

Fabian Kong, Paul Dietze & Paul McElwee

**VICTORIAN TRENDS IN ECSTASY AND RELATED  
DRUG MARKETS 2009**

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

Australian Drug Trends Series No. 49

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**Fabian Kong, Paul Dietze & Paul McElwee**

**The Macfarlane Burnet Institute for Medical Research and Public Health  
Ltd and Turning Point Alcohol and Drug Centre Inc**

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## ABBREVIATIONS

1,4B	1,4-butanediol
2CB/2CI	4-bromo-2, 5-dimethoxyphenethylamine
ACC	Australian Crime Commission
ADIS	Alcohol and Drug Information Service
AGDH&A	Australian Government Department of Health and Ageing
AIHW	Australian Institute of Health and Welfare
AQFV	Alcohol Quantity, Frequency and Variability
ATSI	Aboriginal and Torres Strait Islander
AUDIT	Alcohol Use Disorders Identification Test
BAC	Blood alcohol concentration
BBVI	Blood-borne viral infection(s)
BZD	Benzodiazepine(s)
CNS	Central nervous system
DHS	Department of Human Services, Victorian Government
DMT	Dimethyltryptamine
DXM	Dextromethorphan
EDRS	Ecstasy and related Drugs Reporting System
ERD	Ecstasy and related drugs
GP	General practitioner(s)
GHB	Gamma-hydroxy-butyrate
HBV	Hepatitis B virus
HCV	Hepatitis C virus
HIV	Human immunodeficiency virus
IDRS	Illicit Drug Reporting System
IDU	Injecting drug user(s)
K10	Kessler Psychological Distress Scale (10-item)
KE	Key expert(s)
LSD	<i>d</i> -lysergic acid
MAS	Metropolitan Ambulance Service (Melbourne)
MDA	3,4-methylenedioxyamphetamine
MDMA	3,4-methylenedioxymethamphetamine (ecstasy)
MSM	Dimethyl sulphone
NDARC	National Drug and Alcohol Research Centre
NDLERF	National Drug Law Enforcement Research Fund
NDSHS	National Drug Strategy Household Survey
NHMD	National Hospital Morbidity Database

NHMRC	National Health and Medical Research Council
NSP	Needle syringe program(s)
NSW	New South Wales
PADD	Passive Alert Drug Detection (dog/s)
PASW	Predictive Analytics Software
PDI	Party Drug Initiative
PGSI	Problem Gambling Severity Index
PMA	Paramethoxyamphetamine
PWI	Personal Wellbeing Index
REU	Regular Ecstasy User(s)
SDS	Severity Dependence Scale
STI	Sexually Transmitted Infection(s)
SPSS	Statistical Package for the Social Sciences
THC	Tetrahydrocannabinol
VYADS	Victorian Youth Alcohol and Drug Survey
WHO	World Health Organization

## EXECUTIVE SUMMARY

This report presents the results from the seventh year of a study monitoring ecstasy and related drug (ERD) trends in Victoria. A feasibility trial of this research was conducted in 2000 and 2001 in New South Wales, Queensland and South Australia, and in 2002 the study was continued in those jurisdictions. 2003 marked the first year of a two-year national trial of the study, with the addition of capital cities in Western Australia, the Northern Territory, the Australian Capital Territory, Tasmania and Victoria.

The demographic characteristics, patterns of drug use and perceptions of the price, purity and availability of ERD among a sample of regular ecstasy users (REU) are described in this report. Their perceptions of the effects of drug use (e.g. benefits and risks), personal wellbeing, health risk behaviours and criminal behaviour are also reported. These findings are triangulated with information from key expert (KE) and secondary indicator data sources in an attempt to minimise biases and weaknesses inherent to each source of data. These methods are employed to gain an understanding of the current ERD markets in Melbourne, Victoria. Where appropriate, 2009 findings are compared to findings from the previous years and implications of the results and the nature and characteristics of ERD markets are discussed.

### Demographic characteristics of REU

The REU sample was comprised of people who were typically aged between 18 and 25 years, tended to be well educated, employed and reported living either in rental accommodation or in the family home. They were unlikely to report being involved in either the treatment or justice systems. The sample demographics remained largely comparable to previous years. However, in comparison to 2008, in 2009 there were significantly more males (67% vs 53%) and slightly more were unemployed (16% vs 8%).

### Patterns of drug use among REU

In addition to ecstasy, most REU reported having recently used alcohol, tobacco, cannabis and speed. Compared to 2008, there was a significant increase in the recent use of “designer drugs” (e.g. 2CB, DMT, Mephedrone) (12% vs 2%), amyl nitrite (41% vs 16%), LSD (46% vs 29%), benzodiazepines (53% vs 38%), and tobacco (86% vs 75%) in 2009. Notably, Victorian REU reported benzodiazepine (illicit or licit) use more frequently than the national sample (53% vs 27% nationally). The reports of Khat (*Cathu edulis*) use among REU from 2008 were not evident in 2009.

Around 40% of the 2009 REU sample reported recently bingeing (defined as continuous use of drugs for more than 48 hours) on drugs, most commonly using ecstasy, speed, alcohol and cannabis during binge periods. This percentage was similar to 2008.

### *Ecstasy*

As in previous years, the 2009 REU sample reported first using ecstasy regularly at the age of 19 years, typically swallowing two to four pills on a fortnightly basis. Approximately half the participants reported using more than two pills in a typical session. Most REU reported using ecstasy with other drugs: tobacco (70%); more than five standard drinks of alcohol per session (67%); and cannabis (45%). Patterns of use were similar for ecstasy *capsules* with significantly more REU reporting having used capsules in the last six months in 2009 compared to 2008. REU reported taking ecstasy in a range of locations, most commonly nightclubs and private parties.

Market characteristics were comparable to previous years with REU reporting typically purchasing one ecstasy pill for \$25. Seized ecstasy had an average purity of 25%. However, REU reported that ecstasy was significantly more difficult to source with 24% (vs 3% in 2008) reporting it was “difficult or very difficult” to currently obtain ecstasy, possibly a result of recent police seizures of the drug. The apparent reduction in ecstasy availability may have underpinned the higher prevalence in the use of other drugs (see below). However, the reported source of

ecstasy remained the same, with REU predominantly sourcing from friends or known dealers in private residences and nightclubs.

### ***Methamphetamine***

In 2009, the reported use of amphetamine (all forms) continued to decrease to its lowest levels since 2003, with 72% of REU reporting use of any form of amphetamine in the last six months (compared to 98% in 2003 and 77% in 2008). Of the three forms of methamphetamine, speed was the most widely reported as being used by REU (72%), followed by crystal meth (13%), and then base (7%). REU reported typically snorting half a gram of speed on a monthly basis during a typical and heavy session, with a decrease in the amount used in a heavy session reported in 2009 (half a gram vs one gram in 2008). The market characteristics of speed remained consistent with previous years with a reported median price of \$190 per gram and speed was reported as being relatively easy to obtain. However, the mean purity of seized samples declined to its lowest level (13%) since 2003. Methamphetamine's relatively high cost compared to other drugs and seemingly low purity may partially explain the decline in its use. Methamphetamines were reportedly used in a variety of locations, predominantly private homes and was sourced from friends or known dealers.

### ***Cocaine***

Nearly half of REU reported having recently used cocaine infrequently (typically involving snorting) in a variety of locations, including private homes and nightclubs.

Perhaps contributing to the relatively low frequency of recent use, the REU reported that cocaine remains an expensive drug (\$300 per gram), but is relatively easy to obtain. The purity of seized cocaine was comparable to previous years (44%). Cocaine was reported as being commonly purchased from friends and known dealers in private homes.

### ***Ketamine***

Reports from the 2009 Victorian REU and KE reflect decreasing levels of both lifetime and recent ketamine use among REU since 2003, although they were comparable to more recent years. Those reporting recent ketamine use (21%) typically reported infrequent use that involved snorting of the drug in private homes and nightclubs.

