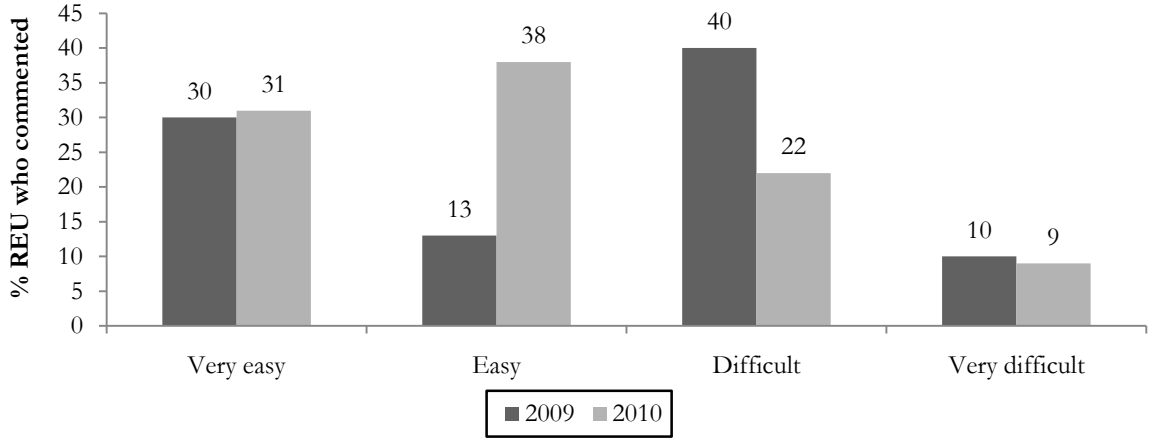


Source: EDRS regular ecstasy user interviews 2010

5.6.3 Availability

More than two-thirds of respondents (69%) believed that LSD was currently 'easy' or 'very easy' to obtain, one-fifth (22%) that it was 'difficult' and 9% that it was 'very difficult' to obtain (Figure 53). The majority of those who commented reported that the availability of LSD had remained stable (67%) and one-fifth (23%) reported that it had become easier to obtain. Smaller proportions reported that it had become more difficult (7%) to obtain or that the availability fluctuated (3%). Compared to 2009, a higher proportion appeared to indicate that LSD was easy/very easy to obtain and there was higher agreement that the availability had remained relatively stable.

Figure 53: Current availability of LSD, NSW 2009-2010.



Source: EDRS regular ecstasy user interviews 2009-2010
Note: response option 'don't know' was removed from analyses from 2010 onward.

Source person and source location

LSD was most commonly purchased from friends (70%) or known dealers (12%). Smaller proportions reported having purchased LSD from unknown dealers (9%), acquaintances (6%) or workmates (3%). LSD was most commonly purchased at a friend's house (49%) or at the participant's own home (15%). Smaller proportions reported having purchased LSD at a private party (9%), rave/doff/danceparty (9%), agreed public location (9%), acquaintance's home (3%), dealer's home (3%) and festival (3%).

Key expert comments

A few KE were able to comment on LSD. Most KE who commented reported that over the past 6 to 12 months, the purity of LSD had remained relatively stable. A law KE mentioned that there had been substantial increases in LSD-related arrests (including supply and possession) over the past 12 months. Among the few that commented, the availability of LSD was generally thought to fluctuate.

5.7 Cannabis

Summary:

Hydro
- *Price*: $20 per gram; $300 per ounce.
- *Potency*: Currently high and appears to be stable.
- *Availability*: Currently very easy to obtain and stable.

Bush
- *Price*: $20 per gram; $235 per ounce.
- *Potency*: Currently medium and appears to be stable.
- *Availability*: Reports variable.

5.7.1 Price

Table 21 presents the reported price for one ounce and one gram of hydro and bush cannabis[19]. These data should be interpreted with caution since in 2008 participants were asked to report the 'median' price paid for these quantities, whereas in 2009 participants were asked to report what they paid the last time they purchased this amount. Nonetheless, the prices have remained relatively stable from 2009 to 2010 at $20 a gram for hydro and bush, and rising to $235 an ounce for bush and $300 an ounce for hydro.

Table 21: Median price per ounce and gram of bush and hydroponic cannabis, NSW 2008-2010

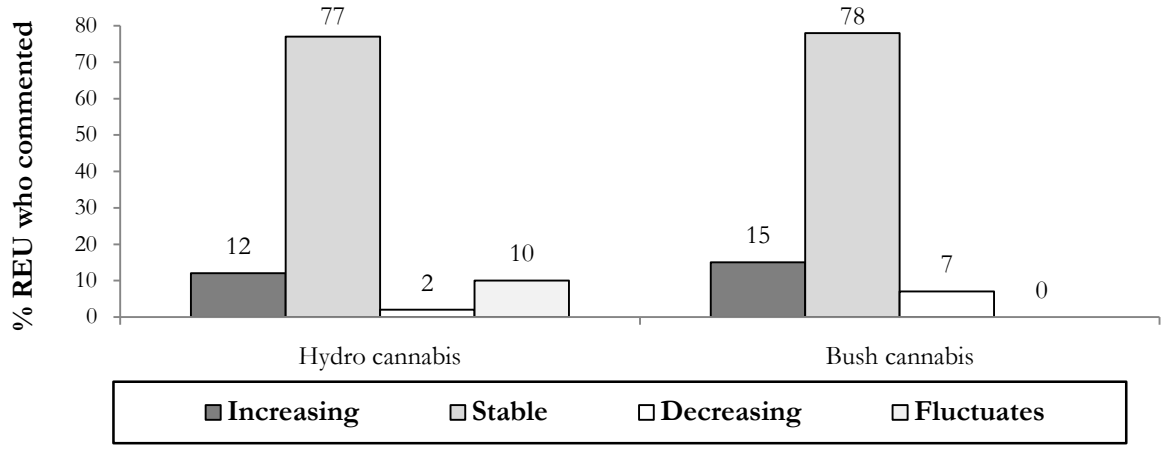
Median price cannabis ($)	2008	2009	**2010**
Price ($) hydro (range)			
Per ounce	300 (90-350)[1]	295 (100-350)	300 (150-450)
Per gram	20 (20-110) [1]	20 (10-25)	20 (20)
Price ($) bush (range)			
Per ounce	-	200 (150-300)[1]	235 (150-300)[1]
Per gram	20 (20-110) [1]	20 (7.5-20)	20 (5-25)

Source: EDRS interviews 2008-2010
[1] Small numbers reporting (n<10)

Participants were asked about changes to the price of hydro and bush over the preceding six months. The majority reported that it had been stable both for hydro (77%) and bush (78%). During interviews, a much higher proportion of users were unsure about changes to the price of bush (as opposed to hydro), because they had often only purchased bush once during the preceding six months (Figure 54).

[19] Data regarding the price of hash or hash oil in 2010 is not presented here due to small numbers reporting.

Figure 54: Price change of bush and hydroponic cannabis*, NSW 2010

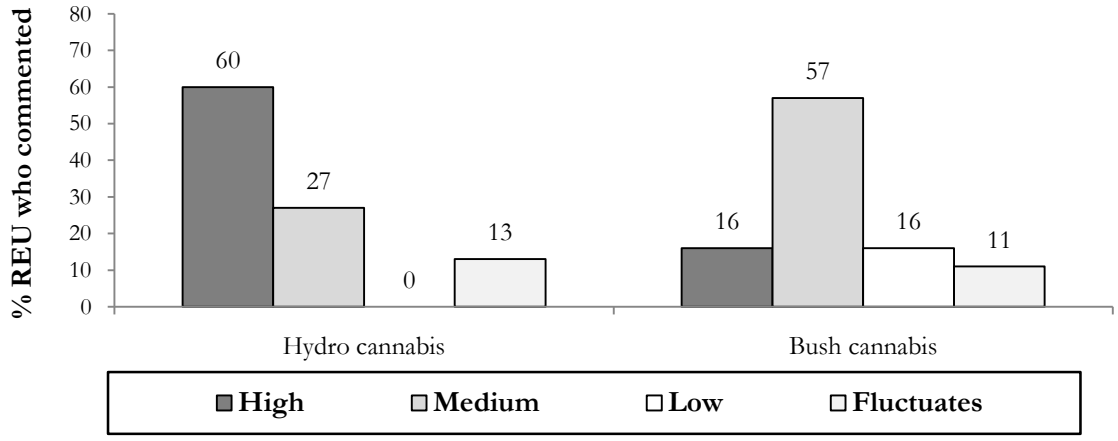


Source: EDRS regular ecstasy user interviews 2010
*** Of those who commented (n=27 for bush, n=51 for hydro)**

5.7.2 Potency

Figure 55 presents participants' perceptions of the current potency of hydro and bush cannabis. The majority of those who commented reported that hydro was currently of 'high' potency and that bush was currently of 'medium' potency. This is consistent with the data from 2009.

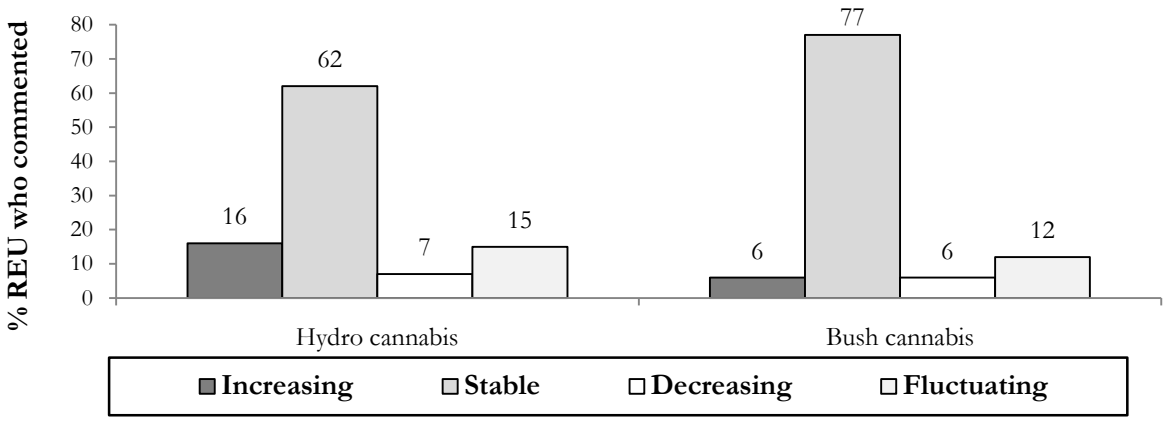
Figure 55: Current potency of bush and hydroponic cannabis*, NSW 2010



Source: EDRS regular ecstasy user interviews 2010
*** Of those who commented (n=38 for bush, n=55 for hydro)**

Participants were asked to comment on changes in the potency of cannabis over the preceding six months. Respondents agreed that the potency of hydro and of bush had remained relatively stable over this time (Figure 56).

Figure 56: Change in potency of bush and hydroponic cannabis over the last six months*, NSW 2010

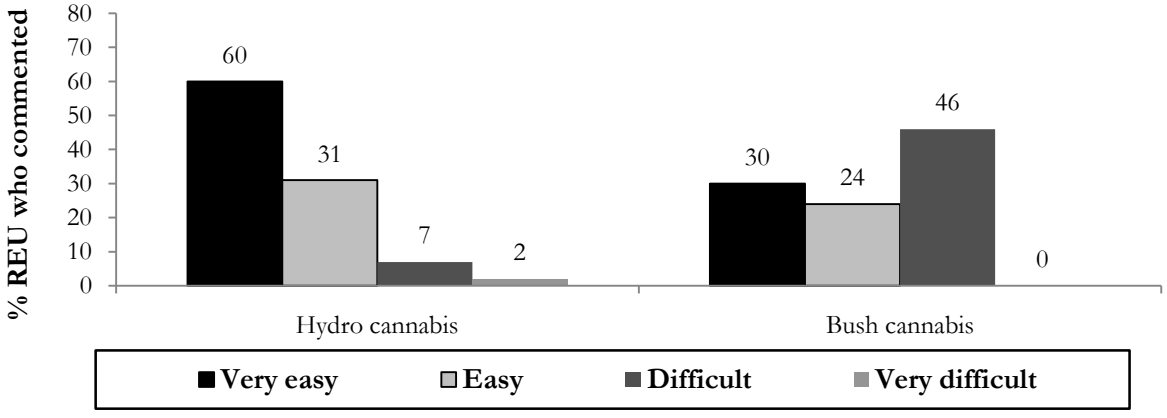


Source: EDRS regular ecstasy user interviews 2010
*** Of those who commented (n=38 for bush, n=55 for hydro)**

5.7.3 Availability

Figure 57 presents data on the REU-reported current availability of bush and hydro. The majority of respondents believed that hydro was currently 'very easy' to obtain. There was less agreement about the current availability of bush with 54% reporting it was currently either 'easy' or 'very easy' to obtain and 46% reporting it was currently 'difficult' to obtain. Anecdotally, participants consistently reported that it was easier to access hydro than bush in the Sydney city area.

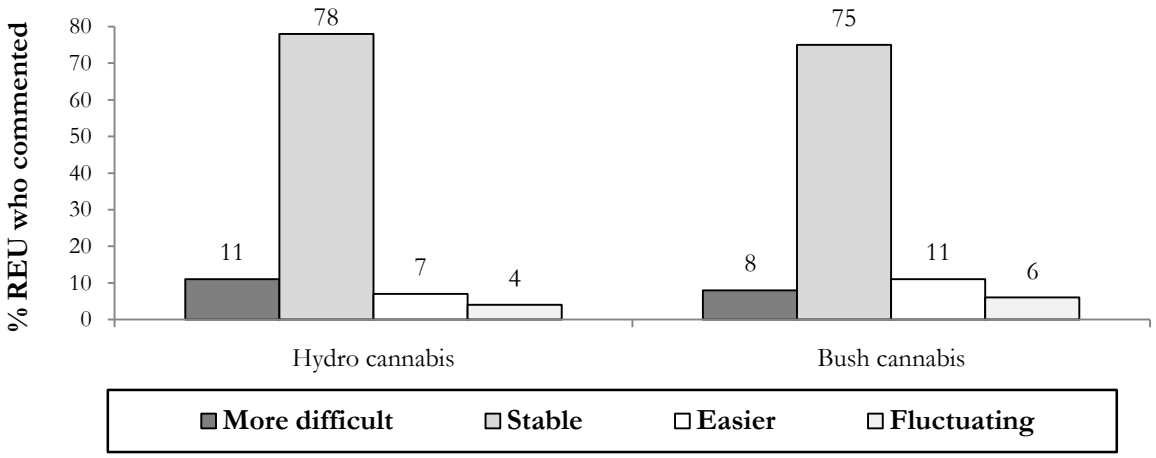
Figure 57: Current availability of bush and hydroponic cannabis*, NSW 2010



Source: EDRS regular ecstasy user interviews 2010
*** Of those who commented (n=37 for bush, n=55 for hydro)**

The majority of those who commented reported that both hydro and bush had remained equally available over the preceding six months (Figure 58).

Figure 58: Change in availability of bush and hydroponic cannabis over the last six months*, NSW 2010

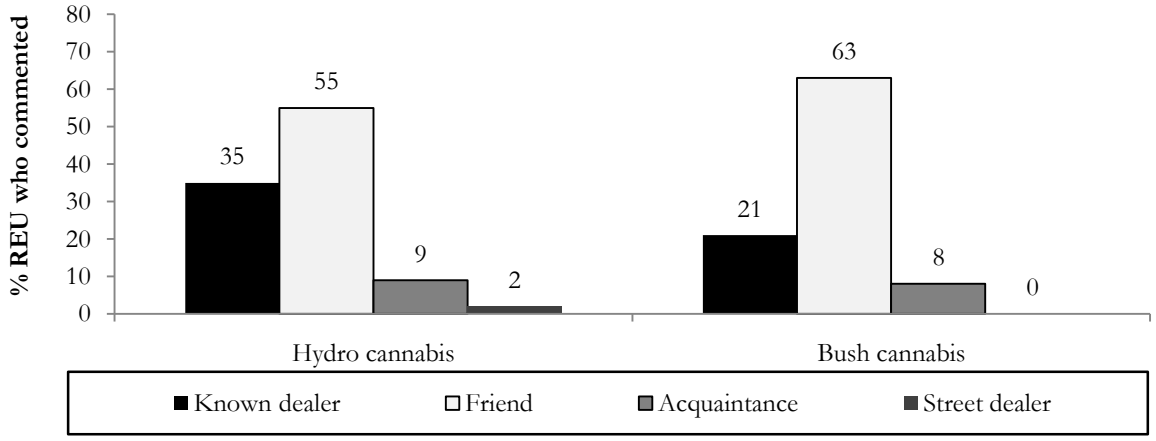


Source: EDRS regular ecstasy user interviews 2010
*** Of those who commented (n=36 for bush, n=55 for hydro)**

Source person and source location

REU were asked to comment on purchasing cannabis over the six months prior to the interview. Both hydro and bush were most commonly purchased from friends; however, sizeable minorities purchased hydro (35%) and bush (21%) from a known dealer (Figure 59).

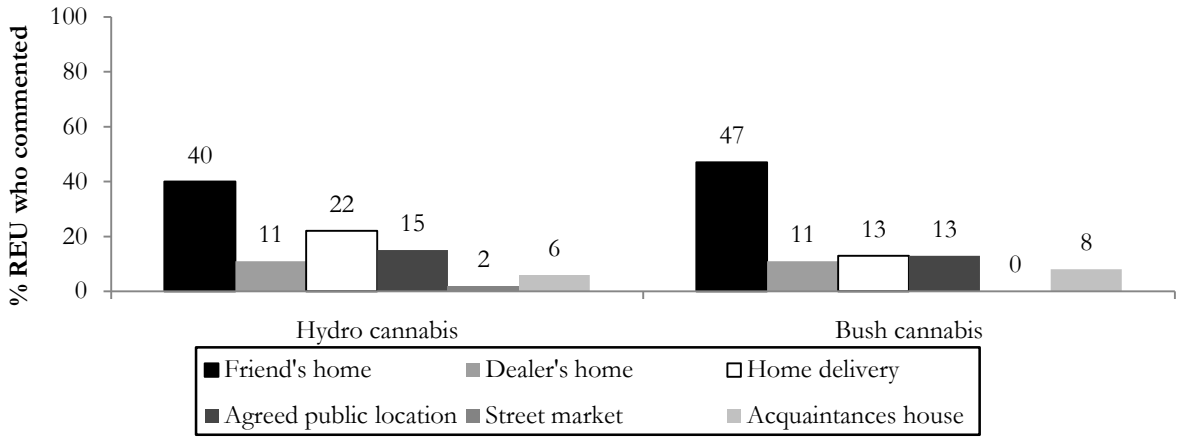
Figure 59: Source person last time purchased bush or hydroponic cannabis *, NSW 2010



Source: EDRS regular ecstasy user interviews 2010
*** Of those who commented (n=38 for bush, n=55 for hydro)**

Both forms of cannabis were most commonly purchased at a friend's home, however, respondents also often had it delivered to their home or bought it at an agreed public location (Figure 60).

Figure 60: Source location last time purchased bush or hydroponic cannabis*, NSW 2010



Source: EDRS regular ecstasy user interviews 2010
*** Of those who commented (n=38 for bush, n=55 for hydro)**

Key expert comments

Only a few KE commented on the price, purity and availability of cannabis. It was generally thought to be very readily available and mostly hydroponic cannabis was being purchased in Sydney. The cannabis market was generally thought to have remained relatively stable.

6 HEALTH-RELATED TRENDS ASSOCIATED WITH ERD USE

Summary:

- One-third of participants reported having overdosed on a stimulant drug throughout their lifetime.
- One fifth of REU reported having ever overdosed on a depressant drug.
- Deaths associated with ecstasy, amphetamines, ketamine and GHB have remained low and stable over the past year, while those in which cocaine was detected have fluctuated.
- Almost one-third of REU (29%) reported that they had recently accessed a medical or health service in relation to their drug use.
- Calls to ADIS and FDS regarding ecstasy and amphetamines appear to have declined from early-2007 onward. Calls regarding cocaine have remained relatively stable from 2009 to 2010.
- One-quarter (26%) reported that their use of drugs had recently caused repeated problems with family, friends or people at work or school.
- One-third (34%) reported recurrently finding themselves in situations where they were under the influence of a drug and could have caused injury either to themselves or others.
- Two-fifths (40%) reported their drug use had recurrently interfered with their responsibilities at home, work or school.
- Less than 10% reported ongoing legal problems associated with their use of drugs.
- One-fifth of the group had recently experienced a mental health problem. Mood and anxiety disorders were those most commonly reported.
- Participants completed the K10. One-third of the group fell into the 'high' or 'very high' distress' categories.

6.1 Overdose and drug-related fatalities

Participants were asked if they had ever overdosed on a stimulant drug or a depressant drug. In both instances, 'overdose' was defined as presenting with symptoms consistent with either stimulant toxicity (e.g. nausea and vomiting, chest pains, tremors, increased body temperature or heart rate, seizure, extreme paranoia, anxiety or panic, hallucinations) or symptoms consistent with a depressant overdose (e.g. reduced level of consciousness, respiratory depression, turning blue, collapsing). As such, the following sections are based on participants' understanding of these definitions and their opinions as to whether they had overdosed.

6.1.1 Stimulant overdose

Approximately one-third (34%) of participants reported having overdosed on a stimulant drug throughout their lifetime. Participants reported having experienced a median of 2 overdoses (range 1-150), and that their last overdose had occurred a median of 13 months ago (range 2-120). Just under one-fifth (17%) of participants reported having overdosed on a stimulant drug

within the preceding 12 months. Among these, the most common location of last overdose was at a rave/doof/danceparty or at a friend's home and, in general, there appeared to be an even proportion who had recently overdosed in public versus private settings.

Those who had recently overdosed (i.e. within the last year) were asked to identify the main drug to which they attributed their last overdose and also to identify other drugs they had used. Ecstasy was the drug most commonly reported to have caused the overdose (47%) followed by crystal (18%), cocaine (12%), LSD (12%) and MDA (6%). In most cases, participants had used at least one other drug before they had overdosed, often a depressant drug such as cannabis (n=4), alcohol (n=3) or GHB (n=3).

Amongst those who overdosed within the preceding year, the most common symptoms reported included increased heart rate (94%), increased body temperature (71%), extreme anxiety (65%), panic (65%), tremors (65%), paranoia (59%), delirium (59%), muscle twitches (53%) and visual hallucinations (53%). Other symptoms reported included nausea (47%), rapid breathing (47%), agitation (47%), shallow breathing (41%), extreme agitation (41%), headache (29%), dizziness (29%), auditory hallucinations (29%),'passing out' (24%), vomiting (24%), chest pain (24%), and tactile hallucinations (18%).

Participants were asked how long they had been partying prior to overdosing on the last occasion. The median number of hours participants had been partying was 8 (range 1-120). Of the seventeen participants who had recently experienced a stimulant overdose, seven received no treatment/attention at all on the last occasion. Others reported that they saw their GP (n=2), sought information from a telephone service (n=2), were taken to a hospital emergency department (n=1), were monitored by friends (n=1), contacted venue personnel (n=1), saw a counsellor (n=1), saw a psychologist (n=1), attended a drug health service (n=1), and contacted narcotics anonymous (n=1).

6.1.2 Depressant overdose

One fifth (19%) of the current sample of REU reported having ever overdosed on a depressant drug. Those who had overdosed reported having done so on a median of 2 occasions (range 1-520) with the most recent having occurred a median of 24 months prior to the interview (range 1-204). Four participants reported having overdosed on a depressant drug within the year preceding the interview. Alcohol and GHB were the only two drugs that participants identified as the main drug to which they attributed their most recent depressant overdose.

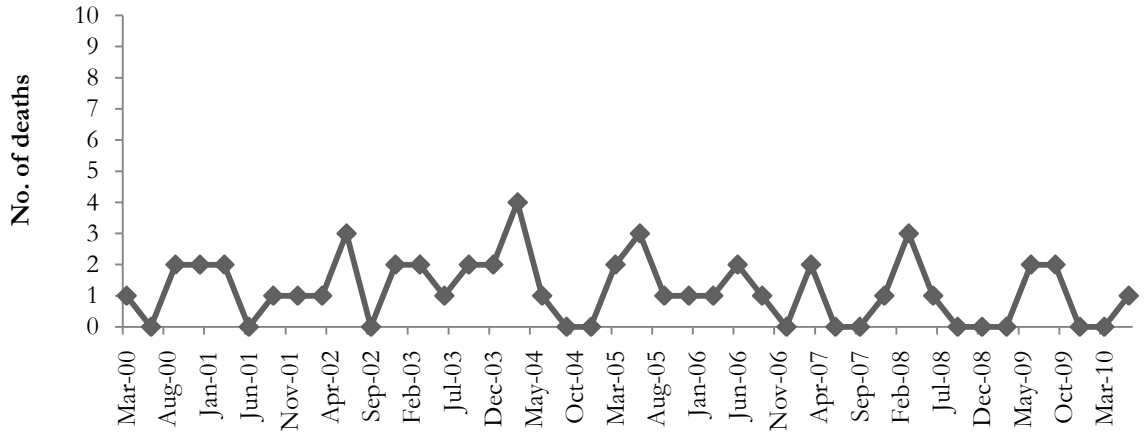
The most commonly reported symptoms of a depressant overdose among this group were losing consciousness, vomiting and collapsing. All of the participants who had recently experienced a depressant overdose reported that they did not receive any formal treatment or care on the last occasion, aside from one person who was monitored by friends.

6.1.3 Ecstasy

The number of suspected drug-related deaths where ecstasy was detected was low and appeared to have remained relatively stable over time, generally fluctuating between one or two each

quarter (Figure 61). The detection of MDMA, however, does not imply that MDMA was causally related to the death, as there may have been other drugs present post-mortem.

Figure 61: Number of deaths of individuals suspected of drug use, in which MDMA was detected post-mortem, 2000-2010

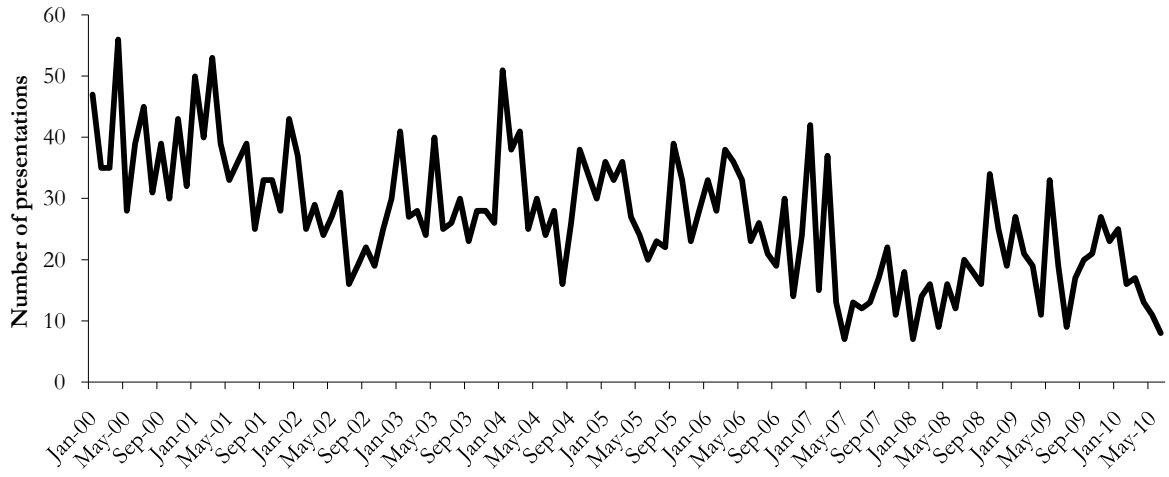


Source: Forensic Toxicology Laboratory database, Division of Analytical Laboratories
NB: These numbers relate to deaths in which ecstasy was detected; however, there may have also been other drugs present.

6.1.4 Methamphetamine

While the total number of amphetamine overdose presentations to NSW emergency departments has fluctuated over time, there appears to be a generally declining trend over the past 10 years (Figure 62). There appears to have been a general decline from figures recorded in May 2009 to May 2010.

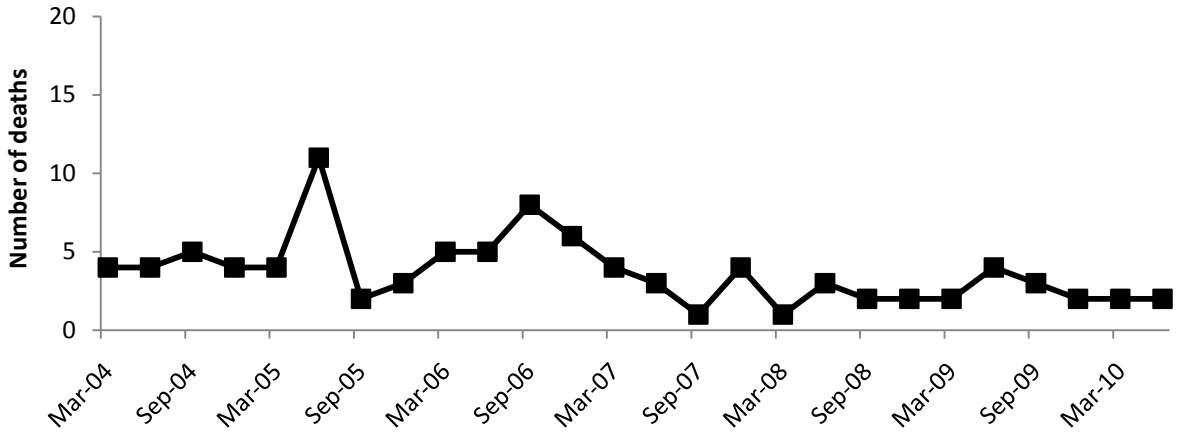
Figure 62: Amphetamine overdose presentations to NSW emergency departments, 2000-2010.



Source: Emergency Department Information System, NSW Department of Health.
NB: Figures refer to overdose only and do not include presentations for use disorders

The number of deaths of individuals suspected of drug use where amphetamines were detected post-mortem in NSW appears to have remained relatively stable from 2008/09 to 2009/10 (Figure 63). From July 2009 to June 2010, nine amphetamine-related deaths were recorded in total. These figures do not include methylenedioxymethamphetamine, methylenedioxyamphetamine, or p-methoxyamphetamine. Also excluded are pseudoephedrine and ephedrine as only deaths related to illicit amphetamines are presented.

Figure 63: Number of deaths of individuals suspected of drug use, in which illicit amphetamines were detected post-mortem, 2004-2010

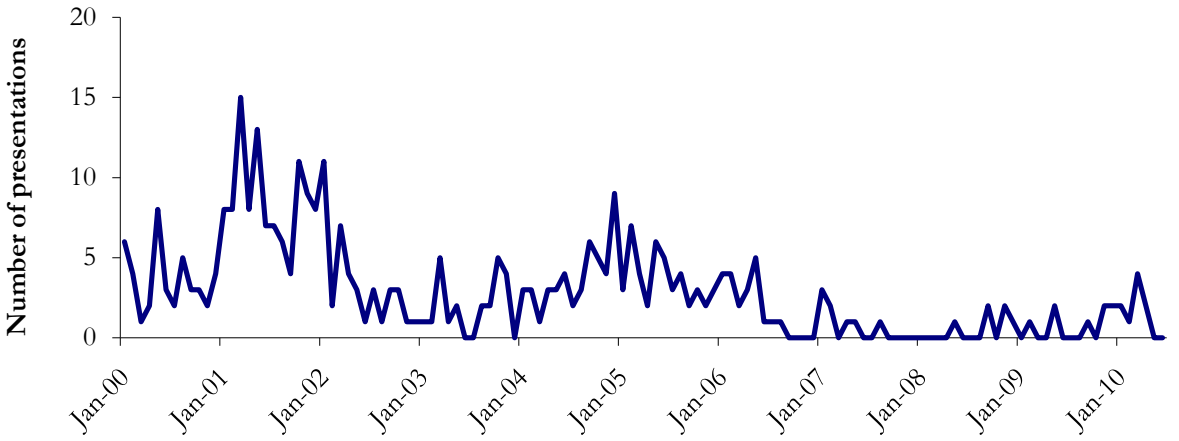


Source: Forensic Toxicology Laboratory database, Division of Analytical Laboratories
NB: These numbers relate to deaths in which amphetamines, including methamphetamine, were detected; however, there may have also been other drugs present

6.1.5 Cocaine

Since mid-2008, there has been a slight upward trend in the number of cocaine overdose presentations to NSW emergency departments. However, these figures remain low with fewer than 5 presentations per month and a total of 9 presentations for the first half of 2010 (Figure 64).

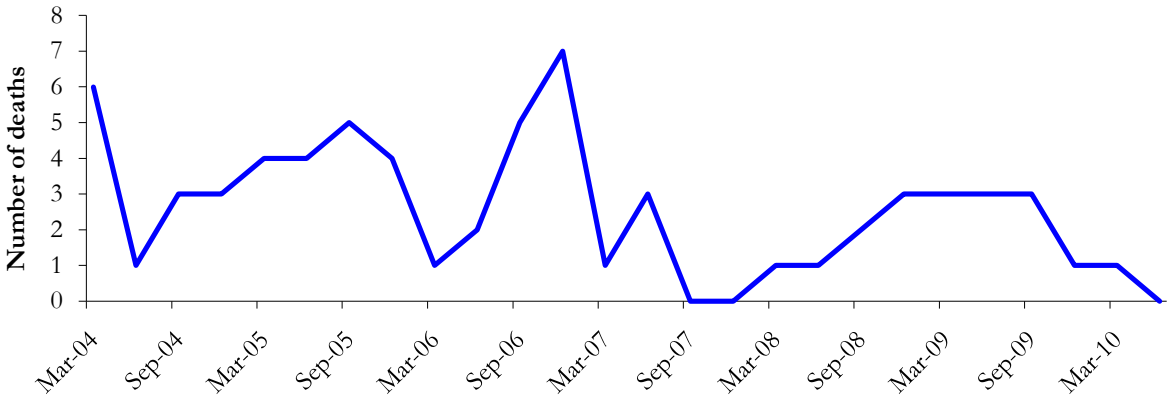
Figure 64: Cocaine overdose presentations to NSW emergency departments, 2000-2010



Source: Emergency Department Information System, NSW Department of Health
NB: Figures refer to overdose only and do not include presentations for use disorders

The number of deaths of suspected drug users where cocaine was detected post-mortem has fluctuated over time; although it appears to have declined from late-2009 to mid-2010 (Figure 65). A total of 5 cocaine related deaths were recorded between July 2009 and June 2010.

Figure 65: Number of deaths of individuals suspected of drug use, in which cocaine was detected post-mortem, 2004-2010



Source: Forensic Toxicology Laboratory database, Division of Analytical Laboratories
NB: These numbers relate to deaths in which cocaine was detected; however, there may have also been other drugs present

6.1.6 Ketamine

Deaths of suspected drug users where ketamine was detected post-mortem remained very low. Data from the Forensic Toxicology Laboratory Database at the Division of Analytical Laboratories showed that only 10 of these deaths had occurred between January 1999 and June 2010. There were no deaths during 2009-2010 where ketamine was detected.

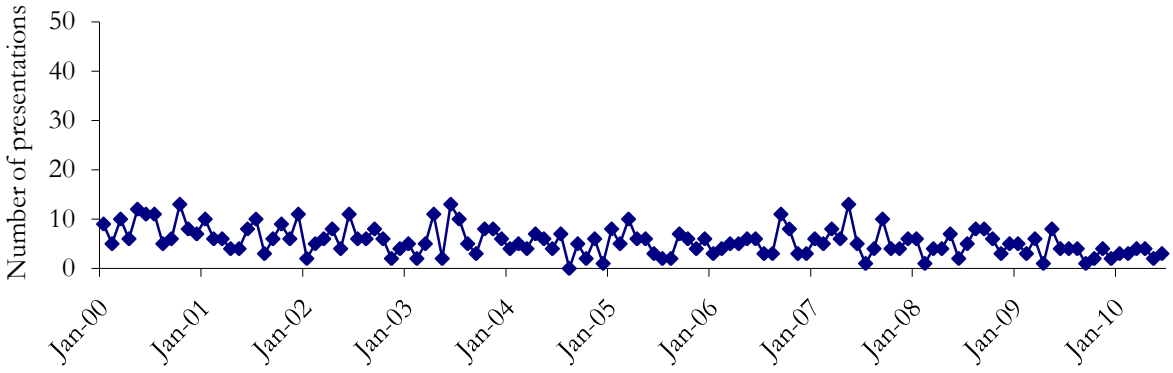
6.1.7 GHB

Data from the Forensic Toxicology Laboratory Database at the Division of Analytical Laboratories showed that, since 2000, only four deaths had occurred where GHB was detected post-mortem. There were no deaths during 2009-2010 where GHB was detected.

6.1.8 Cannabis

The number of cannabis toxicity presentations to emergency departments have remained relatively low and stable, at less than 20 per month since 2000 (Figure 66).

Figure 66: Cannabis toxicity presentations to NSW emergency departments, 2000-2010

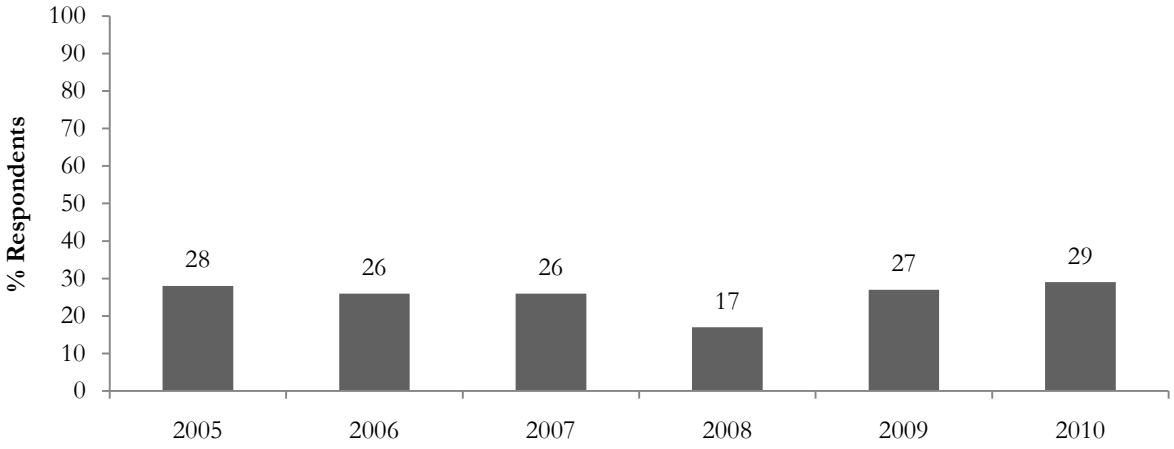


Source: Emergency Department Information System, NSW Department of Health
NB: Figures refer to overdose only and do not include presentations for use disorders

6.2 Help-seeking behaviour

Participants were asked if they had accessed any medical or health services in relation to their drug use in the last six months. Almost one-third of REU (29%) interviewed in 2010 reported that they had done so. This figure remained relatively stable over time (Figure 67).