### ***GHB***

Despite the low prevalence in recent GHB use (10%) among the REU sample in 2009 (thereby creating difficulty in interpreting data due to the small numbers able to comment on its use), there was much attention on GHB due to a spike in GHB-related overdoses and subsequent media coverage in the preceding summer period.

KE reported the rise in GHB-related overdoses were associated with naïve users with little knowledge about mixing GHB with alcohol. Complicating this issue was that purchased GHB was often not actually GHB but its precursor chemicals 1,4 Butanediol and gamma-Butyrolactone, which both have a longer time period before the onset of effects compared to GHB. It is notable that in 2009 Victorian Police had seized actual GHB, a drug that had not been detected in recent years.

GHB use within the non-REU population may have been associated with its relatively cheap price (\$4 per mL) and easy availability, especially in a year where the availability of ecstasy was significantly lower.

### ***LSD***

Reports of recent use of LSD among the REU sample were more frequent in 2009 compared to 2008 (46% vs 29%), although the reported frequency of use was low (once every three months). LSD was reported as relatively cheap (\$17 per tablet) to purchase but significantly more difficult to obtain in 2009 compared to 2008. Purity was reported by REU as medium to high. A small number of the 2009 sample reported the use of LSD liquid "drops" as opposed to tablets. REU

typically reported LSD use by swallowing in a range of locations, predominantly in outdoor events.

### ***MDA***

Consistent with previous years, few REU (two participants) reported recently using MDA, making interpretations on trends in the price, purity and availability difficult.

### ***Cannabis***

As with previous years, cannabis was reportedly the most commonly used illicit drug after ecstasy, with 85% of REU reporting recent use. Recent users reported smoking cannabis relatively frequently (weekly) and commonly when coming down from ecstasy. Reported cannabis prices were consistent with previous years and similar for the stronger hydroponic form and weaker potency bush cannabis (\$250 and \$200 per ounce for hydroponic and bush respectively). Reported availability, however, was significantly lower in 2009 compared to 2008, possibly as a result of recent police seizures. Cannabis was reported to be commonly purchased from friends and known dealers in private homes.

### ***Alcohol***

The REU sample reported almost universal lifetime and recent use of alcohol, initiating drinking at the very young age of 14 years; younger than 17 years of age typically reported in the general population. There was a high prevalence of reported alcohol use in conjunction with ecstasy (84%) with a significantly higher proportion of recent drug “bingers” in 2009 (compared to 2008) reporting consuming alcohol. However, fewer participants drank alcohol while coming down from ecstasy, possibly due frequent use during binge sessions. Indeed, the 2009 and 2008 findings showed very high levels of risky drinking among REU, at levels which may cause acute and/or long-term harms.

Most KE rated alcohol as the most problematic drug due to the rise in alcohol-related violence, risks and harms (e.g. overdoses when combined with GHB).

### ***Patterns of other drug use***

Comparable to 2008, the prevalence of the reported recent use of other drugs remained low for mushrooms (27%), heroin (16%), pharmaceutical stimulants (illicit,14%) and other opiates (7%).

### **Drug information-seeking behaviour**

The 2009 REU participants were asked about their use of methods to determine the content and purity of ecstasy pills and what they suspected the ecstasy tablet also contained.

Compared to 2008, a significantly higher proportion of the 2009 REU sample reported always finding out the content/purity of ecstasy (47% vs 14%) with a significantly smaller proportion using testing kits to do so (12% vs 24%), relying more on friends or dealers to gather information about ecstasy purity/content, with suspected adulterants often reported as methamphetamines or ketamine.

### **Health and other issues**

A range of potential harms and behaviours associated with ERD use was examined as part of the EDRS, including participants’ reported experience of overdose, use of drug-related treatment services, psychological distress and also other non-health problems associated with ERD use.

Recent overdose was reported by only a small proportion of REU in 2009, though rates of overdose resulting from use of depressant drugs (mainly alcohol) were higher than those for stimulant substances, with 64% of depressant overdoses receiving no specific treatment.

Compared to the 2007 National Drug Strategy Household Survey (NDSHS), a significantly higher percentage of REU reported moderate to high distress (65% vs 29%) on the Kessler-10, a measure of psychological distress. Additionally, using the Personal Wellbeing Index (which measures participants’ levels of satisfaction with seven aspects of their personal life) REU were

less satisfied with their standard of living, health, life achievements and life as a whole compared to the Australian population of comparable age.

Few (17%) of the REU sample reported accessing health and treatment services for their ERD use with general practitioners most commonly reported as being accessed by REU.

Reports from the 2009 REU sample suggest that moderate levels of non-health related problems were experienced by REU as a result of their drug use. Nearly forty percent of the participants reported that ERD use interfered with responsibilities at work, home or school, while similar proportions (34%) reported experiencing problems involving harm to themselves or others or having relationship/social problems (26%) associated with ERD use in the six months. Only 4% reported having recent drug-related legal problems. The main drug reported by REU as responsible for these problems was alcohol followed by ecstasy.

### **Risk behaviour**

Consistent with previous years, recent injecting drug use by REU was rare (seven participants). The recent sharing of needles was not reported and only one participant reported using a tourniquet after someone else.

The majority (82%) of the REU sample reported that they were sexually active, but only 53% reported always using condom with recent casual partners. Unsurprisingly, this group tended to report having sex while under the influence of drugs, mainly alcohol, ecstasy or cannabis.

Reports of risky driving practices among the REU sample were concerning: 60% reported having recently driven soon after (i.e. within one hour) taking an illicit drug and 58% reporting having driven over the legal limit of alcohol. Those reporting driving after using illicit drugs indicated most commonly that they did so following the use of cannabis, ecstasy and/or speed. Respondents were asked how impaired they felt the last time they drove soon after taking a drug, with 75% reporting that they felt only slightly or not at all impaired.

Problem gambling and aggression levels were also measured in 2009. Problem gambling was uncommon among REU with only three participants being classified as a problem gambler using the Problem Gambling Severity Index. Using the Buss-Perry Aggression Questionnaire – Short Form, REU provided intermediate scores across measures and were more likely to report being verbally aggressive than physically aggressive. Alcohol was commonly reported as the drug associated with increased aggression levels by REU.

### **Criminal activity, policing and market changes**

Compared to 2008, a significantly higher number of participants in 2009 reported past-year arrest (12 vs 3). Over one-third of the 2009 REU sample, however, had been involved in drug dealing in the month prior to interview.

Compared to 2008, there was a significantly higher percentage of REU reporting increased police activity in the six months prior to interview (46% vs 29%). Despite such perceived changes, 76% reported that police activity had not made it more difficult to obtain ERD in the last six months.

### **Conclusions**

The results reported here describe trends in the use of ERD in Melbourne, Victoria, and provide comparisons with the findings of the 2003 to 2008 studies. Many characteristics of ERD use reported in the previous Victorian and national reports (e.g. Stafford et al., 2008) were comparable to those of the current study, which suggests a level of stability in this illicit market. The notable changes in 2009 centred on the reduced availability of ecstasy and cannabis and the apparent consequent increase use of other drugs (amyl, “designer hallucinogenic drugs”, LSD and possibly GHB). Nevertheless, these changes had no impact on the ongoing decline in the use of amphetamines seen in recent years.

GHB and alcohol were most commonly associated with drug related harms. This is consistent with the recent spike noted in the frequency of GHB related overdoses (and media coverage) in

the summer of 2008/2009 and the early initiation and high volumes of alcohol consumption by Victorian REU. These health concerns are further compounded by the poor risk discrimination skills of REU – inconsistent and low condom use, driving under the influence of drugs and alcohol, and low rates of health seeking behaviour. It is perhaps not surprising then that significant proportions of REU reported moderate to high psychological distress levels and lower satisfaction with some aspects of their lives compared to Australians of comparable age.