Figure 67: Proportion of REU who recently accessed a medical/health service in relation to drug use, NSW 2005-2010



Source: EDRS regular ecstasy user interviews, 2005-2010

Table 22 presents the type of health service accessed and the main drugs and reasons for which they were accessed. Help was sought from varied services with general practitioners (GP) being those most accessed (59%) followed by drug and alcohol workers (28%), psychologists (28%) and counsellors (24%). The drugs most commonly noted as the problem drug were alcohol, ecstasy, cannabis and crystal. The issues most frequently addressed were information and advice about drug effects, cutting down drug use, depression and dependence (Table 22).

Table 22: Proportion of REU who accessed health help by main drug type and main reason, NSW 2010

Service (n=29)	Ecstasy (%)	Alcohol (%)	Cannabis (%)	Crystal (%)	Polydrug (%)	Other (%)	Main issue
GP (n=17)	18	24	6	18	18	Cocaine (6) Heroin (6)	Depression (24%) Info/advice on drug effects (18%) Cutting down use (12%) Dependence/addiction (12%) Anxiety (6%) Medication prescription (6%)
Drug and Alcohol Worker (n=8)	38	13	13	13	-	Heroin (13) Methadone (13)	Dependence /addiction (38%) Cutting down use (25%) Depression (16%) Info/advice on drug effects (13%)
Psychologist (n=8)	13	-	25	13	25	LSD (13) Methadone (13)	Info/advice on drug effects (25%) Cutting down use (25%) Depression (13%) Dependence/addiction (13%) Other psychological problems (13%)
Counsellor (n=7)	29	-	14	14	29	Methadone (14)	Dependence (29%) Depression (29%) Cutting down use (29%) Info/advice on drug effects (14%)
Internet Counselling (n=4)	50	25	25	-	-	-	Info/advice on drug effects (75%) Overdose (25%)

Table 22: Proportion of REU who accessed health help by main drug type and main reason, NSW 2010

Service (n=29)	Ecstasy (%)	Alcohol (%)	Cannabis (%)	Crystal (%)	Polydrug (%)	Other (%)	Main issue
Emergency Department (n=4)	25	25	-		-	GHB (25) Crystal (25)	Acute physical problems (50%) Overdose (25%) Psychosis (25%)
Ambulance (n=2)	50	50	-	-	-	-	Acute physical problems
Psychiatrist (n=2)	-	-	-	50	-	Methadone (50)	Depression (50%) Cutting down use (50%)
First aid (n=1)	100	-	-	-	-	-	Acute physical problems
Hospital (n=1)	-	100	-		-	-	Acute physical problems
Social/Welfare worker (n=1)	-	100	-		-	-	Cutting down drug use
Telephone Counselling (n=1)	100	-	-		-	-	Overdose

Source: EDRS regular ecstasy user interviews 2010

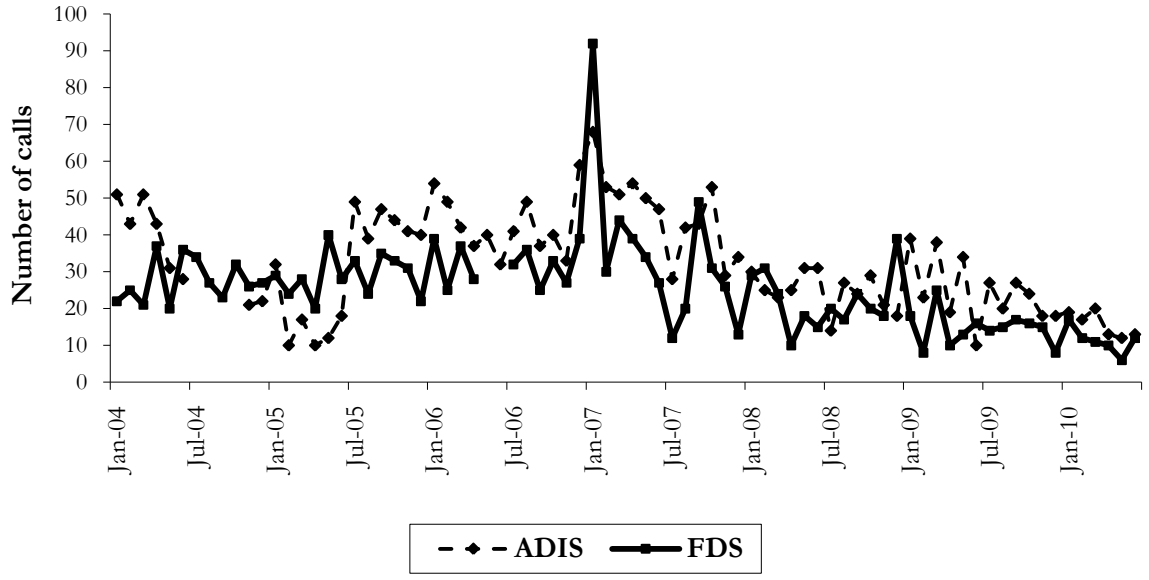
6.3 Drug treatment

6.3.1 Ecstasy

The NSW Alcohol and Drug Information Service (ADIS) provides a telephone information and referral service in NSW. ADIS data reflect calls in which ecstasy was the primary drug of concern. Similarly, the NSW Family Drug Support (FDS) provides over-the-phone support and referral. FDS data represent all calls in which ecstasy was mentioned.

Figure 68 shows the number of calls received by ADIS and FDS from January 2004. There appears to be a downward trend in calls relating to ecstasy to both services from early 2007 onward.

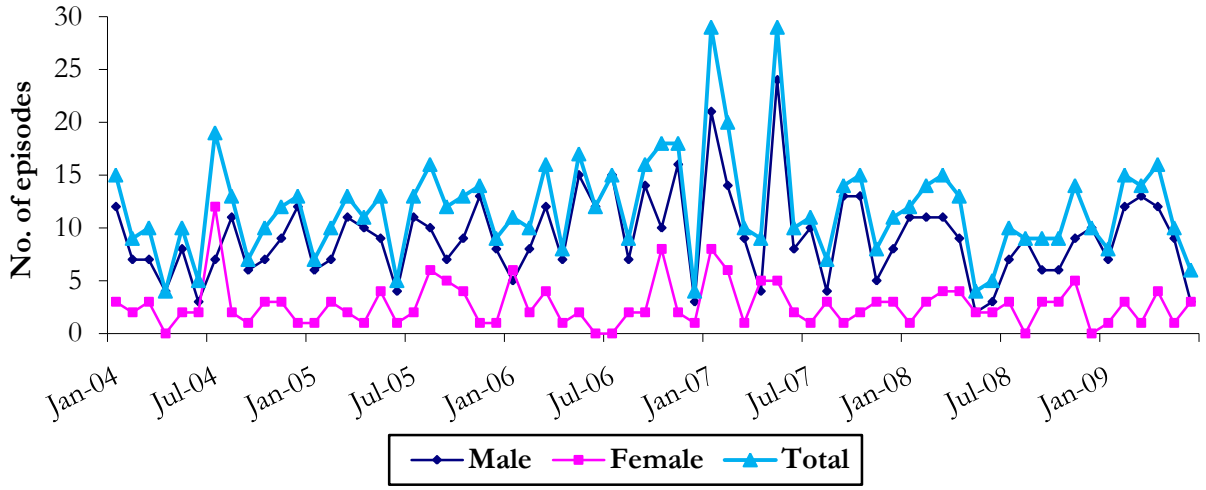
Figure 68: Number of inquiries regarding ecstasy received by ADIS and FDS, January 2004-June 2010



Source: NSW Alcohol and Drug Information Service, NSW Family Drug Support
NB: Family Drug Support data for May and June 2006 were not available. Data from ADIS for July-October 2004 were unavailable due to database changes

The number of closed treatment episodes, based on the date of commencement, where the principal drug of concern was ecstasy, fluctuated over the preceding seven years (Figure 69). After spiking in both January and May 2007, the number of ecstasy treatment episodes returned to figures consistent with those prior to this period. Men accounted for most of the treatment episodes.

Figure 69: Number of ecstasy treatment episodes by gender, NSW Jan04 to Jul-09



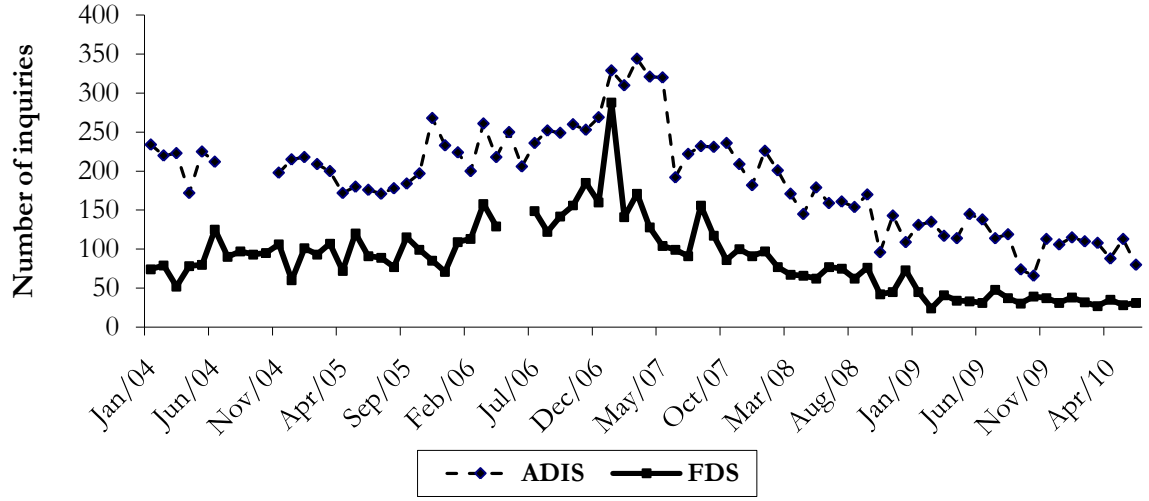
Source: NSW MDS AODTS, NSW Department of Health

NB: The NSW MDS AODTS is based on closed treatment episodes and so some episodes may be excluded if they did not finish in the given period. Figures are presented by the commencement date for treatment. Data were not available for 2009/2010 at the time of printing

6.3.2 Methamphetamine

Figure 70 shows the number of calls to the ADIS and FDS lines regarding meth/amphetamines. The number of enquiries to FDS regarding meth/amphetamines appears to have stabilised from January 2009 at approximately 35 calls per month after having declined from early 2007 onward. This figure is substantially lower than those that were recorded over the preceding three to four years. Calls to ADIS helplines have also been declining over this time and appear to have continued to decline from 2008/09 to 2009/10.

Figure 70: Number of inquiries to ADIS and FDS regarding amphetamines, including 'crystal'/'ice', January 2004-June 2010

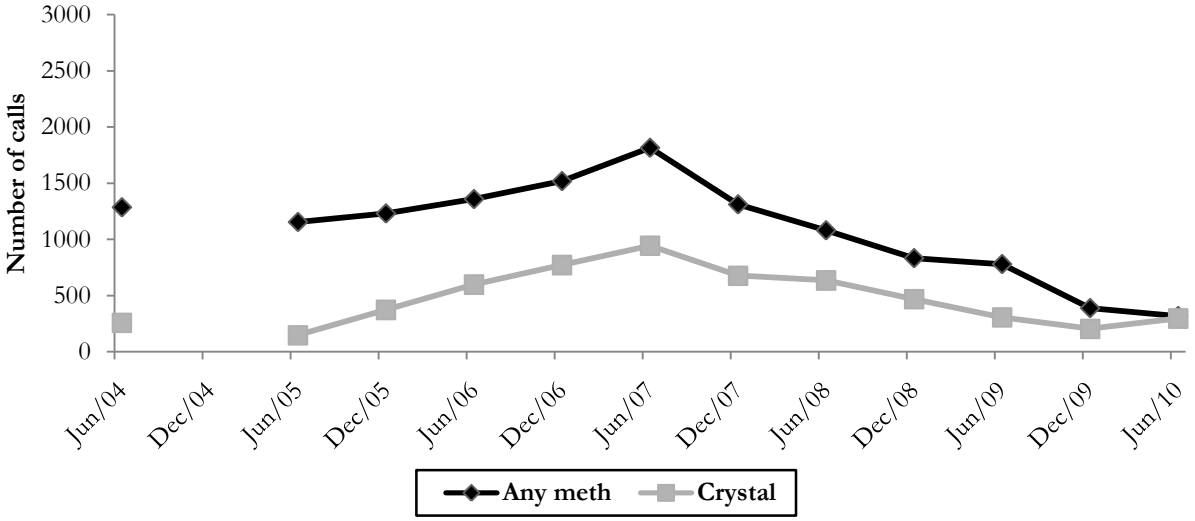


Source: NSW Alcohol and Drug Information Service and Family Drug Support

NB: Family Drug Support data refer to calls where any mention of amphetamines was made. ADIS data refer to the number of calls where amphetamines were mentioned as any drug of concern. ADIS data were unavailable for the period July-October 2004 and FDS data were unavailable for the period May-June 2006

Figure 71 presents calls to ADIS coded as being related to any meth/amphetamine and also those where ice/crystal specifically had been mentioned. From the second half of 2007 onward, calls regarding methamphetamines generally (and crystal specifically) have been in decline. Furthermore, over time, calls relating crystal have come to account for a greater proportion of all methamphetamine related calls. In the first half of 2010, calls relating to crystal accounted for approximately 94% of all methamphetamine related calls.

Figure 71: Number of enquiries to ADIS regarding amphetamines, including ice/crystal, June 2004-June 2010

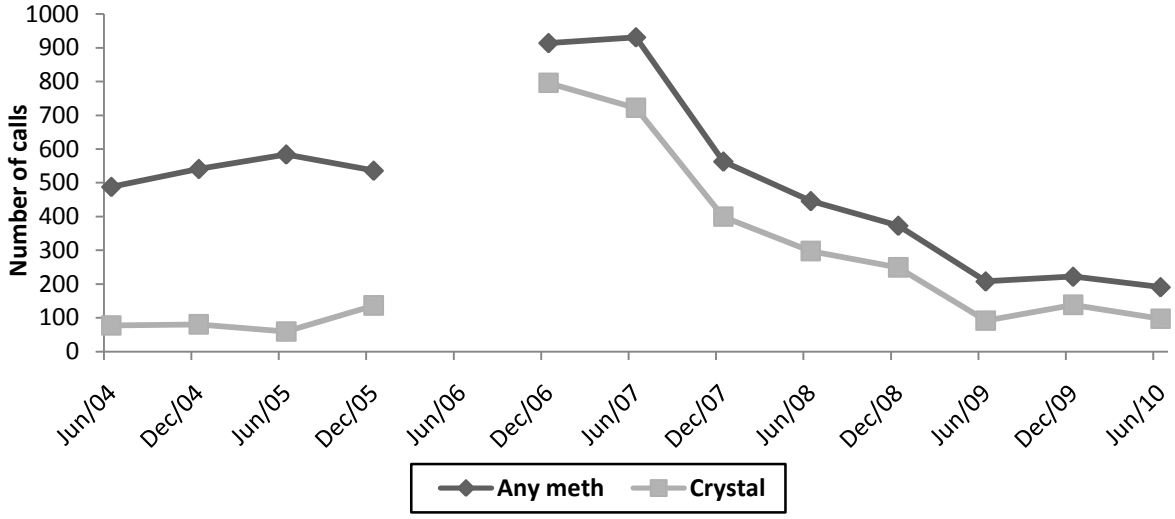


Source: NSW Alcohol and Drug Information Service

NB: Data is presented on calls coded as relating to meth/amphetamines and calls relating to crystal. Calls may not fall exclusively into either category and it is possible that there is some overlap. Data were unavailable for the period July-October 2004

Figure 72 presents data from January 2004 to June 2010 comparing the number of calls coded as specifically mentioning crystal and those where meth/amphetamines generally were measured. The number of calls appears to have stabilised from 2009 through to 2010. Calls regarding crystal continue to represent a substantial proportion of calls regarding any meth/amphetamine, accounting for approximately half of all calls.

Figure 72: Number of enquiries to FDS regarding amphetamines, including ice/crystal, June 2004-June 2010

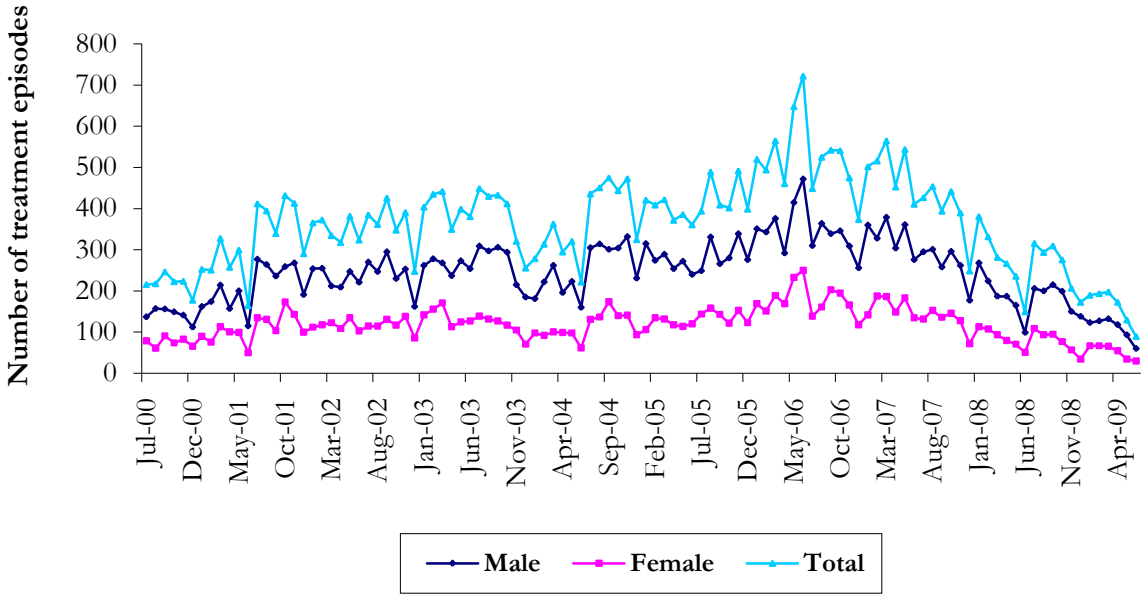


Source: Family Drug Support

NB: Data is presented on calls coded as relating to meth/amphetamines and calls relating to crystal. Calls may not fall exclusively into either category and it is possible that there is some overlap. Data were unavailable for the period May-June 2006

The number of closed treatment episodes based on date of commencement where amphetamine was the principal drug of concern has continued to decline from 2008 to 2009 (Figure 73). Men continue to account for a greater proportion of this total compared to women.

Figure 73: Number of ATS treatment episodes by gender, NSW July 2000-June 2009



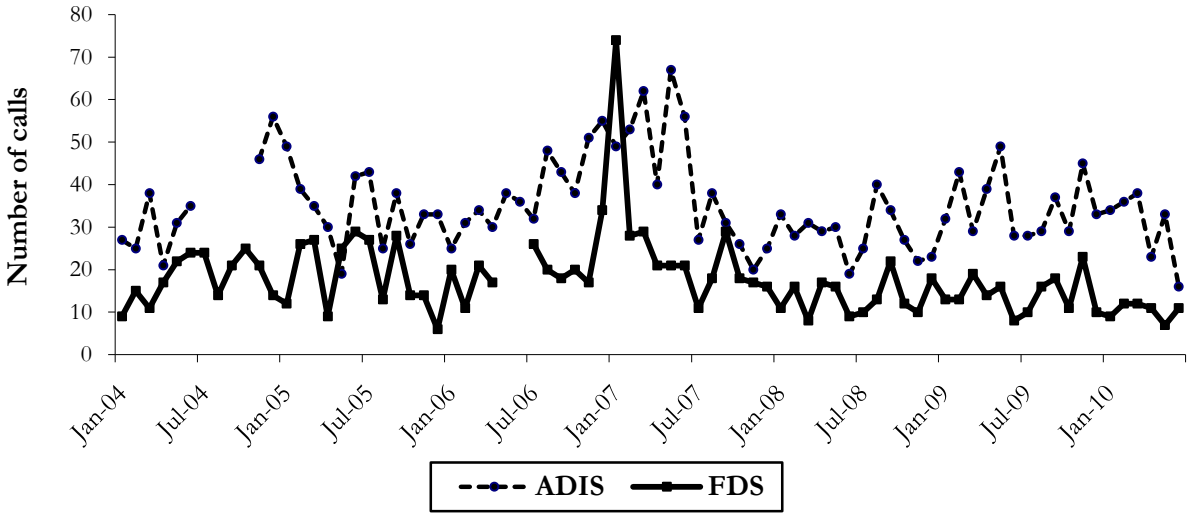
Source: NSW MDS AODTS, NSW Department of Health

NB: The NSW MDS AODTS is based on closed treatment episodes and so some episodes may be excluded if they did not finish in the given period. Figures are presented by the commencement date for treatment. Data were not available for 2009/2010 at the time of printing

6.3.3 Cocaine

Figure 74 shows the number of calls to the ADIS and FDS lines regarding cocaine. Calls to both ADIS and FDS appear to have remained relatively stable from late 2008 to early 2010.

Figure 74: Number of inquiries to ADIS and FDS regarding cocaine, January 2004-June 2010.



Source: NSW Alcohol and Drug Information Service and Family Drug Support

NB: FDS data refer to calls where any mention of cocaine was made. FDS is based in NSW but data may include some calls from interstate. ADIS data include calls made in NSW and the Australian Capital Territory (ACT) and refer to the number of calls where cocaine was mentioned as any drug of concern. ADIS data were unavailable for the period July to October 2004 and FDS data were unavailable for the period May to June 2006.

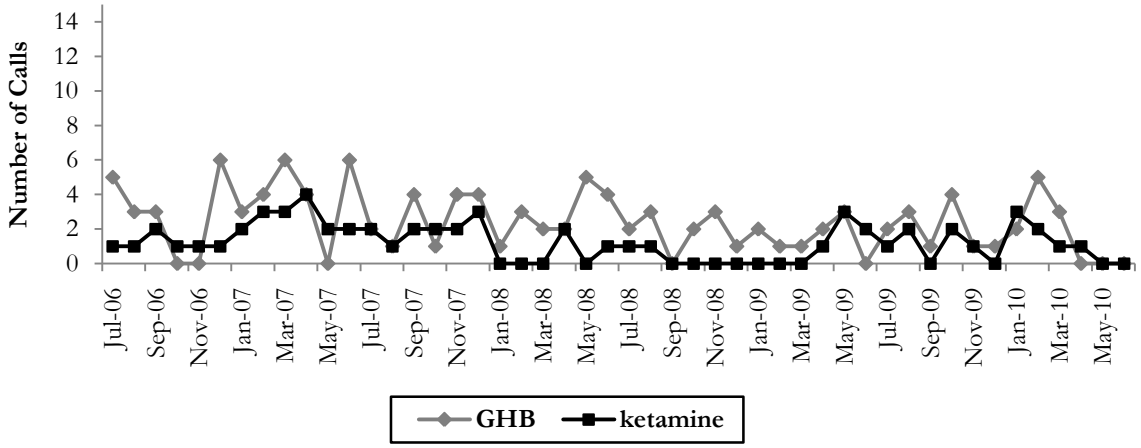
6.3.4 Ketamine

Treatment-seeking for problems with ketamine use is low compared to other drugs. Data from the NSW Minimum Dataset show during the period 2002-2009 there were ten closed treatment episodes based on the date of commencement where the principal drug of concern was ketamine (NSW MDS AODTS, NSW Department of Health). The NSW MDS is based on closed treatment episodes and so some episodes may be excluded if they did not finish in the given period.

Calls to telephone helplines

From January 2008 to March 2009 the number of calls to ADIS where ketamine was mentioned as a drug of concern was very low. However, from early 2009 onward, this figure has been fluctuating (Figure 75).

Figure 75: Number of inquiries to ADIS regarding ketamine and GHB, July 2006-June 2010



Source: NSW Alcohol and Drug Information Service
NB: ADIS data include calls made in NSW and the Australian Capital Territory (ACT) and refer to the number of calls where ketamine or GHB was mentioned as any drug of concern

6.3.5 GHB

Data from the NSW Minimum Dataset show that during the period 2002-2009 there have been 22 treatment episodes where GHB was the principal drug of concern (NSW MDS DATS, NSW Department of Health). Five of these were recorded in the 2008/09 period. The NSW MDS is based on closed treatment episodes and so some episodes may be excluded if they did not finish in the given period.

Calls to telephone helplines

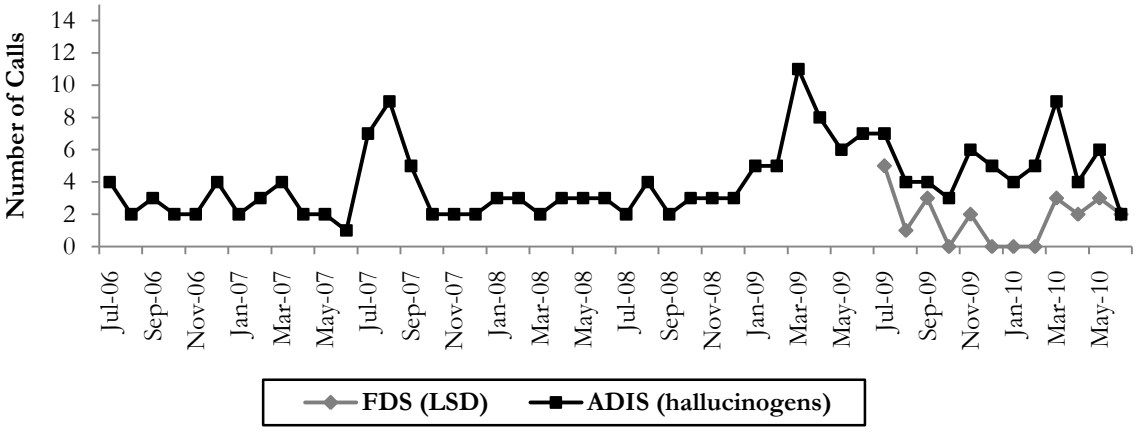
Calls to ADIS where GHB were mentioned have continued to fluctuate from 2009 to 2010; although there appears to be a slightly increasing trend (Figure 75).

6.3.6 LSD

Calls to telephone helplines

Calls to ADIS and FDS where hallucinogens were mentioned as a drug of concern have been fluctuating from early-2009 onward.

Figure 76: Number of inquiries to ADIS and FDS regarding hallucinogens, July 2006-June 2010

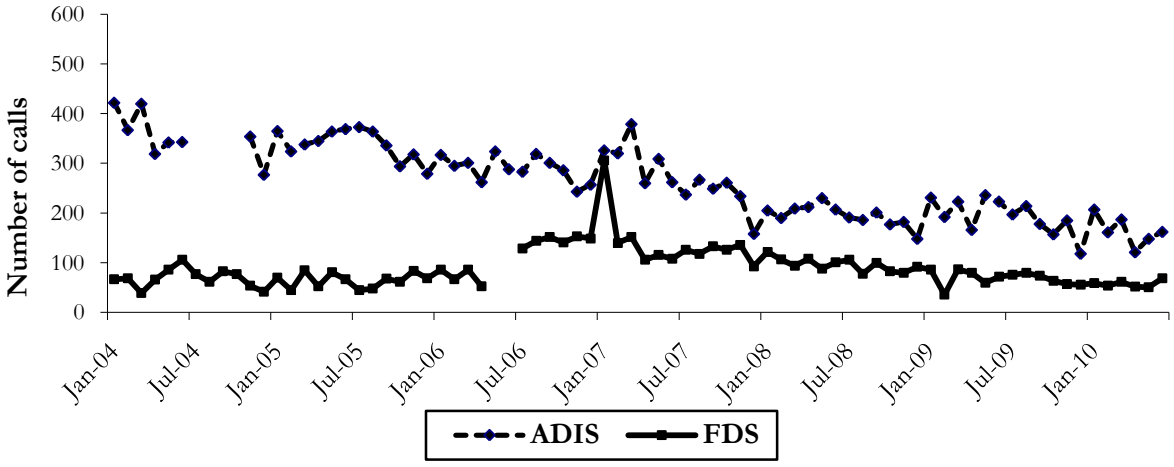


Source: NSW Alcohol and Drug Information Service and Family Drug Support
NB: FDS data refer to calls where any mention of cocaine was made. FDS is based in NSW but data may include some calls from interstate. ADIS data include calls made in NSW and the Australian Capital Territory (ACT) and refer to the number of calls where cocaine was mentioned as any drug of concern

6.3.7 Cannabis

Figure 77 presents data on calls to the ADIS and FDS services where cannabis was mentioned as a drug of concern. The numbers of calls to ADIS had been generally declining since early-2004; although the number of calls had fluctuated since early 2009. Calls to FDS regarding cannabis also appeared to have declined slowly since late-2006.

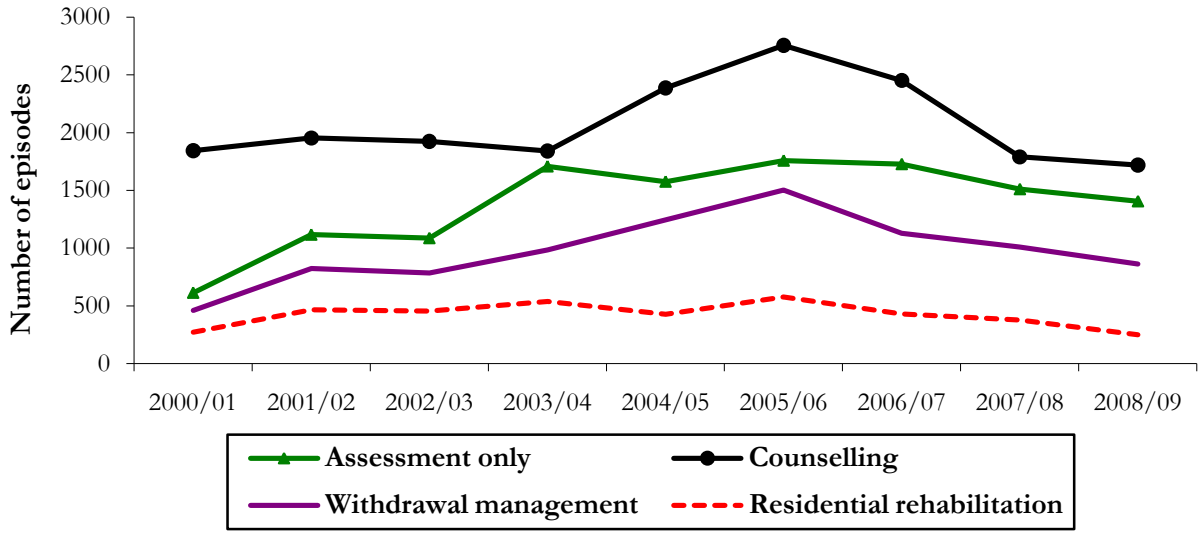
Figure 77: Number of enquiries to ADIS and FDS regarding cannabis, January 2004-June 2010



Source: ADIS and FDS
NB: FDS data refer to calls where any mention of cannabis was made. FDS is based in NSW but data may include some calls from interstate. ADIS data include calls made in NSW and the ACT and refer to the number of calls where cannabis was mentioned as any drug of concern. ADIS data were unavailable for the period July to October 2004 and FDS data were unavailable for the period May-June 2006

Figure 78 shows the number of closed treatment episodes based on the date of commencement where the principal drug of concern was cannabis, by treatment type. Counselling continues to be the most commonly accessed form of treatment. From 2007/08 to 2008/09 the number of treatment episodes appears to have remained stable both overall and within each treatment type.

Figure 78: Number of cannabis treatment episodes by treatment type, NSW 2000/01-2008/09



Source: NSW MDS AODTS, NSW Department of Health
NB: The NSW MDS is based on closed treatment episodes and so some episodes may be excluded if they did not finish in the given period. Figures are presented by the commencement date for treatment. Data were not available for 2009-2010 at the time of printing

6.4 Self-reported problems associated with ecstasy and related drug use

Participants were asked about a range of other problems associated with their drug use. Participants were asked if, in the past six months, their drug use had caused repeated problems with family, friends or people at work or school; if they had any recurrent drug-related legal problems; if they had recurrently found themselves in situations where they were under the influence of any drug and could have gotten themselves or others hurt, or put themselves or others at risk; or if their drug use had recurrently interfered with their responsibilities at home, work or school. Table 23 presents the proportion experiencing these problems and the drug attributed by them as the main cause of these problems. These proportions have remained relatively stable from 2009 to 2010.

- One-quarter (26%) reported that their use of drugs had caused repeated problems with family, friends or people at work or school in the six months prior to the interview. Alcohol was the drug most commonly identified as causing these problems, followed by cannabis and polydrug use.

- One-third (34%) of the sample reported recurrently finding themselves in situations where they were under the influence of a drug and could have caused injury either to themselves or others or put themselves or others at risk. Respondents most commonly identified alcohol as the main drug causing these problems followed by ecstasy and cannabis.

- Two-fifths of the group (40%) in 2010 reported that their drug use had recurrently interfered with their responsibilities at home, at work or at school. Alcohol was the drug most commonly associated with these problems followed by cannabis and ecstasy.

- Fewer than 10% of participants reported experiencing recurring legal problems due to drug use. These were primarily attributed to alcohol and cannabis followed by crystal and ecstasy.

Overall, it was evident that a sizeable proportion of REU experience problems associated with their drug use across multiple domains and that these were most commonly associated with the use of alcohol, cannabis and ecstasy.

Table 23: Self-reported drug-related problems, NSW 2010

Problems in the following areas (last 6 months):	**Any drug (N=100) (%)**	**Alcohol (%)**	**Cannabis (%)**	**Ecstasy (%)**	**Crystal (%)**	**LSD (%)**	**Cocaine (%)**	**Polydrug Use (%)**
Social (%)	26	39	19	4	8	4	4	12
Legal (%)	7	29	29	14	14	-	-	-
Risk (%)	34	56	12	12	3	6	9	-
Responsibility (%)	40	33	28	15	8	-	3	5

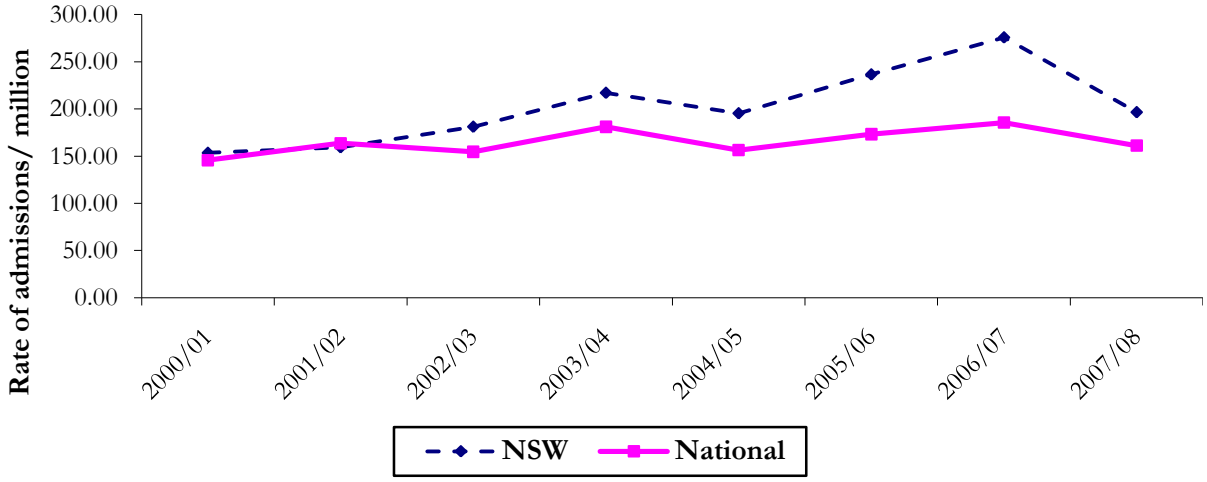
Source: EDRS regular ecstasy user interviews 2010

6.5 Hospital admissions

6.5.1 Methamphetamine

The rate per million of inpatient hospital admissions among persons aged 15-54 years in which amphetamines were the principal diagnosis is shown in Figure 79 below. Diagnoses for the period 2000 to 2004 were recorded using ICD-10-AM codes. A principal diagnosis is defined as having been chiefly responsible for occasioning the patient's episode of care in hospital. While national rates appear to have remained relatively stable, those recorded in NSW appear to have been increasing from 2000/01 to 2006/07 and then to have declined in 2007/08.