## **Implications**

This seventh consecutive year of the Victorian EDRS study has provided further indication of the patterns and characteristics of ERD use and related consequences in Melbourne. Patterns of polydrug use, binge drug use, the frequency and locations where some drugs are reportedly used, and the availability of many drugs, have shown a degree of consistency across the seven years of data collection. Other characteristics, such as the reduced prevalence of recent amphetamine use and increased use of alcohol at potentially harmful levels evident in recent years warrant further exploration. The EDRS has also provided unique information on a range of issues of relevance to ERD-using populations, such as drug-driving behaviour and personal wellbeing .

With increasing community interest in the patterns and characteristics of ERD use, the Victorian EDRS represents a key knowledge base from which to further explore these local markets. The primary aim of the national EDRS is to provide a “snapshot” of the characteristics of regular ecstasy use in Australia. Although the data collection methods described in this report have limitations, the findings provide information that can be used to inform other research with the capacity to target emergent questions relating to regular ecstasy use (see below).

The findings of the 2009 Victorian EDRS suggest the following recommendations:

1. further investigation of polydrug use by REU, its associated harms, and explorations of harm-reduction strategies used by REU with a focus on alcohol and GHB;
2. examination of the locations of ERD use to develop and implement strategies for distributing harm-reduction messages to users consuming ERD in settings other than raves, e.g. private homes;
3. further exploration of problems relating to work/study and relationship/social outcomes to provide a better understanding of the harms associated with regular ecstasy use;
4. exploration of treatment utilisation among users for ERD use and any barriers preventing access to such treatment;
5. targeted research examining the high levels of drug- and drink-driving reported by participants, in addition to analysis of attitudes towards current roadside drug-testing;
6. despite low reported rates of ERD overdoses, examination of the circumstances of such overdoses with the intention of discerning optimal treatment and prevention options; and
7. further research into the reasons influencing REU’s choice of drug and consequent initiation and cessation.

# 1 INTRODUCTION

The Illicit Drug Reporting System (IDRS) is an annual study funded by the Australian Government Department of Health and Ageing (AGDH&A). It has been conducted on an annual basis in New South Wales (NSW) since 1996, Victoria since 1997 and in all states and territories of Australia since 1999.

The IDRS aims to provide a reliable method of monitoring emerging jurisdictional trends in the price, purity, availability and use of opiates, cannabis, cocaine, amphetamines and other drugs. It is intended to serve as a strategic early warning system, identifying emerging trends of local and national concern in various illicit drug markets. The IDRS is designed to be sensitive to such trends, providing data in a timely fashion, rather than to describe phenomena in detail. The drug trends information obtained from this study is intended to inform health and law enforcement sector policy and program responses to illicit drugs, as well as to identify areas and issues requiring further investigation (Darke, Hall & Topp, 2000; Topp et al., 2002).

The IDRS data collection consists of three components: interviews with illicit drug users; key expert (KE) interviews with individuals who work with illicit drug users; and the collection of secondary indicator data sources (such as surveys of drug use in the general population, data on drug seizures, arrest data, hospital accident and emergency data, etc.). These three data sources are triangulated against each other in order to minimise the biases and weaknesses inherent in each one.

The IDRS, however, has historically not provided clear data on party drug use trends. This is because the sentinel group chosen for study purposes has been injecting drug users (IDU) recruited mostly through needle and syringe programs (NSP). The majority of these IDU have been primary heroin users whose polydrug use extended to other opiates and central nervous system (CNS) depressants, but not to ecstasy and related drugs (ERD) to the same extent (Breen et al., 2004; Breen, Topp & Longo, 2002).

Given the significant demonstrated potential for health and other harms associated with ERD misuse (Vincent et al., 1998; Williamson et al., 1997; Deehan & Saville, 2003; Degenhardt & Topp, 2003; Topp et al., 1999), there is an imperative for broadening existing drug trend monitoring systems to facilitate a more sensitive mechanism for detecting trends in this area. The greatest opportunity for achieving this is by extending current monitoring methods to new sentinel groups and settings. With increasing community interest in the patterns and characteristics of ERD, the Victorian Ecstasy and Related Drug Reporting System (EDRS) represents a timely move to gather information about these local markets.<sup>1</sup>

In 2000, the National Drug Law Enforcement Research Fund (NDLERF) funded a two-year, two-state trial of the feasibility of monitoring emerging trends in ecstasy and other related drug markets using the extant IDRS methodology. For the purposes of the study, the term “ecstasy and related drugs” is considered to include drugs that are routinely used in the context of entertainment venues such as nightclubs or dance parties. In addition to ecstasy (3,4-methylenedioxymethamphetamine (MDMA)), this includes drugs such as methamphetamine, cocaine, LSD, ketamine, MDA (3,4-methylenedioxyamphetamine) and GHB (gamma-hydroxybutyrate).<sup>2</sup> The findings of the two-year trial (Breen, Topp & Longo, 2002) are reported elsewhere.

The sentinel population examined in this report are Regular Ecstasy Users (REU). The findings in this report provide a summary of trends in ERD use detected in Melbourne, Victoria, in 2009

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<sup>1</sup> See the Drugs & Crime Prevention Committee’s discussion paper “Inquiry into amphetamine and ‘party drug’ use in Victoria” as a good source for further reading.

<sup>2</sup> For further information about these and other party drugs, see: [www.adf.org.au](http://www.adf.org.au); [www.bluelight.nu](http://www.bluelight.nu); [www.erwid.org](http://www.erwid.org).



through the conduct of the seventh year of the study, formerly known as the Party Drug Initiative (PDI). Comparisons are also made between results reported in the 2003 to 2008 studies. The trends described in this report have been extrapolated from the three data sources: interviews with current REU, interviews with individuals who have contact with ecstasy users through their work, and the collation of indicator data. As with the core IDRS, the data sources are triangulated in order to minimise the biases and weaknesses inherent to each. Consistency between the main IDRS and the EDRS was maintained where possible, as the IDRS has demonstrated success as a monitoring system (Shand et al., 2003; Topp et al., 2003; Topp et al., 2002). Consequently, the focus is on Melbourne, as new trends in illicit drug markets are more likely to initially emerge in large cities rather than regional centres or rural areas.

## **1.1 Study aims**

The overall aim of the 2009 Victorian EDRS was to extend to a seventh year the routine monitoring of key ERD market indicators in Melbourne. The specific aims of the study were to:

1. describe the characteristics of a sample of current ecstasy users interviewed in Melbourne;
2. examine the patterns of ERD use of this sample;
3. document the current market characteristics (i.e. price, purity and availability) of ERD in Melbourne;
4. examine participants' perceptions of the incidence and nature of ERD-related harm, including physical, psychological, occupational, social and legal harms;
5. identify emerging trends in the ERD market that may require further investigation;
6. examine levels of participants' involvement in criminal behaviours and perceptions of recent police activity towards ERD users; and
7. where appropriate, provide a comparison of 2009 findings with those reported in the 2003, 2004 and 2005 PDI reports, and the 2006-2008 EDRS reports.

## 2 METHOD

The 2009 EDRS used the methodology trialled in the feasibility study (Breen, Topp & Longo, 2002) to monitor trends in the markets for ERD, and replicate the methods used in the 2003-2008 studies. The three main sources of information used to document trends were:

1. face-to-face interviews with current REU;
2. telephone and face-to-face interviews with KE who, through their work, have regular contact with ecstasy users in Melbourne; and
3. indicator data sources such as ERD drug treatment episodes, the purity of seizures of ecstasy analysed in Victoria, and prevalence of use data drawn from the National Drug Strategy Household Surveys (NDSHS).

These three data sources were triangulated, so that different data sources were used to validate each other and provide a more reliable indication of emerging trends in drug use and party drug markets.