Figure 79: Number per million persons of principal amphetamine-related hospital admissions among persons aged 15-54, NSW and nationally, 2000/01-2007/08

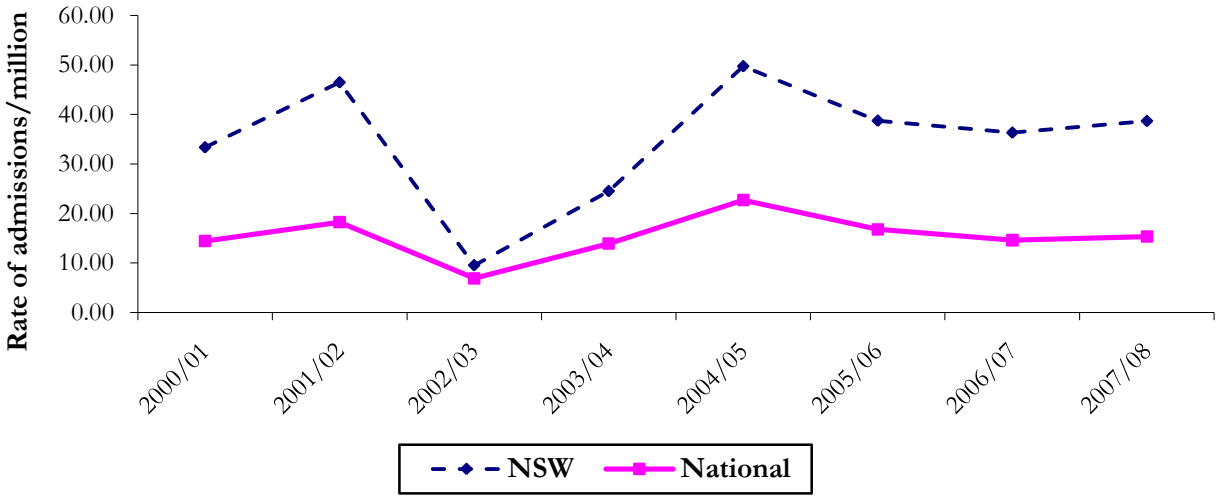


Source: National Hospital Morbidity Database, AIHW; (Roxburgh & Burns, in press)

6.5.2 Cocaine

The rates of inpatient hospital admissions where cocaine was the principal diagnosis per million people aged 15-54 years are shown in Figure 80. Both the national rate and that for NSW appear to have remained relatively stable from 2006/07 to 2007/08.

Figure 80: Number per million persons of principal cocaine-related hospital admissions among persons aged 15-54, NSW and nationally, 2000/01-2007/08

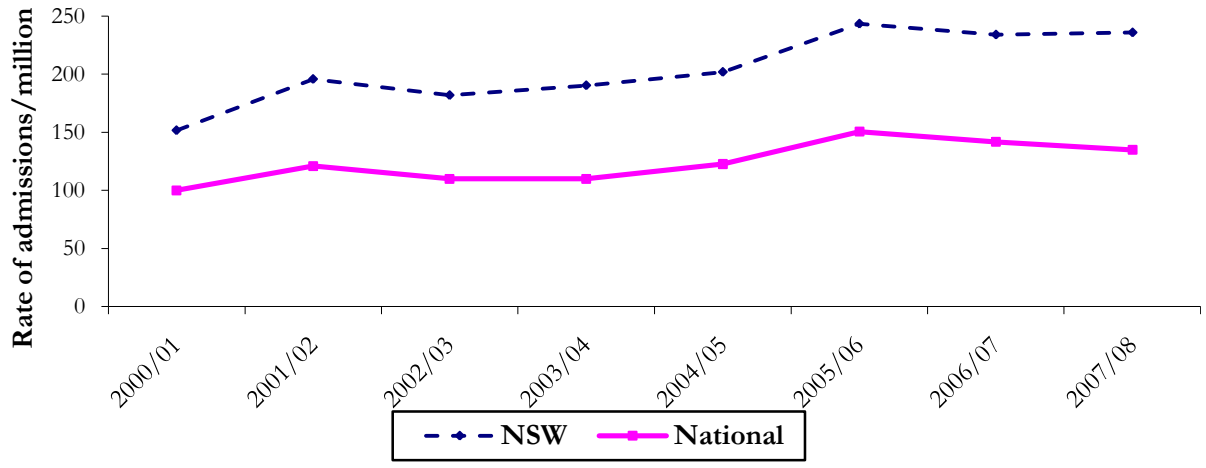


Source: National Hospital Morbidity Database, AIHW; Roxburgh and Burns (in press)

6.5.3 Cannabis

Figure 81 shows the rates of hospital admissions where cannabis was the principal diagnosis per million people aged 15-54 years. Rates in NSW remained higher than nationally, and had been so for the duration of the study. Since 2000/01, NSW accounted for between 50-60% of Australian inpatient hospital admissions where cannabis was the principal diagnosis.

Figure 81: Number per million persons of inpatient hospital admissions where cannabis was the principal diagnosis aged 15-54 years, 2000/01 to 2007/08



Source: National Hospital Morbidity Database; Roxburgh and Burns (in press)

6.6 Mental health and psychological distress

6.6.1 Self-reported mental health

Participants were asked whether they had experienced any mental health problems over the previous six months (Table 24). Approximately one-fifth of the group had recently experienced a mental health problem, a figure comparable with that recorded among the general population of a similar age range (16-24 years (26%) and 25-34 years (25%) (Australian Bureau of Statistics, 2007)). Mood and anxiety disorders were those most commonly reported. Almost two-thirds of those who experienced a mental health problem sought assistance from a health professional. Almost half of those who experienced a mental health problem had been prescribed medication for this with the majority (n=4) receiving antidepressants.

While there was no significant change, there appeared to be a declining trend in the proportions reporting a recent mental health problem from 2008 to 2010. Concurrently, there appeared to be a growing proportion of REU who were seeking help from a professional if they are indeed experiencing these problems (although this change was again, non significant when comparing 2008 to 2010).

Table 24: Mental health problems among REU, NSW 2008-2010

	2008 (N=100)	2009 (N=100)	**2010 (N=100)**
Any mental health problem recently (%)	31	28	**22**
Of these (%):			
Depression	71	57	**55**
Anxiety	48	43	**46**
Panic	16	18	**-**
Paranoia	13	11	**-**
Bipolar Disorder	7	4	**9**
Schizophrenia	3	-	**-**
Drug-Induced Psychosis	3	-	**-**
Obsessive Compulsive Disorder	3	-	**5**
Personality Disorder	3	-	**-**
Sought help from health professional (%)	39	43	**62**
Prescribed medication^ (%)	19	29	**45**

Source: EDRS regular ecstasy user interviews 2008-2010
^% of all of those who had recently experienced a mental health problem

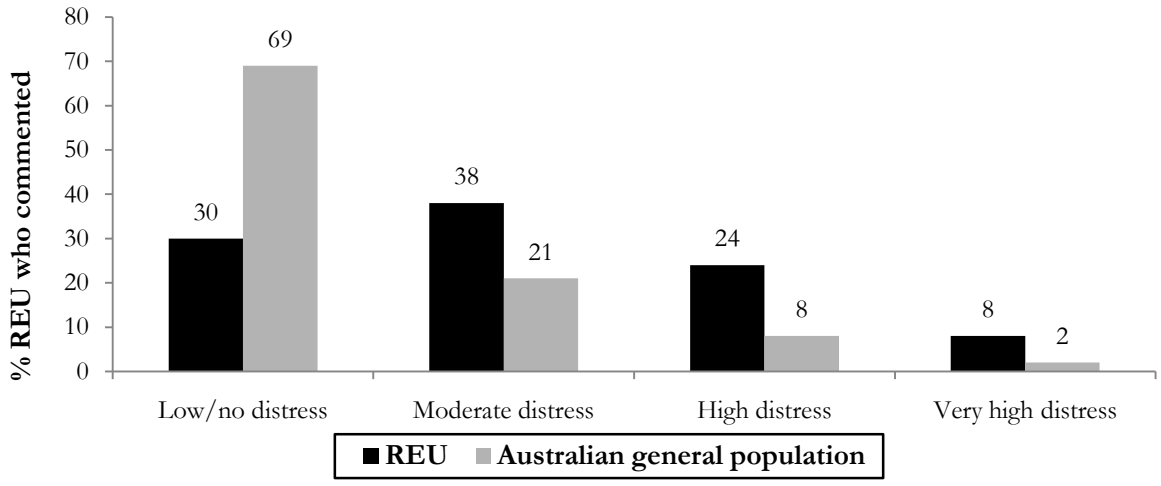
6.6.2 Kessler Psychological Distress Scale (K10)

From 2006, the EDRS has included the 10-item Kessler Psychological Distress Scale (K10) (Kessler, et al., 2002) which is a questionnaire designed to measure the level of distress and severity associated with psychological symptoms in population surveys. The minimum score is 10 and the maximum 50. Scores ranging from 10-15 are classified as 'low/no distress', 16-21 'moderate distress', 21-29 'high distress' and 30-50 'very high distress' (Australian Institute of Health and Welfare, 2008a).

The median score for participants was 18 (range 10-37). Approximately one-third of participants' scores fell into the 'low/no distress' category, over one-third fell into 'moderate distress', one-quarter fell into the 'high distress' category and eight participants' scores fell into the 'very high' distress category (Figure 82).

Figure 82 compares the spread of REU scores across these four categories with those of the general Australian population. While more than two-thirds of the general population fell into the low/no distress category, only one-third of REU in the current sample fell into this category. This places a much higher proportion of REU into the categories indicative of at least some level of psychological distress. Overall, REU appear to experience a higher level of psychological distress than the wider Australian public.

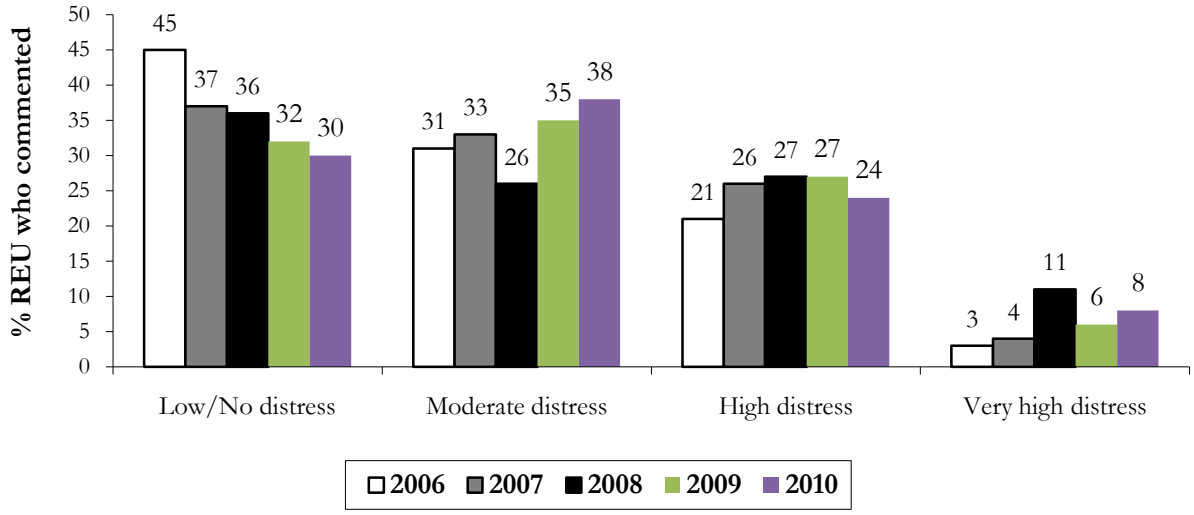
Figure 82: K10 scores for REU compared with the general Australian population, NSW 2010



Source: EDRS regular ecstasy user interviews 2010; Australian Institute of Health and Welfare (2008a)

Figure 83 presents data across time on the proportions of each sample from 2006 to 2010 that fell into each distress category. There appears to be a general decline in the proportion falling into the low/no distress category; indicating that across time there has been a greater number of participants experiencing some degree of psychological distress as measured by the K10. This would appear particularly true of the moderate and very high distress categories.

Figure 83: K10 scores across time for REU, NSW 2006-2010



Source: EDRS regular Ecstasy Interviews 2006-2010

7 RISK BEHAVIOUR

Summary:

- One-fifth of the sample had ever injected a drug and 14% had done so recently.
- Less than half the group had completed a Hepatitis B vaccination schedule.
- Rates of testing for BBVI were low with 20% having recently tested for Hepatitis C, 29% for HIV and 30% having recently had a sexual health check-up.
- Almost two-thirds of the sample had recently had penetrative sex with a casual partner. Almost one-fifth reported upwards of six casual partners over the preceding six months.
- Three-fifths of the sample had recently driven a vehicle. Over two-thirds of these had done so while over the legal blood alcohol limit and more than half after having taken an illicit drug.
- Participants completed the AUDIT. The majority (81%) of the group fell in the 'harmful drinking' range.

7.1 Injecting risk behaviour

Approximately one-fifth of participants had ever injected a drug and 14% had done so recently. Among those who had ever injected, the median number of drug types injected[20] was 4 (range 1-15) and, among recent injectors, the median number of drug types injected was 2 (range 1-7) (Table 25).

Table 25: Injecting risk behaviour among REU, NSW 2010

Variable	2009 (N=100)	**2010 (N=100)**
Ever injected (%)	9	**21**
Median number of drugs ever injected* (range)	2 (1-9)	**4 (1-15)**
Injected last 6 mths (%)	6	**14**
Median number of drugs injected last 6 mths** (range)	2 (1-4)	**2 (1-7)**

Source: EDRS regular ecstasy user interviews 2010
* Of those who had ever injected
** Of those who had injected in the last 6 mths

[20] This figure was calculated without combining licit and illicit benzodiazepines, pharmaceutical stimulants or antidepressants and may be higher than previous years where these drug types had been combined.

7.1.1 Lifetime injectors

Patterns of lifetime injecting drug use

The median age of initiation for respondents who had ever injected was 22 years (range 14-42). A wide range of drug types had ever been injected; however, those most frequently reported were heroin, cocaine, speed, crystal and ecstasy pills (Table 26). The most common drug first injected was heroin (32%) followed by speed (27%), cocaine (14%) and crystal (9%).

Table 26: Injecting drug use history among REU injectors, NSW 2010

Drug	Ever injected (%)		Ever injected (n)	
	2009	**2010**	2009	**2010**
Heroin	67	**68**	6	**15**
Cocaine	33	**68**	3	**15**
Speed	56	**55**	5	**12**
Crystal	44	**55**	4	**12**
Ecstasy pills	56	**50**	5	**11**
Base	56	**41**	5	**9**
Methadone	11	**27**	1	**6**
Other opiates	11	**23**	1	**5**
LSD	11	**18**	1	**4**
Ketamine	33	**14**	3	**3**
MDA	-	**14**	-	**3**
Buprenorphine	11	**9**	1	**2**
Benzodiazepines (illicit)	11	**9**	1	**2**
Ecstasy capsules	11	**9**	1	**2**
Alcohol	-	**9**	-	**2**
Ecstasy powder	11	**5**	1	**1**
Pharmaceutical stimulants (illicit)	-	**5**	-	**1**

Source: EDRS regular ecstasy user interviews 2010

7.1.2 Recent injectors

Patterns of recent injecting drug use

Participants who had injected a drug in the six months prior to the interview reported having injected any drug a median of 17 times (range 1-180) over this period. Participants were asked about the last time they had injected a drug. Heroin was the drug most commonly last injected (n=5) followed by cocaine (n=3), crystal (n=2), base (n=2), ecstasy (n=1) and benzodiazepines (n=1). The majority of those who had injected recently had done so in their own home (62%).

Injecting risk behaviour

One respondent reported having used a needle after someone else in the past six months and identified this person as a regular sex partner. Eight participants had used other injecting equipment (including spoons, filters tourniquets and water) after someone else during this period.

Context of injecting

Four participants reported usually injecting alone over the preceding six months. Others reported usually injecting with close friends (n=6), regular sexual partners (n=2) and family members (n=2). Recent injectors had commonly injected either while under the influence of ecstasy and other drugs (n=2), while coming down (n=4) or both (n=6).

Obtaining needles

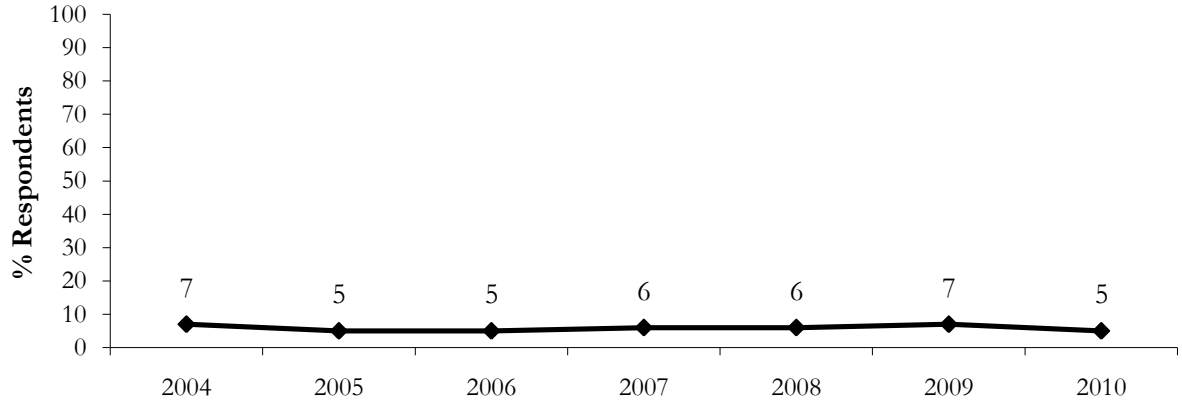
Respondents were asked to identify where they had obtained needles over the preceding six months. Needles were most commonly obtained from either vending machines (n=7), needle and syringe programs (n=6) or chemists (n=6). Smaller proportions reported having obtained needles from friends (n=5), dealers (n=3), partners (n=1) or outreach programs (n=1).

7.1.3 Injecting drug use in other populations

Data collected for the past four National Drug Strategy Household Surveys indicates that the proportion of the general population in NSW aged 14 years or over who had injected a drug in the past 12 months had remained relatively stable at 0.3% (1998, 2001, 2004) and 0.4% in 2007 (Fitzsimmons, 2000).

Data collected from the Sydney Gay Community Periodic Survey shows that, across sampling years, less than one in ten had injected any drug in the six months prior to interview (Figure 84). In 2010, five percent of the sample had recently injected any drug, a significant reduction from 7% in 2009 (Lee, et al., 2010).

Figure 84: Proportion of gay men in Sydney reporting injecting drug use, 2004-2010



Source: Sydney Gay Community Periodic Survey, 2004-2010

7.2 Blood-borne viral infections (BBVI)

Two-fifths (42%) of REU who commented in 2010 reported that they had never been vaccinated for hepatitis B virus (HBV). Half (50%) had completed the vaccination schedule and 8% had begun, but not completed the schedule. Almost one-in-ten (9%) were uncertain whether or not they had been vaccinated for HBV.

Of those who had either begun or completed HBV vaccination (n=51), the majority (33%) reported travelling overseas as the main reason for vaccination. Other reasons included being vaccinated as a child (26%), being at risk due to injecting drug use (10%), for work (8%) and being at risk sexually (4%). One-fifth (20%) were vaccinated for other reasons, typically because either someone close to them had contracted HBV or their doctor recommended it.

The majority of the sample (62%) had reportedly never been tested for hepatitis C virus (HCV). One-fifth (21%) had been tested within the past year, and 17% more than one year ago. Five participants reported being HCV positive.

Almost half the sample (48%) reported they had never been tested for HIV. Almost three-in-ten (29%) reported having been tested within the last year, and almost one-quarter (23%) had reportedly been tested for HIV more than one year ago. Three participants reported they were HIV positive.

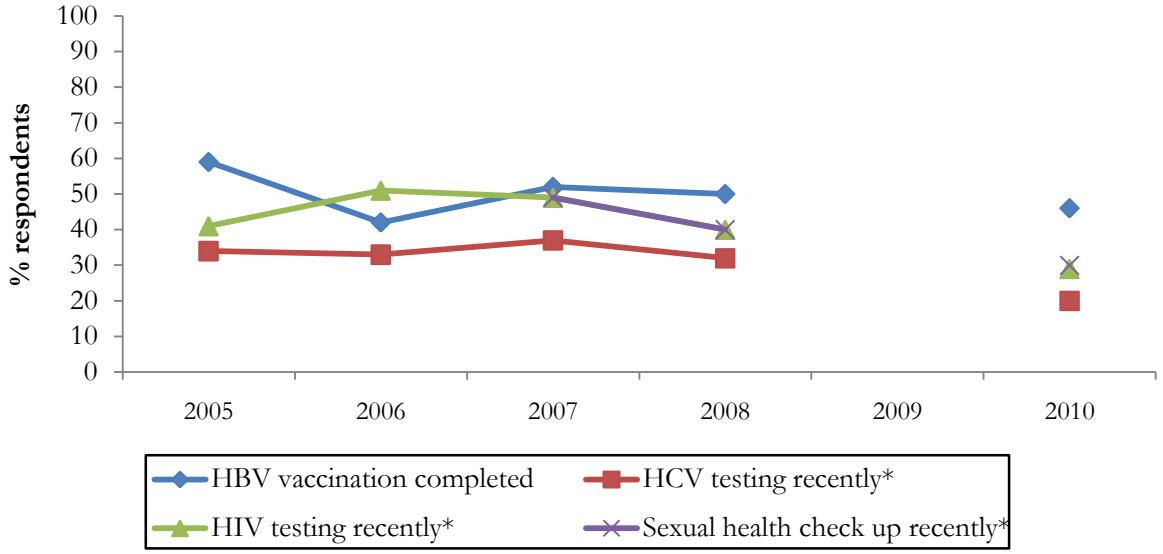
Almost half the sample (49%) had reportedly never had a sexual health check up. Almost one-third (30%) had done so within the last year and one-fifth (21%) had done so more than one year ago. Fourteen participants reported they had been diagnosed with an STI more than one year ago, and one participant had been diagnosed within the last year.

On further analysis, participants who reported having completed HBV vaccination were found to have nearly three times the odds of having been recently tested for HCV (OR=2.79, 95%CI: 1.00-7.74) although there was no difference in the odds of testing for HIV.

People with a history of injecting drug use are at greater risk of acquiring HBV, HCV and HIV than the general population (NCHECR, 2002). This is because BBVI can be transmitted through the sharing of needles, syringes and other equipment**.** BBVI vaccination and testing may be considered a marker of awareness of the risks involved with injecting. Therefore, those who had a history of injecting drug use were compared with those who had never injected to investigate whether they were more likely to report HBV vaccination and HCV and HIV testing.

Participants who had ever injected a drug had significantly higher odds (OR=5.52, 95% CI:1.83-16.63) of having completed the vaccination schedule for HBV and of having been recently tested for HCV (OR=3.43, 95% CI: 1.17-10.06). Again, no differences were found in recent testing for HIV.

Figure 85: BBVI testing and vaccination, NSW 2005-2010



Source: EDRS Regular ecstasy user interviews 2005-2010
*** In the last year**
Note: response option 'don't know' was removed from analyses from 2010

Table 27 presents the rates of testing for BBVIs and HBV vaccination among REU across time. The figures observed in 2010 were not significantly different to those reported in 2008.

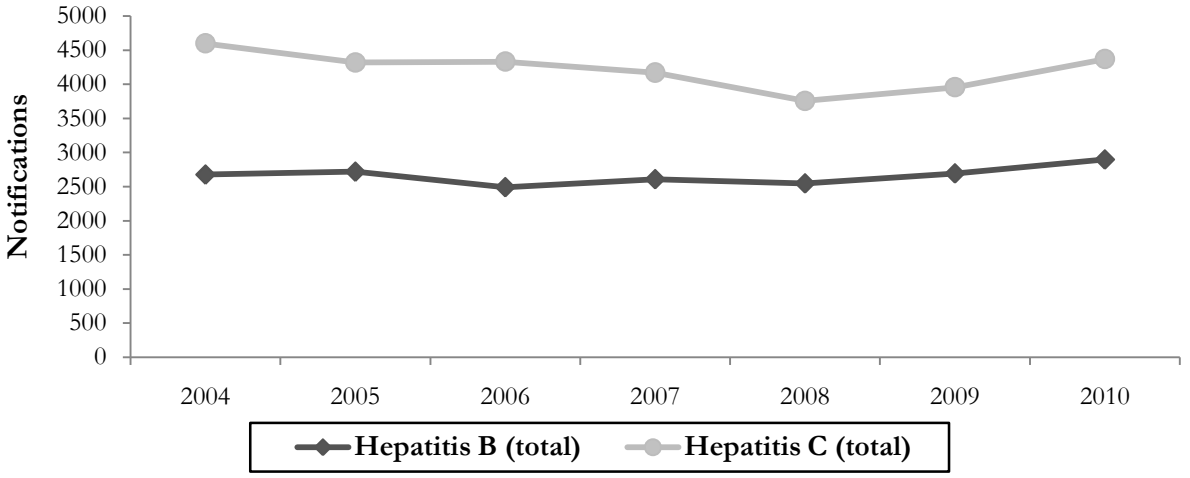
Table 27: BBVI testing and vaccination, NSW 2005-2010[#]

Of **those** who responded (%)	2005 (N=101)	2006 (N=100)	2007 (N=100)	2008 (N=100)	2009 (N=100)	**2010 (N=100)**
HBV vaccination completed	59	42	52	50	-	**50**
HCV testing recently*	34	33	37	32	-	**21**
HIV testing recently*	41	51	49	40	-	**29**
Sexual health check up recently*	-	-	49	40	-	**30**

Source: EDRS Regular ecstasy user interviews 2008-2010
*** In the last year**
[#] Questions not asked in 2009
Note: response option 'don't know' was removed from analyses from 2010

Figure 86 shows the total number of notifications for HBV and HCV in NSW (Communicable Diseases Network Australia, 2008). Incident (newly acquired) infections and unspecified infections (i.e. notifications where the timing of the disease acquisition is unknown) are presented. HCV continues to be more commonly reported than HBV. Both figures appear to have increased since 2007.

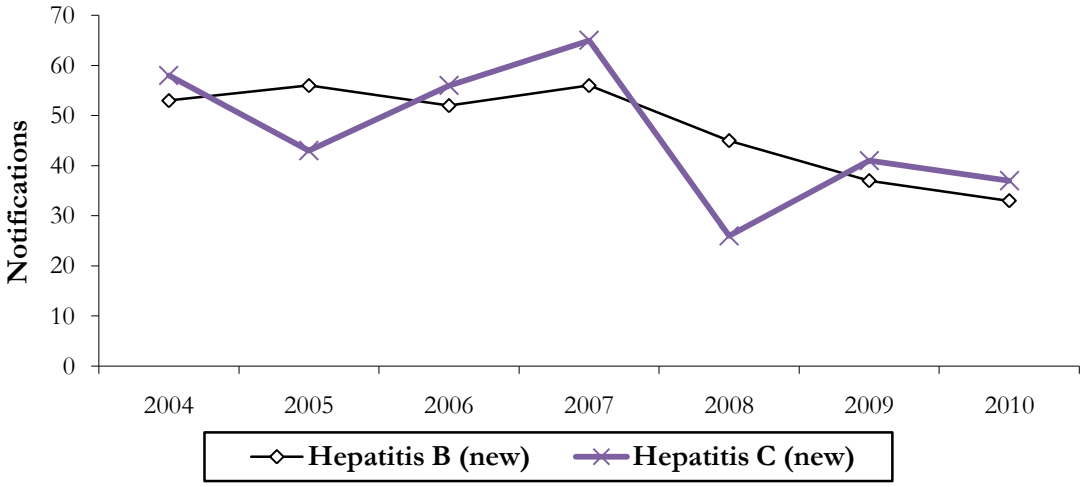
Figure 86: Total notifications for (incident and unspecified) HBV and HCV infections, NSW 2004-2010



Source: Communicable Diseases Network – Australia – NNDSS[21]

Trends in the number of incident notifications for HBV and HCV in NSW are shown in Figure 87. While the number of incident HCV infections has varied over time, both figures appear to have been in decline, in contrast to the figures presented above which reflect the total number of notifications for HBV and HCV (i.e. incident and unspecified).

Figure 87: Total notifications for incident HBV and HCV infection, 2004-2010



Source: Communicable Diseases Network – Australia – NNDSS

[21] There are several caveats to the NNDSS data that need to be considered. As no personal identifiers are collected, duplication in reporting may occur if patients move from one jurisdiction to another and are notified in both. In addition, notified cases are likely to represent only a proportion of the total number of cases that occur, and this proportion may vary between diseases, between jurisdictions, and over time.

7.3 Sexual risk behaviour

Participants were asked questions about their recent sexual activity, particularly with regards to penetrative sex. This was defined as 'penetration by penis or fist of the vagina or anus'. Given the sensitive nature of these questions, participants were given the option of self-completing this section of the questionnaire.

The majority (76%) of the sample in 2010 reported having had a regular partner over the six months preceding the interview. Participants were asked how often they had used a sexual barrier (e.g. condoms/gloves) when having penetrative sex with a regular partner both when under the influence of alcohol or drugs and also when 'not' under the influence (Table 28). Approximately one-tenth of participants reported using protection 'every time' with their regular partner when not under the influence and a similar proportion reported doing so 'every time' when they were.

Table 28: Use of sexual barriers with regular partners, NSW 2009-2010

Variable	2009 N=100	**2010 (N=100)**
How often used barrier with regular partner when:		
a) Not under the influence of AOD (%)	n=80	**n=76**
Every time	24	**12**
Often	21	**13**
Sometimes	8	**13**
Rarely	16	**20**
Never	31	**42**
b) Under the influence of AOD (%)	n=78	**n=76**
Every time	21	**11**
Often	17	**11**
Sometimes	12	**6**
Rarely	13	**24**
Never	39	**49**

Source: EDRS regular ecstasy user interviews 2009-2010

Just under two-thirds of the sample reported having had penetrative sex with at least one causal partner (i.e. someone who was not a regular partner) over the preceding six months. Of these, almost half (45%) reported casual sex with one or two partners. Almost one-fifth (19%) reported upwards of six casual partners over this time (Table 29).

The majority (78%) of those who reported penetrative sex with a casual partner also reported having done so while under the influence of alcohol or drugs (Table 29). The drugs most commonly used were alcohol, ecstasy, cannabis and cocaine. Participants were also asked how

often they had used a sexual barrier when having penetrative sex with a regular partner both when under the influence of alcohol/drugs and also when 'not' under the influence. Similar to the case with regular partners, the proportion who used a protective barrier 'every time' was similar under both conditions (approximately one-third).

Table 29: Trends in sexual activity with casual partners in the preceding six months, NSW 2009-2010

Variable	2009 (N=100)	2010 (N=100)
Casual penetrative sex (%)	65	**60**
No. of sexual partners (%):*		
One person	17	**35**
Two people	23	**10**
3-5 people	45	**37**
6-10 people	9	**12**
10+ people	6	**7**
Penetrative sex with casual partner while on drugs	n=57	**n=47**
Drugs used (%):		
Alcohol	83	**72**
Ecstasy	64	**55**
Cannabis	42	**47**
Cocaine	21	**11**
Amyl nitrite	7	**6**
Crystal	5	**6**
LSD	5	**9**
Ketamine	4	**9**
Speed	4	**6**
Base	4	**9**
GHB	2	**9**
Benzodiazepines	2	**4**
How often used barrier with casual partner when:		
a) Not under the influence of AOD (%)	n=64	**n=60**
Every time	47	**35**
Often	16	**17**
Sometimes	13	**17**
Rarely	11	**5**
Never	14	**18**
b) Under the influence of AOD (%)	n=57	**n=46**
Every time	40	**33**
Often	19	**26**
Sometimes	19	**13**
Rarely	9	**15**
Never	12	**13**

Source: EDRS regular ecstasy user interviews 2009-2010
* of those who had penetrative sex in the last 6 mths

7.4 Driving risk behaviour

Participants were asked a series of questions regarding driving and the use of alcohol and other drugs (Table 30). Three-fifths of participants in 2010 had driven a car, motorcycle or other vehicle in the preceding six months. Approximately half of these (49%) had driven under the influence of alcohol during this time. Just under two-fifths (37%) of all those who had driven had done so over the legal blood alcohol limit[22]. Those who reported having driven over the legal limit reported having done this on a median of two occasions (range 1-6) in the preceding six months. One-third (35%) of those who had driven during the last six months had been subject to a roadside breath test within that time. Three participants reported having tested over the legal blood alcohol limit at least once.

Over half (59%) of those who had recently driven had done so after using an illicit drug on a median of 3 occasions (range 1-180). The drugs most commonly used prior to driving included cannabis (68%), ecstasy (40%) and cocaine (13%) (Table 30).

Table 30: Drug driving in the last six months among REU, NSW 2008-2010

Variable	2008 (N=100)	2009 (N=100)	**2010 (N=100)**
Driven a car in the past six months (%)	66	75	**65**
Driven under the influence of alcohol* (%)	65	49	**49**
Driven over the limit of alcohol* (%)	51	40	**37**
Driven after taking an illicit drug* (%)	53	68	**59**
Of those who had driven after taking a drug:			
Drug (%)	n=35	n=50	**n=38**
Cannabis	43	64	**68**
Ecstasy	63	60	**40**
Cocaine	20	8	**13**
Speed	17	8	**5**
Base	6	8	**-**
LSD	-	6	**5**
Crystal	23	4	**5**
Ketamine	3	4	**3**
Mushrooms	3	2	**-**
GHB	9	-	**-**
Amyl nitrite	6	-	**-**

Source: EDRS regular ecstasy user interviews 2008-2010

*Of those who had driven a car in the last 6 mths

Participants were asked a series of questions focussing on the last occasion on which they drove after taking an illicit drug. The drugs most commonly reported as having been taken on the last occasion were cannabis (68% of respondents), ecstasy (26%) and cocaine (11%). Participants reported having driven a median of 1 hour (range 0-30) after taking an illicit drug.

[22]Participants reported according to their own perception of their blood alcohol content.

When asked how they thought having recently taken a drug had impacted on their driving on the last occasion, more than half of respondents believed that it had been impaired (18% 'quite impaired' and 40% 'slightly impaired'). One-third (34%) believed that there had been no impact on their driving ability and 8% believed that it was 'slightly improved'. Four participants had been tested by a police roadside drug testing van. In three cases the last result was negative and in one case it was inconclusive.

7.5 Problematic alcohol use among REU

7.5.1 Alcohol Use Disorders Identification Test (AUDIT)

In 2007, 2008 and 2010 the EDRS included the Alcohol Use Disorders Identification Test (AUDIT) (Saunders, Aasland, Babor, de la Fuente, & Grant, 1993). The AUDIT was designed by the World Health Organization as a brief screening scale to identify individuals with alcohol problems, including those in early stages. It is a 10-item scale, designed to assess three conceptual domains: alcohol intake, dependence and adverse consequences (Reinert & Allen, 2002).

Total scores of eight or more are recommended as indicators of hazardous and harmful alcohol use, as well as possible alcohol dependence (Babor, de la Fluente, Saunders, & Grant, 1992). Higher scores indicate greater likelihood of hazardous and harmful drinking; such scores may also reflect greater severity of alcohol problems and dependence, as well as a greater need for more intensive treatment (Babor, et al., 1992).

The median score on the AUDIT for the 2010 sample was 13 (range 0-38), comparable with data from 2008 (mean 12.7, SD=8.1, range 0-35). More than three-quarters of the sample (81%) scored in the harmful range (i.e. total score of 8 or more). There was no significant difference between men and women (13 vs. 11; $U=1050.5,\ p>0.05$). The AUDIT guidelines (Babor, Higgins-Biddle, Saunders, & Monteiro, 2001) indicate four 'zones' into which total scores on the test can be divided. In the current sample, one-fifth (19%) scored in zone 1 (low risk drinking or abstinence), two-fifths (39%) scored in zone 2 (alcohol in excess of low-risk guidelines), one-fifth (18%) scored in zone 3 (harmful or hazardous drinking) and one-quarter (25%) scored in zone 4 (possible alcohol dependence – may be referred for evaluation and possible treatment).

7.5.2 Alcohol Quantity Frequency and Variability Assessment (AQFV)

In 2009, a new measure of alcohol consumption was included in the EDRS as a way of more accurately measuring the quantity and frequency of alcohol use while taking into account variability of this over the course of the past year. The Alcohol Quantity Frequency and Variability assessment[23] (AQFV) is a self-report measure which examines alcohol use over the preceding six months. It has three categories: a) typical drinking; b) regular changes, e.g. weekends; and c) occasional changes, e.g. festivals, parties. Respondents are able to indicate a range for the number of drinks they consume for each section and then indicate on how many days per week, month or year they drink this amount. For example, a participant may report for

[23] Many thanks to Dr James Lemon, previously of the National Drug and Alcohol Research Centre, for his kind permission to use the AQFV assessment in the EDRS.

the 'typical drinking' section that they consume '2-3 standard drinks, 3 days per week' or '5-6 standard drinks, 2 days per month' etc.

Using the information gleaned from the AQFV assessment, the number of days that each participant consumed alcohol over the course of a year, and the amount of alcohol consumed on each drinking day, was computed. Each drinking day was then defined as either a) low risk (up to 6 drinks for men or 4 for women); b) risky (from 7 to 10 drinks for men or 5 to 6 for women); or c) high risk (11 drinks and above for men or 7 and above for women) (National Health and Medical Research Council, 2001).

Table 31 presents the frequency and quantity of alcohol consumption for male and female REU in NSW in 2010. Men consumed a significantly greater number of drinks per drinking session overall than women did (7.7 vs. 5.7, *U=1,121.5, p=0.05*). Men drank at high risk levels approximately once per fortnight and women almost twice a week.

Table 31: Frequency and quantity of alcohol consumption among REU, NSW 2010

	Men (n=74)	**Women** (n=26)	**NSW** (N=100)
Median number of drinking days/year (range):			
Low Risk	33 (0-319)	19 (0-196)	29 (0-319)
Risky	12 (0-245)	17 (0-260)	12 (0-260)
High Risk	12 (0-303)	40 (0-237)	21 (0-303)
Average no. drinks per session	7.7	5.7	7.6

Source: EDRS regular ecstasy user interviews 2010

8 LAW ENFORCEMENT-RELATED TRENDS ASSOCIATED WITH ERD USE

Summary:

- One-quarter of REU had reportedly been arrested over the past year.
- More than one-third of REU had committed a crime within the past month. Most commonly drug dealing and property crimes.
- Participants reported that police activity had made it more difficult for them to take drugs into events and venues.
- The number of arrests for ecstasy use/possession seemed to have decreased from mid-to-late 2009 onward. Increases were noted in the numbers of arrests for both use/possession and deal/trafficking of amphetamines. The numbers of police-recorded incidents for the use or possession of cocaine and of cannabis have been increasing since mid-2007.
- The majority of participants (86%) reported that half or more of their friends had used ecstasy during the previous six months.
- The majority (94%) of participants had seen sniffer dogs in the six months preceding the interview in a variety of settings including festivals/events and also walking around party precincts and near public transport.