### 2.1 Survey of REU

As described above, a range of drugs are included in the category of ERD. The sentinel population chosen to monitor trends in ERD markets consisted of people who reported regular use of tablets sold as “ecstasy”. This population was chosen for a number of reasons: ecstasy 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 Australian population aged 14 years and older estimated to have used it in the last 12 months (Australian Institute of Health and Welfare (AIHW), 2008).

Further, a sample of this population was successfully recruited and interviewed for both the two-year feasibility trial (2000-2001) in NSW, Queensland (QLD) and South Australia (SA) as well as the subsequent implementation of the PDI in 2002 in these jurisdictions. The findings from these studies provide further evidence of the central role of ecstasy to the various party drug markets of Australia (White, Breen & Degenhardt, 2003). Therefore, REU, who were used in the 2003-2008 PDI/EDRS studies, have again been used in the 2009 study to provide information on ERD markets.

For the purpose of this study, ‘regular ecstasy use’ was defined as the use of ecstasy at least once a month for the previous six months. Participants were also required to be at least 18 years of age and have resided in the Melbourne metropolitan area for the 12 months prior to the interview.

#### 2.1.1 Recruitment

A total of 100 REU were interviewed for the Victorian 2009 EDRS. All of the participants resided in the Melbourne metropolitan region and were recruited through a purposive sampling strategy (Kerlinger, 1986). This strategy included advertisements in entertainment street press and online forums, 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 (Solowij, Hall & Lee, 1992; Ovendon & Loxley, 1996; Boys, Lenton & Norcross, 1997) and international studies (Dalgarno & Shewan, 1996; Forsyth, 1996; Peters, Davies & Richardson, 1997). Accordingly, on completion of their interviews, participants were asked if they would be willing to discuss the study with friends who might be willing and able to participate. Snowballing is also routinely employed as a recruitment method in the IDRS (Jenkinson & Quinn, 2007).

#### 2.1.2 Procedure

Participants contacted the researchers by telephone or via email and were screened for eligibility. To meet entry criteria, they had to be at least 18 years of age, have used ecstasy at least once a

month for the last six months, and have been a resident of the Melbourne metropolitan region for the past 12 months. As in the main IDRS, the focus was on the capital city, since new trends in illicit drug markets are more likely to emerge in urban areas 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 60 minutes. All respondents were volunteers who were reimbursed \$40 for their participation. All interviews were undertaken at the Burnet Institute or at an agreed public meeting space and were conducted by trained researchers using a standardised interview schedule. The nature and purpose of the study was explained to participants before informed consent was obtained. Ethics approval for this study was obtained from the Alfred Hospital Human Research Ethics Committee.

### **2.1.3 Measures**

Participants were administered a structured interview schedule based on a national study of ecstasy users conducted by the National Drug and Alcohol Research Centre (NDARC) in 1997 (Topp et al., 1998; Topp et al., 1999), which incorporated items from previous NDARC studies of users of ecstasy (Solowij et al., 1992) and powder meth/amphetamine (Hando & Hall, 1993; Darke et al., 1994; Hando, Topp & Hall, 1997). The interview schedule focused primarily on the preceding six months (recent use), and assessed demographic characteristics; patterns of ecstasy and other drug use, including frequency and quantity of use and routes of administration; the price, purity and availability of ERD; patterns of ecstasy purchasing; self-reported criminal activity; perceived physical and psychological side-effects of ecstasy; other ecstasy-related problems, including relationship, financial, legal and occupational problems; help-seeking behaviour; and general trends in party drug markets, such as new drug types, new drug users and perceptions of police activity.

### **2.1.4 Data analysis**

Descriptive analyses were conducted using PASW for Windows Version 17.02 (previously known as Statistical Package for the Social Sciences or SPSS). For selected key variables, chi square tests were used to determine the significance of difference between 2009 and 2008 with a statistically significant difference defined as  $p < 0.05$ .

## **2.2 Survey of KE**

The criterion for KE eligibility was regular contact (at least weekly contact and/or had contact with 10 or more ecstasy users in the last six months) or significant knowledge of, in the course of employment, users of ecstasy and/or related drugs throughout the preceding six months. Seventeen KE provided information on the ecstasy users they had contact with/knowledge of in the six to 12 months preceding interview. All of the KE interviews were conducted in person.

The 17 KE interviewed in 2009 were employed in a range of occupations, and included law enforcement officers, including members of the Drug Task Force, Dog Squad (sniffer dogs), and Forensic Services Department (n=5); drug treatment worker/peer educators/outreach worker (n=2); paramedics and first aid workers (n=2); party promoters/event organisers (n=2); nightclub owners/managers (n=2); dealers (n=2); and researchers (n=2).

Twelve KE reported that they worked with one or more 'special population' groups, including youth (n=9) and gay and/or lesbian populations (n=3). The remaining KE (n=5) reported working with mixed populations (by age, ethnicity and gender identity). Many KE reported that the demographics of the ecstasy users they had contact with were comparable to that of the general community.

KE gained information from sources such as colleagues (both peers and junior staff with more hands-on roles), friends and acquaintances, data sets, research reports and websites. Ten KE obtained their knowledge solely through their work, two from personal/social networks, and the

remainder (n=5) stated that their information came from ecstasy users they knew through both their work and personal lives.

KE in 2009 were also asked to comment on what drug(s) they considered most problematic and the reasons why, and also comment on any changes in the drug market characteristics reported in 2009 compared to 2008.

## **2.3 Other indicators**

Primary information collected from the REU surveys and KE interviews was supplemented by data obtained from a number of secondary indicator sources of illicit drug use and related morbidity and mortality. Where possible, data relating to trends for the 2008/2009 financial year are reported, unless otherwise indicated. For secondary indicators, where current data are not available, the most recently available data have been included.

Indicator data sources accessed for this study are described in the following sections:

### **Surveys reporting on illicit drug use prevalence in Victoria**

- Data on the prevalence of drug use in the general community are typically derived from large-scale population surveys. The most recent household surveys from which estimates of illicit drug use within the community are available include the 2007 NDSHS (AIHW, 2008) and the 2004 Victorian Youth Alcohol and Drug Survey (Premier's Drug Prevention Council, 2005).

### **Drug seizure purity levels**

- The Drug Analysis Branch of the Victoria Police Forensic Services Department conducts purity analyses for all drug seizures made by the Victoria Police. The Victoria Police Forensic Services Department has provided drug purity data for inclusion in this report up to the 2008/2009 financial year.

### **Drug-related arrest data**

- Information pertaining to drug-related arrests in Victoria has been obtained from the Australian Crime Commission (ACC). The Victoria Police and the Australian Federal Police provide arrest data to the ACC for the Illicit Drug Data Report. This report presents drug-related arrest data for the 2007/2008 financial year.

### **Specialist drug treatment presentations**

- The Victorian Department of Human Services funds community-based agencies to provide specialist alcohol and drug treatment services across the state. The collection of client information is a mandatory requirement and occurs via a formalised client data collection system called the Alcohol and Drug Information System (ADIS). The ADIS data presented in this report represents courses of treatment (not client numbers) for the 2007/2008 financial year.
- DirectLine is a 24-hour specialist telephone service in Victoria (operated by Turning Point Alcohol & Drug Centre) that provides counselling, referral and advice about drug use and related issues. All calls to DirectLine are logged to an electronic database that can provide information about caller drugs of concern, calls from drug users and calls about drug users. This report presents data for the period 1999-2008.

### **Ambulance attendances at non-fatal drug overdoses and other episodes**

- Turning Point Alcohol & Drug Centre manages an electronic drug-related ambulance attendance database, comprising information obtained from the Melbourne Metropolitan Ambulance Service (MAS) Patient Care Records (Dietze et al., 2000). Reliable data are available from June 1998 (with missing data for the periods May-July 2001, October 2002-February 2003, and June-July 2004). Although the database includes overdose-related calls for all types of drugs, the dataset is best suited to the monitoring of non-fatal heroin-related

overdose, due to the availability of a biological marker of heroin involvement (i.e. the administration of Narcan and subsequent patient response). Data for the period January 2006-December 2008 are presented in this report.