8.1 Reports of criminal activity among REU

Approximately one-quarter of REU interviewed in 2010 had reportedly been arrested over the preceding 12 months. There had been nine arrests made for the use/possession of illicit substances, six arrests for violent crime, three arrests for property crime, three arrests for driving under the influence of alcohol and one person each had been arrested for dealing/trafficking drugs, fraud, non-DUI driving offence and resisting arrest.

Over one-third of participants had committed a crime in the month leading up to the interview (Table 32). Approximately one-quarter (n=26) of participants had dealt drugs over this period. Of these, the majority of respondents (n=17) had done so less than once a week, four respondents once a week and three respondents more than once a week but less than daily. Approximately one-fifth (n=18) of REU had committed property crime over the last month. Seven REU had done so less than once per week, three REU on a weekly basis, another seven had done so more than once per week but less than daily and one person on a daily basis. Four participants had engaged in violent crime over this period (all less than once per week) and four participant had engaged in fraud (all less than once per week).

Table 32 presents data across time on both self-reported criminal activity and arrests among samples of REU. In 2010, approximately one-third of participants reported having committed any crime in the month preceding the interview. This figure was comparable with that reported in 2009. Drug dealing has been the most commonly reported crime across time and continued

to be so in the current sample. Proportions reporting dealing, property crime and fraud all remained relatively stable from 2008 to 2009. In contrast, the proportion reporting they had been arrested in the last year increased significantly (95% CI: -0.02– -0.23, *p=0.03*), following a generally increasing trend since 2008.

Table 32: Criminal activity reported by REU, NSW 2004-2010

Criminal activity in the last month	2004 (N=104)	2005 (N=101)	2006 (N=100)	2007 (N=100)	2008 (N=100)	2009 (N=99)	**2010 (N=100)**
Any crime	*19*	*29*	*27*	*23*	*24*	*36*	***35***
Drug dealing	12	23	21	15	15	21	**26**
Property crime	5	8	13	13	11	18	**18**
Fraud	4	2	4	1	2	3	**4**
Violent crime	4	1	2	2	1	8	**4**
Arrested last 12 months	11	6	7	14	5	11	**24**

Source: EDRS regular ecstasy user interviews 2004-2010

8.2 Perceptions of police activity towards REU

The majority of REU interviewed reported that police activity toward REU had either remained stable (50%) or increased (39%) in the preceding six months. Two participants felt it had decreased and nine were unable to comment (

Table 33). As in previous years, the majority of participants reported that police activity had not made it more difficult for them[24] to obtain drugs over the preceding six months. Importantly, while many participants stated that police activity had not made it more difficult for them to score drugs, it is not possible to draw conclusions regarding the effect of police activity on other participant behaviours – for example, it may act as a deterrent to entering nightclubs in possession of drugs. One participant reported that "police activity has not made it more difficult to get ecstasy but more difficult to use it e.g. to bring to events and venues" another noted that "it's not harder to get drugs, but more difficult to get drugs into places".

Participants were asked to specify changes in police activity which they had observed. Participants specifically noted that drug-focused policing (including the use of drug detection dogs and a generally increased police presence), which had previously been more focussed on specific events and festivals, had become more common in party precincts in the city and around public transport.

[24] Participants were asked "Has police activity made it more difficult for you to score drugs in the last six months?" (yes/no).

Table 33: Perceptions of police activity by REU, NSW 2004-2010

Perception	2004 (N=104)	2005 (N=101)	2006 (N=100)	2007 (N=100)	2008 (N=100)	2009 (N=100)	**2010 (N=100)**
Recent police activity:							
Decreased	1	2	10	0	3	2	**2**
Stable	41	36	29	40	38	44	**50**
Increased	45	49	32	47	33	44	**39**
Don't know	13	14	28	13	25	10	**9**
Did not make scoring more difficult	85	92	86	92	92	77	**80**

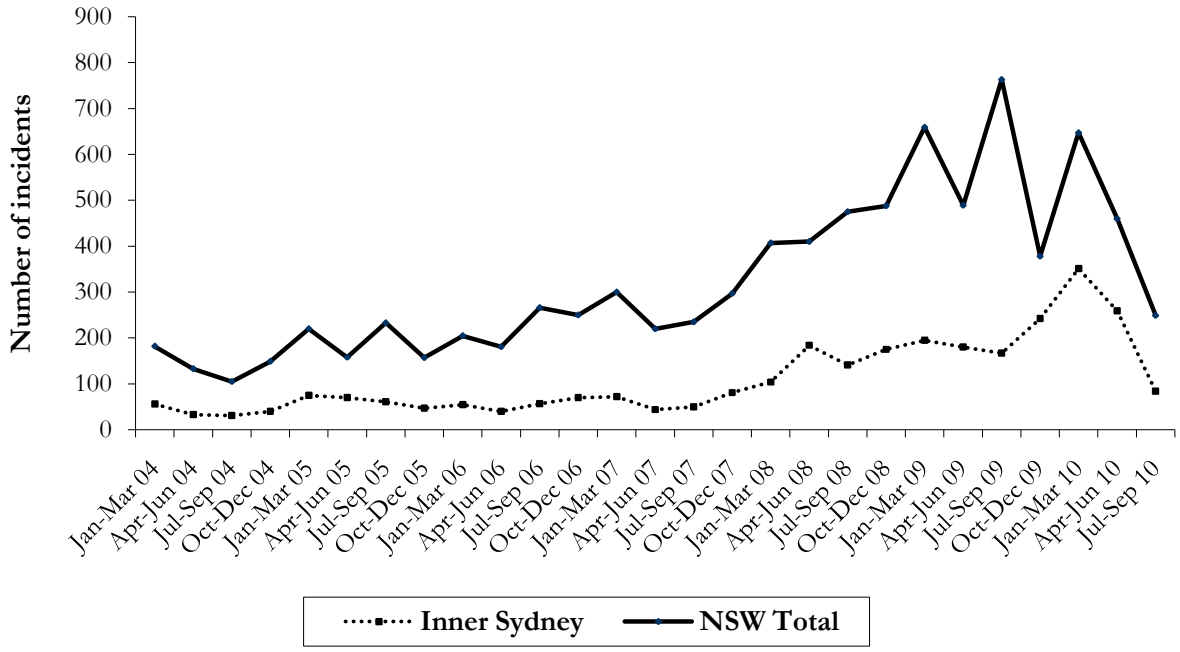
Source: EDRS regular ecstasy user interviews 2004-2010

8.3 Arrests

8.3.1 Ecstasy

Figure 88 presents the number of police-recorded criminal incidents for ecstasy possession and use in inner Sydney and NSW. While number of incidents per month is highly variable, there has been a declining trend from mid-to-late 2009 to September 2010 in the number of incidents recorded in NSW in total. A similar trend has also been noted in the Inner Sydney region from January 2010 to September 2010.

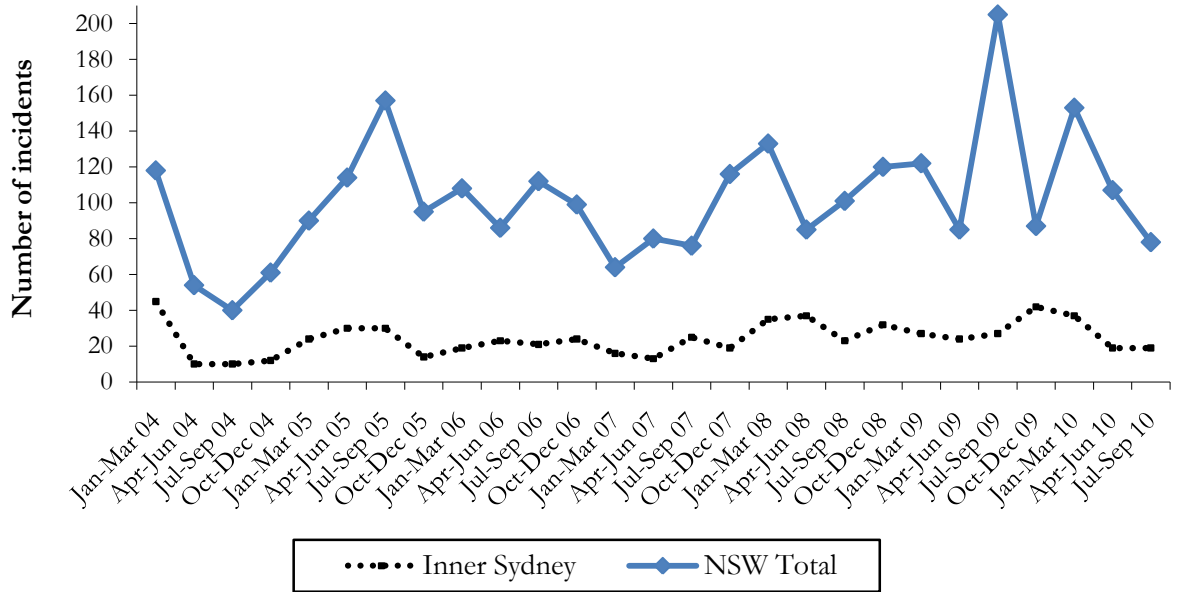
Figure 88: Number of police incidents recorded for ecstasy possession/use, quarterly, 2004-2010



Source: NSW Bureau of Crime Statistics and Research (BOCSAR)

Figure 89 presents the number of police-recorded incidents for ecstasy dealing and trafficking for inner Sydney and NSW. The number of incidents involving dealing or trafficking of ecstasy has been fluctuating within NSW and Sydney over the past few years. At this stage, no discernable trend is seen.

Figure 89: Number of police incidents recorded for ecstasy deal/traffic, quarterly, January 2004-September 2010

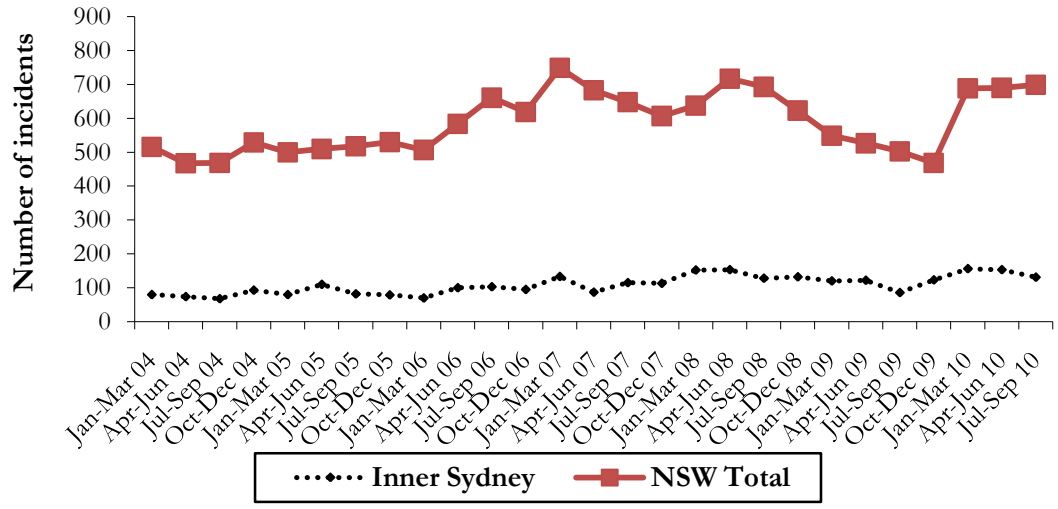


Source: NSW Bureau of Crime Statistics and Research (BOCSAR)

8.3.2 Methamphetamine

Figure 90 shows the recorded incidents of amphetamine possession or use for inner Sydney and NSW. While there appeared to be a decline in the number of incidents reported from July 2008 to September 2009 in NSW overall; these figures rose to levels comparable with those observed in mid-2008 throughout 2010. In contrast, the numbers of arrests recorded in Inner Sydney have remained relatively stable.

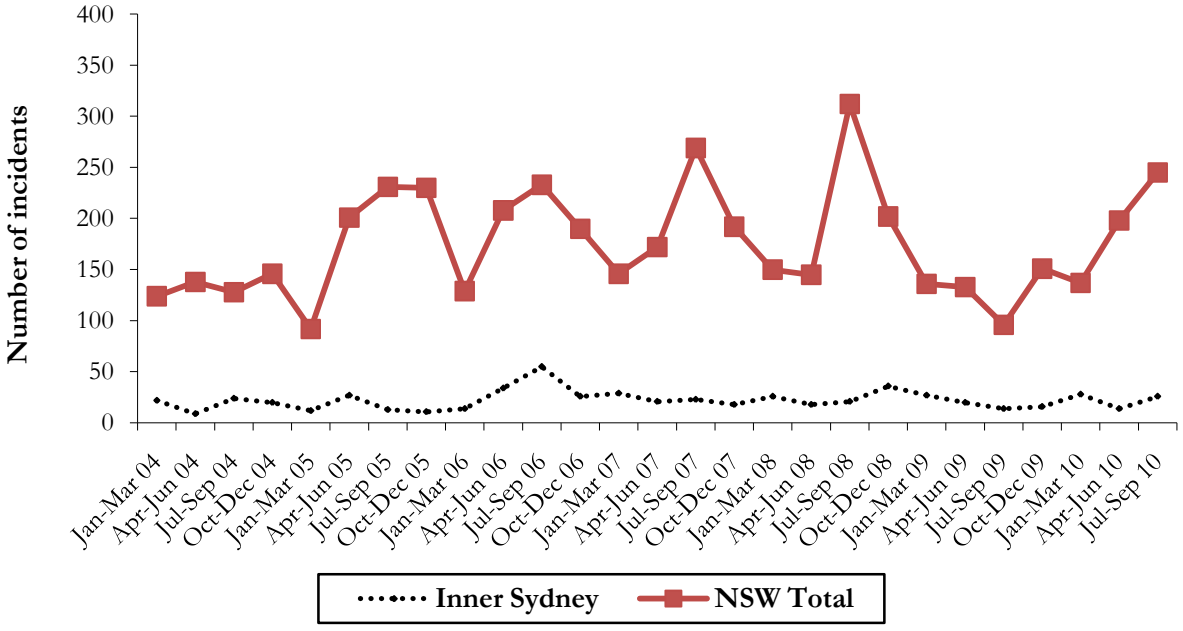
Figure 90: Recorded incidents of amphetamine possession/use per quarter, inner Sydney and NSW, quarterly, 2004-2010



Source: NSW Bureau of Crime Statistics and Research (BOCSAR)

Figure 91 shows the number of police-recorded criminal incidents for amphetamine deal/trafficking in the inner Sydney area and NSW. From July 2009 to September 2010 there appears to have been an increase in the number of arrests made in NSW overall; however, similar to the graph above, these figures have remained relatively stable in the inner Sydney region. This suggests that there has been an increase in methamphetamine-related arrests in other areas of the state.

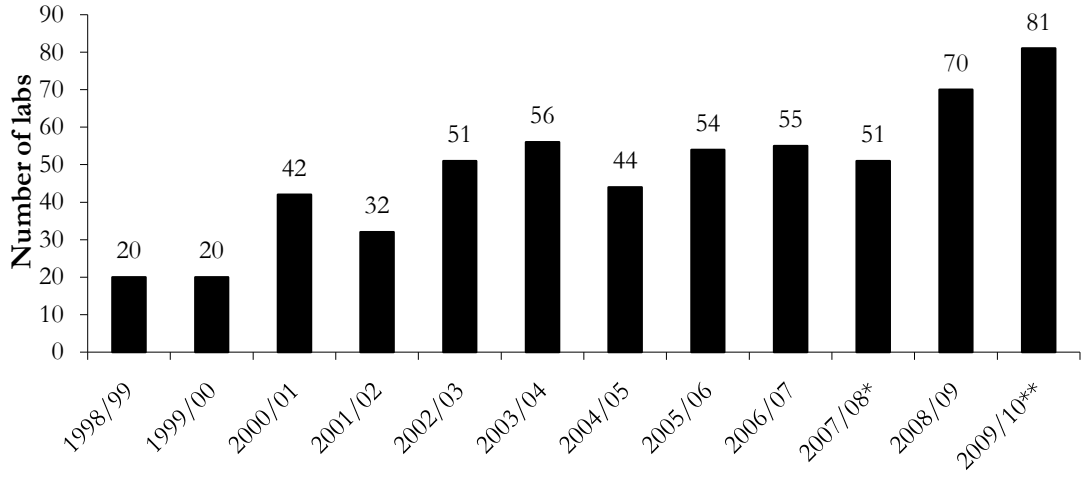
Figure 91: Recorded incidents of amphetamine deal/traffic per quarter, inner Sydney and NSW, 2004-2010



Source: NSW Bureau of Crime Statistics and Research (BOCSAR)

The number of clandestine methamphetamine and MDMA laboratories detected in NSW continued to increase in 2009/10. In this year, there were 81 detections, of which approximately three-quarters were storage sites, one-quarter where inactive and the remainder were a combination of active or historical storage sites (Figure 92).

Figure 92: Number of clandestine methamphetamine and MDMA laboratories detected by NSW police 1998/99-2009/10



Source: NSW Police Service
NB: **D**ata may include active, non-active and historical laboratories as well as storage sites
* 2 of these were PMA laboratories
** 1 of these was a PMA laboratory

8.3.3 Cocaine

The number of police-recorded incidents for cocaine possession/use have been increasing since approximately mid-2007 (Figure 93). Incidents reported in Inner Sydney represent approximately half of all incidents recorded in NSW, and have continued to do so over time.

Figure 93: Recorded incidents of cocaine possession/use per quarter, 2004-2010

Source: NSW Bureau of Crime Statistics and Research (BOCSAR)

Figure 94 shows the number of police-recorded criminal incidents for cocaine deal/trafficking in the inner Sydney area and NSW. There appeared to be a spike in the number of arrests made in late-2009, however, these figures returned to baseline by mid-late-2010.

Figure 94: Recorded incidents of cocaine deal/traffic per quarter, inner Sydney and NSW, 2004-2010

Source: NSW Bureau of Crime Statistics and Research (BOCSAR)

8.3.4 Ketamine

Although it is an offence in jurisdictions such as NSW to be in the possession of ketamine for personal use or in amounts suggesting an individual is supplying others, ketamine is not separately recorded in police databases. Therefore, no data were available on the number of police apprehensions for possession or supply of this controlled substance.

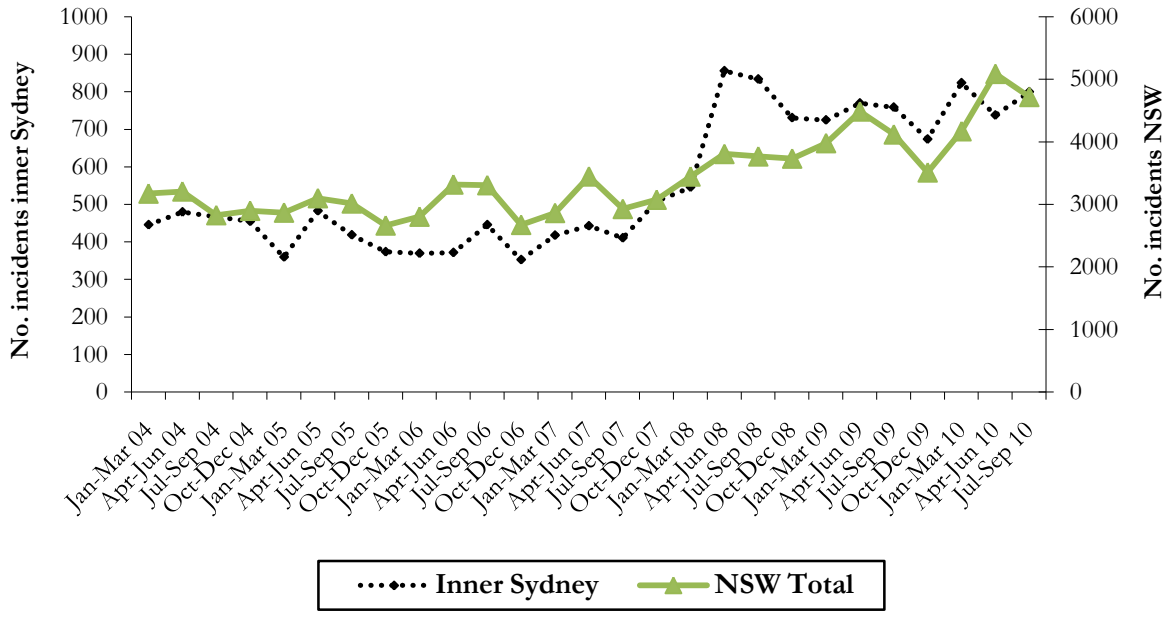
8.3.5 GHB

GHB, GBL and 1,4-B are controlled substances in Australia, and possession of them is an offence. GHB has been separately recorded in the NSW Police database since 2007 however, data were unavailable at the time of printing.

8.3.6 Cannabis

Figure 95 shows the number of police-recorded incidents of cannabis possession/use per quarter in the inner Sydney area and NSW overall. The number of incidents reported in inner Sydney appears to have increased from mid-2007 to mid-late-2010, reflecting a general increase noted across the same time frame in NSW as a whole. It is difficult to ascertain whether this reflects increased use of cannabis in these areas or rather increased police attention to the detection of cannabis.

Figure 95: Recorded incidents of cannabis possession/use per quarter, inner Sydney and NSW, 2004-2010



Source: NSW Bureau of Crime Statistics and Research (BOCSAR)

8.4 Perceptions of changes in peer drug use

The majority of participants (86%) reported that half or more of their friends had used ecstasy during the previous six months (6% 'all'; 47% 'most'; 33% 'about half'). Fourteen participants reported that 'a few' of their friends had used ecstasy.

More than half (58%) of participants had perceived changes in drug use amongst their social group. In 2010, as in 2009 the theme of trying new drugs was very common with 37 comments made along this vain. These comments could be further divided into two groups, one group simply stated that there had recently been more experimentation among their group of friends without identifying reasons why. The drugs most commonly specified in these comments were crystal/ice (n=8), heroin (n=6) and LSD (n=4).

The second group (n=10) explicitly stated that there had been shifts in the types of drugs used due to the low purity of ecstasy available on the market over the preceding six to twelve months. Among this group, the drugs most commonly identified as being used *instead of* ecstasy were cocaine (n=4), LSD (n=4) and GHB (n=3).

It is interesting to note that, while LSD was commonly identified in both groups, the other drugs were quite different. One possible interpretation is that REU may move on to experiment with other drugs for different reasons. If they are dissatisfied with the quality of ecstasy, they may turn to cocaine, LSD or GHB in an attempt to find a drug which can produce the effect they enjoy from 'good' ecstasy, or simply to find better value for money. One user commented that their friends had been "going from ecstasy to cocaine [because they] think it's a cleaner drug and they have more money" (i.e. they have more money to spend now than they used to). Another commented that "tabs are coming back into trend (sic)". Another participant commented that "Older users (late 20's) are finding that the fun of taking ecstasy is decreasing because it is an extroverted drug and LSD is increasing because it is more introverted and, therefore, appealing to people that have more going on in their lives".

However, it is also possible that another group of REU make the transition from ecstasy to drugs such as crystal, heroin and LSD for other reasons. These drugs were commonly referred to as 'harder drugs' by REU who commented. One person noted that "people who initially said they'd use ecstasy only, often start using other drugs. People are more open to trying other drugs once they've had one...". It may be that there is a sub-group of REU who are at elevated risk of transitioning to regular use of crystal or heroin, drugs which are commonly associated with riskier routes of administration such as smoking and injecting. Identifying subtle trends such as this may be useful for clinicians who come into contact with this group or in terms of better targeting education campaigns.

Nine participants commented on trends in the prevalence in drug use among their social circles. The majority (n=7) noted that there had been an increase in the prevalence of use and sometimes also the frequency and quantities used. Two participants had noted a decrease in drug use among their friends. One of these commented that they had noticed "less drug use in general as the quality of drugs is bad and cocaine is getting expensive".

Several participants (n=9) reported that they had heard more about mephedrone although the vast majority reported that they had never tried it themselves.

Two participants commented on changes in the behaviour of dealers as a result of police activity. One participant noted that "dealers are not stocking pills because of the high rate of raids" and another reported that "more dealers are getting caught".

8.5 Experiences with drug detection 'sniffer' dogs

In 2010, participants were asked for the fifth year about their experiences with drug detection 'sniffer' dogs. The majority (94%) of participants had seen sniffer dogs in the six months preceding the interview in a variety of settings, similar to that from 2009 (93%). In 2010, participants were asked to specify where they had recently seen sniffer dogs and how many times (Table 34). REU had most commonly seen sniffer dogs at festivals or live music events. However, large proportions reported having seen them on or around public transport and in nightclubs. Some of the most common 'other' locations reported were 'on the street' in popular party districts such as Newtown, Oxford Street and Kings Cross.

Table 34: Locations at which REU have recently seen sniffer dogs, NSW 2010

Location	n	Median number of times (range)
Festival or live music event	81	3 (1-10)
Public Transport	53	2 (1-48)
Nightclub	48	2 (1-48)
Other locations	40	4 (1-25)

Source: EDRS regular ecstasy user interviews 2010

Participants were asked what their reaction was the last time they saw a sniffer dog and had drugs on them. One third of the group (34%) reported this had not happened to them over the past six months. Two-fifths (46%) reportedly 'kept going about their business', although several REU commented that they were extremely nervous. Seven participants reported having consumed their drugs and four reported putting the drugs in their mouths but not swallowing them. Three participants reportedly threw away their drugs.

Six participants reported they had been searched by police due to a positive notification from a sniffer dog. In five of these cases, police did not discover any drugs during their search and the person was released. Drugs were found and an arrest was made in one instance.

9 SPECIAL TOPICS OF INTEREST

Summary:

- More than two-thirds of participants had consumed energy drinks mixed with alcohol over the preceding six months.
- Three-quarters of those who had recently consumed energy drinks had done so when they were under the influence of another drug. The drugs most commonly reported were ecstasy (64%), cannabis (30%) and cocaine (22%).
- The average body mass index (BMI) was 22.4 (range 17.1-32.3). One-fifth of the sample fell into the 'overweight' category, and two participants were classified as 'obese'.
- Three-fifths of the sample had not been tested for STI over the preceding two years. The most common reason cited was that they 'had not thought about it'.
- Half of the women in the sample had undergone pap smear testing over the past two years.

9.1 Energy drinks, ecstasy and alcohol

Caffeinated energy drinks came onto the world market in 1997 with the introduction of Red Bull. The drinks are marketed at the 18-35 age group claiming to deliver a jolt of energy, through the combination of stimulant ingredients primarily caffeine, herbal extracts (such as guarana, and ginseng) and amino acids (such as taurine). Sugar or artificial flavouring is added for taste as caffeine is a bitter ingredient.

Research suggests energy drinks do deliver on their promise of more 'energy' with the strongest energising effects being 30 to 60 minutes after consumption and lasting at least 90 minutes. However, while caffeine in smaller doses has been shown to improve cognitive performance and mood (Beyrer, et al., 2004), it can also have detrimental health consequences. Acute caffeine consumption reduces insulin sensitivity (Kalyoncu, Tan, Mirsal, Pektas, & Beyazyurek, 2005) and increases mean arterial blood pressure (Bichler, Swenson, & Harris, 2006). High caffeine consumption is associated with chronic daily headaches, particularly in women aged less than 40 years, and has been known to be associated with central nervous system dysfunction, cardiovascular, gastrointestinal and renal dysfunction (Carillo & Benitez, 2000). Caffeine intake more generally can promote diuresis[25] and natriuresis[26] (Riesenhuber, Boehm, Posch, & Aufricht, 2006). Daily caffeine intake remains safe at under 600mg per day, however, doctors recommend during times of stress, anxiety or pregnancy that caffeine intake be limited to less than 200mg per day. Energy drinks on average can now contain between 80-160mg per serving.

Of particular concern is the recently reported 'partying practice' of mixing energy drinks with alcohol and/ or other substances such as ecstasy or prescribed medications such as stilnox or benzodiazepines. The aim of this mixing is to enhance the 'high' associated with these substances. Some studies suggest that consumers believe that energy drinks will reduce the fatigue, cognitive and motor impairments of alcohol. As a result, they may be more likely to

[25] *Diuresis* is the increased production of urine by the kidney.
[26] *Natriuresis* is the process of excretion of sodium in the urine via action of the kidneys.

engage in risky behaviours such as operating a car or a motorcycle, in the erroneous belief that they are alert (2004b; Ferreira, Mello, & Souza-Formigoni, 2004a).

Despite the negative consequences of consuming energy drinks in combination with other substances, there has been little research on the topic to date. Thus, from 2010, the EDRS included questions examining the use of energy drinks (e.g. 'V' and 'Red Bull') in the context of alcohol and/or ecstasy and other illicit substance use. More than two-thirds (69%) of participants had consumed energy drinks mixed with alcohol over the preceding six months. On their last occasion, respondents had consumed a median of 2 (range 1-11) energy drinks mixed with alcohol. Participants were asked how the energy drink/alcohol mixed beverages affected their energy levels and alertness/concentration on the last occasion of use. Fairly equal proportions reported that the beverages made them 'feel more alert and less tired' (54%) and that they 'made no difference' (46%). The most common reasons for choosing an energy drink as a mixer with alcohol were:

- I like the taste(28%);
- I was feeling tired (22%);
- Energy drinks help me party for longer (17%); and
- It was bought for me/freely available (17%).

Respondents were also asked whether they had consumed energy drinks during the same episode as using other drugs. Three-quarters of those who had recently consumed energy drinks had done so when they were under the influence of another drug. The drugs most commonly reported were ecstasy (64%), cannabis (30%) and cocaine (22%). Smaller proportions reported having used energy drinks after having used other drugs such as LSD (15%), speed (13%), ketamine (7%), GHB (4%), base (3%) and crystal (3%). One participant each reported having used energy drinks after taking amyl nitrite, benzodiazepines, antidepressants, mephedrone and mushrooms.

It was very common for participants who had used energy drinks with other substances to have mixed alcohol with their energy drinks on these occasions. In fact, among those who had used energy drinks with another substance, more than half (53%) mixed them with alcohol all or most of the time, 22% some of the time, 12% a little of the time and 14% none of the time.

Participants who had recently used energy drinks were asked whether they had experienced any negative effects associated with their use of these beverage under three conditions: 1) when mixed with alcohol alone; 2) when mixed with ecstasy alone; and 3) when mixed with alcohol and ecstasy. Half of the group had experienced at least one negative effect in one of these conditions (49%).

Over one-quarter of the sample reported at least one negative effect associated with mixing energy drinks and alcohol. Those most commonly reported were vomiting (n=9), heart palpitations (n=8) and headaches (n=7). Four participants reported at least one negative effect associated with mixing energy drinks and ecstasy and again, vomiting was that most commonly reported (n=2). Thirteen participants reported at least one negative effect associated with mixing energy drinks, alcohol and ecstasy. Headaches (n=5) and heart palpitations (n=4) were those most commonly reported (Table 35).

Table 35: Negative effects associated with the use of energy drinks, NSW 2010

Symptoms	Alcohol + ED* (n=28)	Ecstasy + ED* (n=4)	Alcohol + Ecstasy +ED* (n=13)
Vomiting (n)	9	2	1
Heart Palpitations (n)	8	1	4
Headaches (n)	7	1	5
On edge (n)	6	1	2
Nausea (n)	4	1	2
Heartburn (n)	4	1	-
Stressed out (n)	3	-	1

Source: EDRS Regular ecstasy user interviews, 2010
* Energy drinks

Participants were also asked about their use of energy drinks when not partying. Just over half the sample reported that they had consumed energy drinks outside the party scene in the past six months. Among these, approximately one-quarter (26%) reported having consumed energy drinks multiple times per week, 10% had done so on a weekly basis, 18% on a fortnightly basis, 20% monthly and 28% less than monthly. Respondents had consumed a median of 1 can (range 1-4) the last time they had consumed energy drinks.

9.2 Body Mass Index (BMI)

For the first time in 2010 participants were asked their height and weight. With this information BMI was calculated. The body mass index (BMI) is a tool used by health professional to help determine whether a person is a healthy weight, since it correlates strongly with total body fat content.

Eating disorders and drug use disorders are significant public health problems. However, epidemiological research examining their associations yields ambiguous results. Evidence of a relationship between obesity and alcohol use has been found (Wannamethee, Shaper, & Whincup, 2005). Studies have also found a relationship between weight at smoking. Overweight and obese men, but not women, were more likely to be former daily smokers than non-smokers (Zimlichman, et al., 2005). In a nationally representative sample, being overweight, obese and extremely obese were associated with lower risk for past-year nicotine dependence in men but not in women (Pickering, Grant, Chou, & Compton, 2007).

The relationship, if any, between body mass index (BMI) and illicit drug use disorders is unclear. For instance, Rajs, Petersson et al. (2004) found there was a similar prevalence of being overweight among individuals with illicit drug use disorders as that found in the general population. However, in a more recent study, Barry and Petry (2009) found both positive and negative associations of BMI with various substance use disorders, and significant gender differences in those relationships. Finally, BMI and drug use are both associated with mental health problems (Kemp, et al., 2009).

Thus, in 2010 the EDRS attempted to address the relationship between BMI, drug use and the risk of disease. BMI was calculated from height and weight information, using the formula weight (kg) divided by the square of height (m). BMI was divided into 4 groups[27]:

(1) 'underweight' (< 18.5 kg/m^2);
(2) 'healthy weight' (18.5 to < 25.0 kg/m^2);
(3) 'overweight' (25.0 to <30.0 kg/m^2; and
(4) 'obese' (≥30.0 kg/m^2).

The average height of participants was 1.75m (range 1.55-1.96m) and the average weight was 70 kg (range 47-105kg). The average body mass index (BMI) was 22.4 (range 17.1-32.3). Six participants were classified as 'underweight'; more than two-thirds (70%) fell into the 'healthy' category; one-fifth (22%) fell into the 'overweight' category; and two participants were classified as 'obese'.

Table 36: BMI among REU, NSW, 2010

BMI category (%)	**Males (%) (n=74)**	**Females (%) (n=26)**	**Total (%) (N=100)**
Underweight	4	12	6
Healthy	65	83	70
Overweight	28	4	22
Obese	3	-	2

Source: EDRS Regular ecstasy user interviews, 2010

9.3 Sexual health

Population studies have shown that younger age groups had engaged in sexual relationships with more partners in their lifetime than older age groups (Johnson, et al., 2001). Amongst the REU sample participants of a younger age have been found to be more likely to engage in risky behaviours (Cogger & Kinner, 2008). Furthermore, studies have shown that younger individuals who frequent night clubs are likely to report multiple sexual partners and a higher incidence of STI (Wells, Kelly, Golub, Grov, & Parsons, 2010).

In Australia, approximately 10% of young women and 3% of young men (aged under 30 years) report having been tested for Chlamydia (Kong, Hocking, Link, Chen, & Hellard, in press). The issues surrounding sexual health prompted questions to be developed for the EDRS survey to investigate reasons why or why not participants choose to have STI screening. The responses to these questions were formulated by considering results of previous research (Balfe & Brugha, 2009; Dixon-Woods, et al., 2001; Tilson, et al., 2004).

The results of these investigations are presented in Table 37. Only two-fifths of the sample had been tested for STI over the preceding two years. Among those who had not been tested, the main reason cited was that they had not thought about it (46%). Among those who had been

[27] BMI values are taken from those reported by the World Health Organization (WHO, http://apps.who.int/bmi/index.jsp?introPage=intro_3.html).

tested (n=43), the majority reported that had been tested to ensure they were clear of infection after having had unprotected sex (35%). Another important reason for testing was the end of a relationship or the beginning of a new one with 42% of recent testers having been last tested for one of these reasons.

Table 37: Sexual Health Testing among REU, NSW, 2010

	n=99 (%)
Tested for a sexually transmitted infection (STI) last two years?	
No, don't think about it	46
No, I didn't want to be tested	2
No, another reason	9
Yes, I was tested by means of a blood test, urine sample or swab	43
Reason for test (%)*	
Clear of infection after relationship	26
Clear of infection before new relationship	16
Unprotected sex	35
Symptoms of infection	5
Health provider suggested	14
Friend suggested	5
Partner suggested	5
Partner had symptoms	-
Ex-partner told me to get tested	2
Access to clinic was easy	9
Routine/general check up	5
Other	26
Place last tested for STI*	
GP	61
Sexual Health Clinic	23
Hospital	5
Other	12

Source: EDRS Regular ecstasy user interviews, 2010

* Among those who were tested for a sexually transmitted infections in the last 2 years

Half of the women in the sample had undergone pap smear testing over the past two years (Table 38). Among those who had not been tested recently, the main reasons cited were that they had not thought about it (31%) or they were embarrassed or uncomfortable with the procedure (23%). Among those who had been tested, the main reasons were either that they knew they were due for a test (54%) or their health care provider suggested it (39%). The vast majority (77%) were tested by a GP.

Table 38: Pap smear testing among REU, NSW, 2010

	n=26 (%)
Had a pap smear test last two years**	50
Reasons for no pap smear test last two years#**	
Wasn't sexually active	-
No symptoms	15
Don't like them	8
Didn't think of it	31
Embarrassed/uncomfortable	23
Financial cost	8
Other	23
Reasons for having a pap smear test##**	
Symptoms	8
Reminder letters	-
Health provider suggested	39
Friend suggested	-
Partner suggested	-
Due for a test	54
Family history of cervical cancer	8
Other	-
Place last tested for STI	
GP	77
Sexual Health Clinic	23
Hospital	-
Other	-

Source: EDRS Regular ecstasy user interviews, 2010
** Among females only
# Among those who had not had a pap smear test in the last 2 years
Among those who had a pap smear test in the last 2 years

9.4 Ecstasy dependence

In 2010, participants were asked questions regarding dependence on ecstasy. For further information, please contact: Dr Raimondo Bruno (raimondo.bruno@utas.edu.au).

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