### **National Hospital Morbidity Database**

- The National Hospital Morbidity Database (NHMD) is compiled by the AIHW. It is a collection of electronic records for admitted patients in public and private hospitals in Australia. 'Principal diagnosis' (the diagnosis established after study to be chiefly responsible for occasioning the patient's episode of care in hospital) has been reported. This report presents drug-related (amphetamine, cocaine and cannabis) hospital admissions for Victoria and Australia, 1999/2000-2007/2008 (Roxburgh & Burns, 2008; AIHW,2009).

### 3 OVERVIEW OF THE REGULAR ECSTASY USERS

#### 3.1 Demographic characteristics of the REU sample

The REU sample recruited in 2009 was comparable to previous years (Table 1). The participants were mostly heterosexual and 76% were aged between 18 and 25 years. The sample was generally well educated and, compared to 2008, there were significantly more males (67% vs 53%) and slightly more unemployed (16% vs 8%,  $p=0.08$ )

**Table 1: Demographic characteristics of REU sample, 2003-2009**

	2003 (N=100)	2004 (N=100)	2005 (N=100)	2006 (N=100)	2007 (N=100)	2008 (N=100)	2009 (N=100)
Mean age (years)	25.1	23.5	24.2	24.4	24.4	23.7	23.2
Male (%)	53	58	52	52	48	53	67
English-speaking background (%)	99	96	94	94	97	96	100
ATSI (%)	6	0	2	2	0	1	2
Heterosexual (%)	81	87	86	91	85	88	84
Mean number school years*	12.5	11.6	11.7	11.7	11.7	11.7	12
Tertiary qualifications (%)	41	53	52	42	34	46	46
Employed full-time (%)	31	25	33	26	32	38	25
Full-time students (%)	18	23	17	16	4	9	9
Unemployed (%)	24	17	15	20	14	8	16
Previous conviction (%)	7	4	4	6	5	2	1
Current drug treatment (%)	6	6	0	4	3	3	2
Mean income per week (\$)**	-	-	-	-	-	-	\$542

Source: REU interviews, 2003-2009

\*Question changed from 'How many years of school did you complete?' (2003) to 'What grade of school did you complete?' (2004-2009)

\*\* Income question introduced in 2009

As in previous years, information gained from KE interviews indicates that diverse groups of people (in terms of differing age, gender, sexuality, and geographic location) are part of the broad ERD-using population in Melbourne. Indeed, KE commented on the increasingly widespread nature of ERD use, with many KE stating that ecstasy use had become a normalised social activity.

Most KE described REU as being typically aged between 18 and 35 years, well educated, employed and living either in rental accommodation or in the family home. REU were also unlikely to report being involved in either drug treatment or the justice system. Males were more likely than females to have had contact with health services and the justice system and more homosexual males were recently seen in the drug diversion programs compared to last year.

### 3.2 Drug use history and current drug use

In 2009, the reported lifetime and recent use of different types of drugs remained largely similar to previous years. However, in comparison to 2008, there was a significant increase in the reported recent use of ‘designer (hallucinogenic) drugs’ (e.g. 2CB, DMT, Mephedrone) (12% vs 2%), amyl nitrite (41% vs 16%), LSD (46% vs 29%), benzodiazepines (53% vs 38%) and tobacco (86% vs 75%) (Table 2). Notably, Victorian REU reported benzodiazepine (illicit or licit) use more frequently than the national sample (53% vs 27% nationally,  $p < 0.05$ ).

**Table 2: Lifetime and recent polydrug use of REU, 2003-2009**

	2003 (N=100)	2004 (N=100)	2005 (N=100)	2006 (N=100)	2007 (N=100)	2008 (N=100)	2009 (N=100)
<b>Alcohol</b>							
Ever used (%)	99	100	100	99	100	99	100
Used last 6 months (%)	87	94	97	97	97	97	99
<b>Cannabis</b>							
Ever used (%)	98	98	97	97	98	99	95
Used last 6 months (%)	82	78	87	79	82	84	85
<b>Tobacco</b>							
Ever used (%)	86	94	93	93	96	88	91
Used last 6 months (%)	73	83	78	78	90	75	86
<b>Ecstasy powder*</b>							
Ever used (%)	–	–	55	66	64	49	37
Used last 6 months (%)	–	–	27	55	38	27	24
<b>Methamphetamine powder (speed)</b>							
Ever used (%)	98	98	97	100	99	90	90
Used last 6 months (%)	89	92	85	91	90	75	72
<b>Methamphetamine base (base)</b>							
Ever used (%)	50	45	34	32	30	20	18
Used last 6 months (%)	27	34	21	12	16	7	7
<b>Crystal methamphetamine (crystal)</b>							
Ever used (%)	75	71	71	73	64	53	36
Used last 6 months (%)	62	52	42	49	39	22	13
<b>Cocaine</b>							
Ever used (%)	80	72	79	82	79	79	75
Used last 6 months (%)	35	48	63	55	54	51	48
<b>LSD</b>							
Ever used %	86	72	67	60	70	51	63
Used last 6 months %	48	39	38	37	39	29	46
<b>MDA</b>							
Ever used (%)	40	37	25	26	29	24	9
Used last 6 months (%)	19	16	8	8	11	9	2
<b>Ketamine</b>							
Ever used %	70	70	56	56	52	55	43
Used last 6 months %	51	45	35	29	25	20	21
<b>GHB</b>							
Ever used (%)	33	38	33	35	34	20	15
Used last 6 months (%)	18	27	16	14	10	11	10
<b>Amyl nitrite</b>							
Ever used (%)	70	52	49	42	37	43	62
Used last 6 months (%)	25	20	20	11	16	16	41
<b>Nitrous oxide</b>							
Ever used (%)	59	54	41	32	37	43	43
Used last 6 months (%)	22	27	17	14	19	23	22
<b>Psilocybin mushrooms*</b>							
Ever used (%)	–	–	53	55	61	66	62
Used last 6 months (%)	–	–	19	32	26	20	27
<b>Benzodiazepines#</b>							
Ever used (%)	61	58	54	51	52	61	74
Used last 6 months (%)	38	41	37	36	32	38	53
<b>Antidepressants#</b>							
Ever used (%)	35	28	33	25	23	19	27
Used last 6 months (%)	11	12	14	10	7	8	13
<b>Heroin</b>							
Ever used (%)	39	18	18	23	12	16	16
Used last 6 months (%)	23	9	7	8	7	5	5
<b>Methadone</b>							
Ever used (%)	15	8	1	11	10	6	4
Used last 6 months (%)	6	2	0	6	5	3	1
<b>Other opiates</b>							
Ever used (%)	33	26	34	29	34	22	19
Used last 6 months (%)	9	13	18	16	18	13	8

**Source: REU interviews, 2003-2009**

\* Question not asked prior to 2005; # illicit and licit

For the purposes of this study, bingeing is defined as using any drug(s) on a continuous basis for more than 48 hours without sleep (Ovendon & Loxley, 1996). Thirty-seven percent of the sample reported that they had binged on ERD in the six months preceding interview. The median length of the longest binge was 67 hours (range 49-120 hours, excluding two participants who reported not sleeping for two weeks) and those reporting recent bingeing indicated having done so a median of four times (range 1-20 times) during that period. Of those respondents who reported that they had recently binged on ERD (n=37), ecstasy was the most commonly reported drug used during binges (97%), followed by tobacco (73%), speed (70%), alcohol (use >5 standard drinks, 65%), cannabis (60%), cocaine (24%), LSD (19%) and crystal meth (14%).



## 4 ECSTASY

### 4.1 Ecstasy use among REU

Patterns of ecstasy use remain comparable to previous years with REU reporting first trying ecstasy (and also using ecstasy regularly) at the median age of 19 years. They reported typically swallowing a median of two to four ecstasy pills on a fortnightly basis (Table 3). Most (n=93) REU reported ecstasy use with other drugs, mainly tobacco (70%), more than five standard drinks of alcohol per session (67%), cannabis (45%) and speed (20%). Thirty-one percent of REU reported more frequent ecstasy use (weekly or more) with 48% reporting the use of more than two pills during a typical session. Compared to 2008, reports of the use of other drugs when coming down from ecstasy were significantly less frequent among the 2009 REU (55%), representing the lowest levels since 2003. Of these, the majority (93%) reported using a benzodiazepine when coming down.

**Table 3: Patterns of ecstasy use among REU, 2003-2009**

	2003 (N=100)	2004 (N=100)	2005 (N=100)	2006 (N=100)	2007 (N=100)	2008 (N=100)	2009 (N=100)
Mean age first used ecstasy (years)	19	19	19	19	19	18	19
Ecstasy 'favourite' drug (%)	44	47	45	32	29	39	42
Median days used ecstasy pills last 6 months	15	15	13	14	12	12	15 <sup>#</sup>
Use ecstasy pills weekly or more (%)	36	21	33	31	29	38	31 <sup>#</sup>
Median ecstasy pills in 'typical' session	1.5	2	2	2	2	2	2 <sup>#</sup>
Typically use >1 pill (%)	55	77	72	75	72	77	77
Recently binged on ecstasy (%) <sup>*</sup>	55	42	51	39	50	38	36
Main route of administration of ecstasy pills in the last 6 months (%)							
Swallow	85	95	86	94	95	95	94
Snort	10	2	13	4	2	5	5
Inject	3	1	1	2	2	3	1
Ever injected ecstasy pills (%)	27	9	9	10	8	7	3
Main form used last 6 months (%) <sup>**</sup>							
Tablets (pills)	–	–	99	98	98	-	-
Powder	–	–	1	2	2	-	-
Typically use other drugs in conjunction with ecstasy (%)	97	94	97	97	95	98	96
Typically use other drugs to 'come down' from ecstasy (%)	84	85	88	82	84	80	55

**Source: REU interviews, 2003-2009**

<sup>\*</sup> Binged defined as the use of drugs for more than 48 hours continuously without sleep

<sup>\*\*</sup> Question not asked prior to 2005 and in 2008-2009

In 2009, REU were asked about the use of ecstasy *capsules*. Table 4 shows a similar pattern of use for ecstasy capsules as for ecstasy tablets. Compared to 2008, significantly more REU reported recent capsule use in 2009.

**Table 4: Patterns of ecstasy capsule use among REU, 2008-2009**

	2008 (N=100)	2009 (N=100)
Lifetime use of ecstasy capsules (%)	46	65
Used ecstasy capsules in last 6 months (%)	18	48
Mean age first used ecstasy (years) (range)	19 (13-33)	20 (17-43)
Median days used ecstasy capsules last 6 months* (range)	5 (1-24)	3 (1-18)
Median ecstasy capsules in 'typical' session* (range)	2 (1-20)	1.5 (1-5)
Main route of administration of ecstasy capsules in the last 6 months* (%)		
Swallow	78	94
Snort	53	46
Inject	0	0

**Source: REU interviews, 2008-2009**

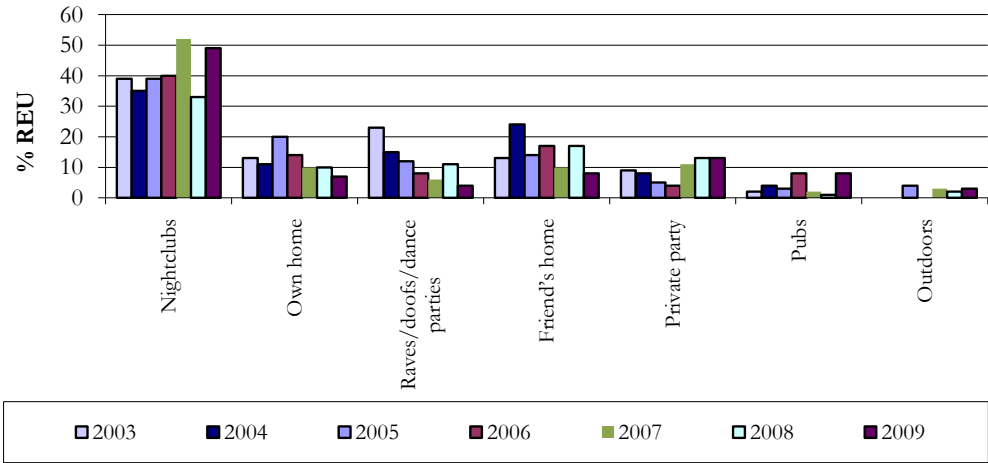
\* Among those who used ecstasy capsules in the last 6 months

Consistent with REU sample findings, KE suggested that there was a high prevalence of polydrug use among ERD users, with KE noting that this population usually combined ecstasy with many types of licit and/or illicit substances. In particular, KE reported that the ecstasy users they had contact with/knowledge of commonly used ecstasy in conjunction with alcohol, methamphetamines (primarily speed), cannabis and tobacco. As in previous years, KE reported that many REU consumed depressant drugs such as cannabis, alcohol, benzodiazepines and GHB to counter the 'comedown' effects following ecstasy use.

In general, KE suggested that ecstasy use alone was not problematic. In contrast, alcohol (alone or with other drugs such as GHB) was reported as problematic in 2009. However, two KE thought ecstasy use was problematic: one law enforcement officer involved with sniffer dogs because this was directly related to the nature of the officer's work and one user group representative who was concerned about bingeing on ecstasy in the outdoor setting where the heat and lack of food and water placed users at risk of dehydration and poor health.

The 2009 REU sample most commonly reported that their last location of ecstasy use was in nightclubs (49%), a private party (13%), a friend's home (8%), or at a pub (8%), their own homes (7%), a live music event (6%) or raves/doofs/dance parties (4%) (Figure 1). Smaller numbers of participants reported last using ecstasy outdoors (3%) or in a car or public place (e.g. park or street) (1%). Compared to 2008, there were significantly more REU intoxicated recently in a pub (8% vs 1%).

**Figure 1: Location of most recent ecstasy use, 2003-2009**



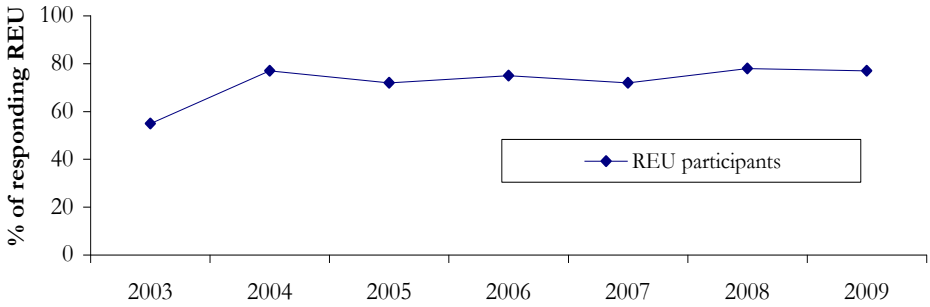
Source: REU interviews, 2003–2009

\* ‘Rave’ and ‘dance party’ categories combined from 2004 onwards. 2003 data represents rave and dance party combined

**4.2 Trends over time**

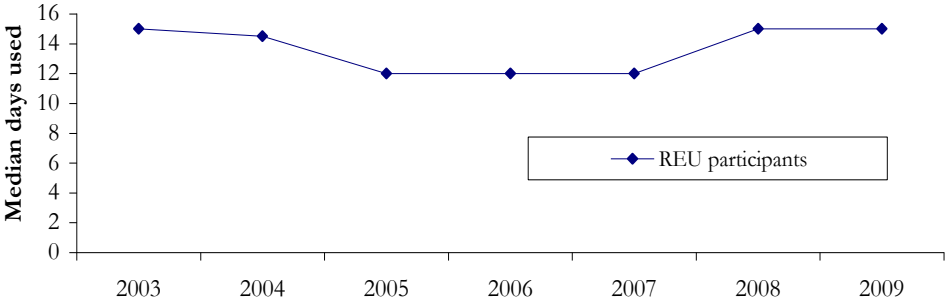
Patterns of ecstasy use were comparable to recent years with 77% of REU reporting using more than one ecstasy pill per drug-using session (Figure 2) and 48% reporting using more than two pills. Typically, REU reported recently using the drug on a median of 15 days (Figure 3) and 36% reported recently bingeing on ecstasy (Figure 4).

**Figure 2: Percentage of REU who report typically using more than one ecstasy tablet, 2003-2009**



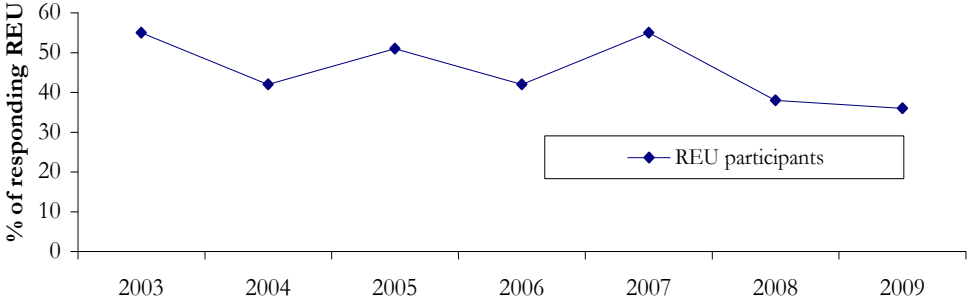
Source: REU interviews, 2003-2009

**Figure 3: Median days used ecstasy in the six months prior to interview, 2003-2009**



Source: REU interviews, 2003-2009

**Figure 4: Percentage of REU who reported bingeing\* on ecstasy during the six months prior to interview, 2003-2009**



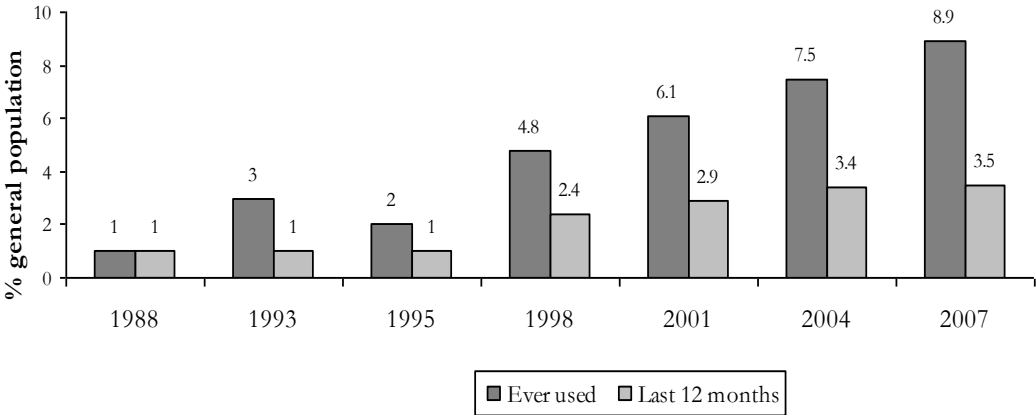
Source: REU interviews, 2003-2009

\* Bingeing is defined as the use of drugs for more than 48 hours continuously without sleep

**4.3 Use of ecstasy in the general population**

The 2007 NDSHS provides the most recent national figures regarding the prevalence of ecstasy use in the general population. The results of this survey indicate that, in 2007, 3.5% of the Australian population aged 14 years and over reported recent (in the last 12 months) ecstasy use (AIHW, 2008), a nearly identical figure to that found in the previous NDSHS (AIHW, 2005) (see Figure 5). Figures for Victoria were almost identical to the national figures in 2007 .

**Figure 5: Prevalence of ecstasy use among the population aged 14 years and over in Australia, 1988-2007**



Source: 2007 NDSHS (AIHW, 2008)

Nationally, the highest prevalence of both reported lifetime (23.9%) and recent (11.2%) ecstasy use was found in the 20-29 year old age group (AIHW, 2008). Data from the most recent Victorian Youth Alcohol and Drug Survey (VYADS) (Premier’s Drug Prevention Council, 2005) provide further evidence of the relatively high levels of ecstasy use among young people: of the 16-24 year olds surveyed in 2004 (N=6,005), 18% reported having ever used ecstasy, 12% reported past-year use, 6% reported past-month ecstasy use and 2% reported past-week use (Premier’s Drug Prevention Council, 2005). Of those who reported past-year ecstasy use, however, frequency of use tended to be low: 34% reported using it once a month or more often, 30% reported using it ‘every few months’, 24% reported using it once or twice a year, and 12% reported ecstasy use on only one occasion (Premier’s Drug Prevention Council, 2005). The vast majority of respondents (97%) reported taking ecstasy in pill or tablet form (Premier’s Drug Prevention Council, 2005). The median reported age of first use for the participants in the VYADS was 17.4 years (Premier’s Drug Prevention Council, 2005), lower than the 22.6 years found in the 2007 NDSHS (AIHW, 2005).

**4.4 Price**

Participants reported a median price of \$25 per ecstasy pill (Table 5). The reported cost per pill was cheaper when purchased in bulk; the median reported cost per pill was approximately \$20 (range= \$14.50-\$25) when 20-50 pills were purchased and \$17 (range= \$12-\$22) for 100 pills.

Consistent with REU sample findings, most KE reported the price per pill was between \$25-\$30, with two KE (dealer and police) reporting the bulk wholesale price per ecstasy pill to be \$15-\$22 each (a slight increase from 2008) which is then sold to middle level traffickers for \$20-\$26 each.

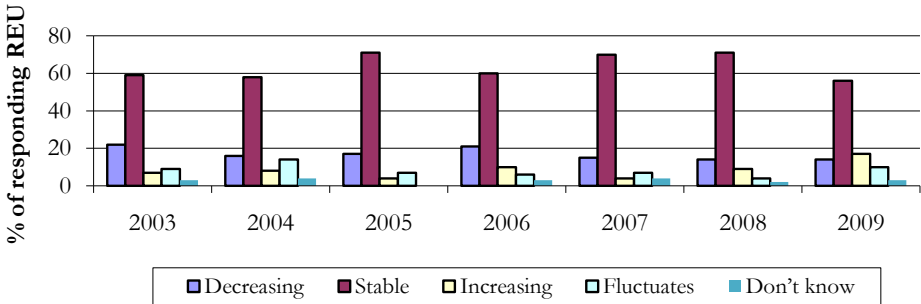
**Table 5: Price of ecstasy purchased by REU, 2003-2009**

	2003	2004	2005	2006	2007	2008	2009
Median price per tablet (range)	\$30 (\$8-\$50)	\$30 (\$14-\$45)	\$30 (\$15-\$40)	\$30 (\$15-\$40)	\$30 (\$15-\$50)	\$27.50 (\$17.50-\$40)	\$25 (\$10-\$35)

Source: REU interviews, 2003-2009

In 2009 a significantly lower percentage for the sample (56% vs 71%) reported that the recent price of ecstasy was stable compared to 2008 (Figure 6).

**Figure 6: Recent changes in price of ecstasy purchased by REU, 2003-2009**

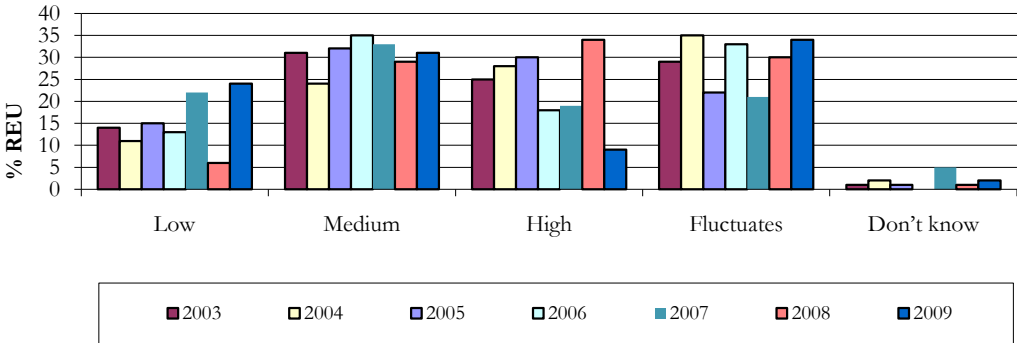


Source: REU interviews, 2003-2009 (N=100 each year)

**4.5 Purity**

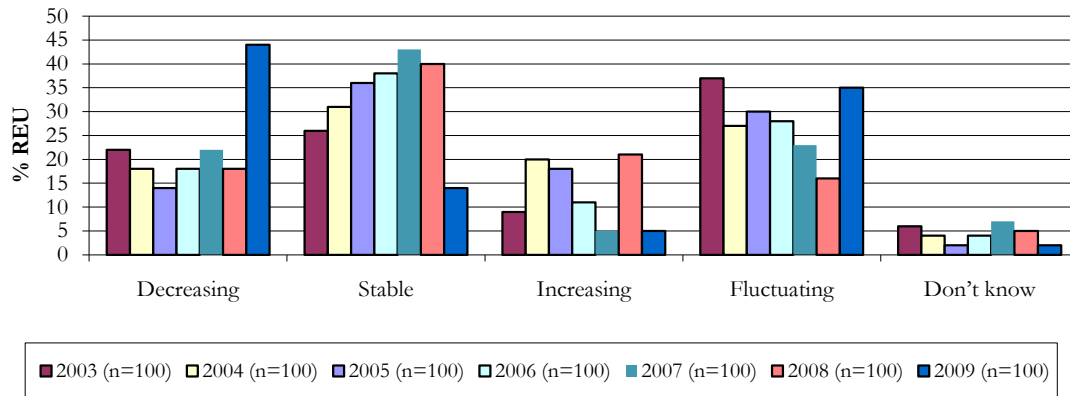
In comparison to 2008, significantly more REU reported the current purity of ecstasy as low (24% vs 6%) (Figure 7) with the reported recent purity also having decreased between the years (44% vs 18%) (Figure 8).

**Figure 7: REU reports of current ecstasy purity, 2003-2009**



Source: REU interviews, 2003-2009 (N=100 each year)

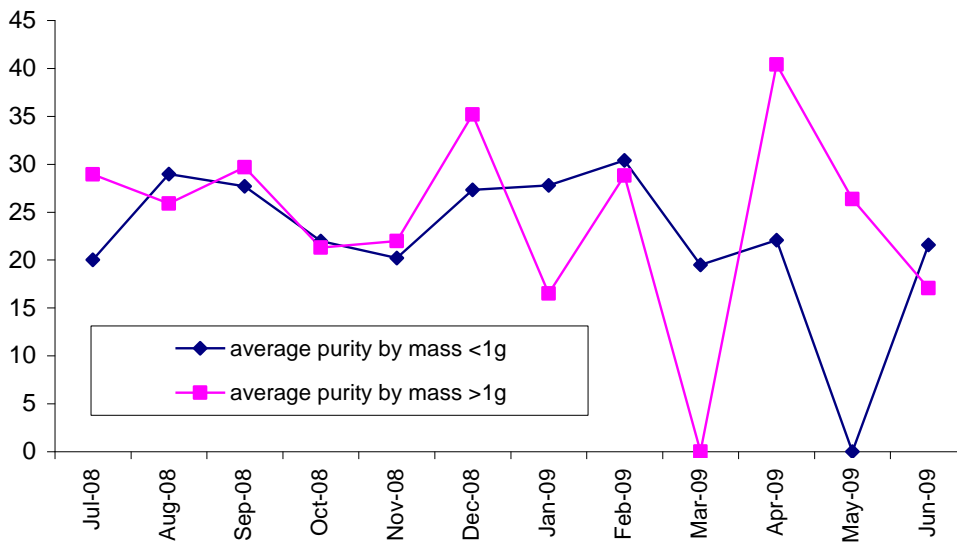
**Figure 8: REU reports of change in purity of ecstasy in the preceding six months, 2003-2009**



Source: REU interviews, 2003-2009 (N=100 each year)

The average purity level of ecstasy seizures analysed by law enforcement agencies in Victoria during the 2008/2009 financial year was 25% (range=16.5%-40.4%) (Figure 9) which is comparable to previous years (28% in 1998/1999 to 29% in 2007/2008; range=28-34)

**Figure 9: Purity of ecstasy seizures by Victorian law enforcement, July 2008-June 2009**



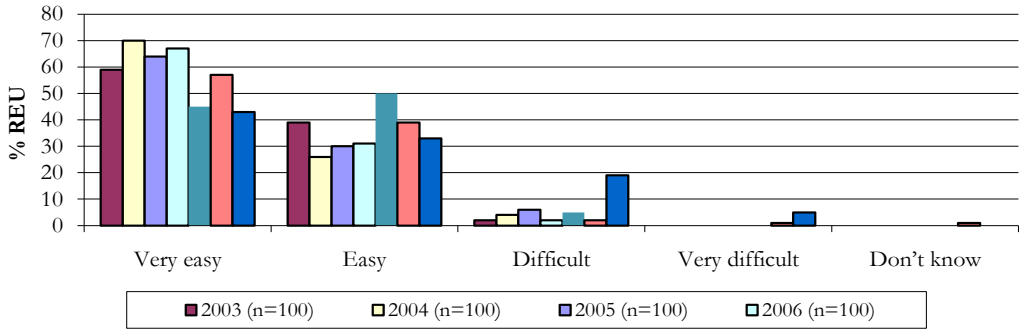
Source: Victoria Police Forensic Services Department

#### 4.6 Availability

Compared to 2008, reports that ecstasy was more difficult to source were significantly more frequent in 2009 with 24% (vs 3% in 2008) reporting it was difficult or very difficult to currently obtain ecstasy (Figure 10) and 30% (vs 8% in 2008) reporting it difficult to source in the six months preceding the interview (Figure 11).

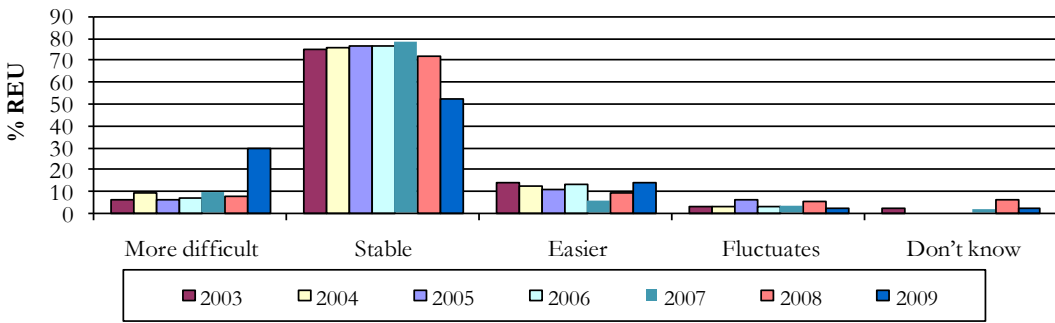
Four KE (including a dealer) confirmed that availability had been lower since February 2009 with these changes in availability coinciding with reports of significant seizures of ecstasy (and cannabis) in the last 12 months by law enforcement officers (Project INCA).

**Figure 10: REU reports of current availability of ecstasy in the preceding six months, 2003-2009**



Source: REU interviews, 2003-2009 (N=100 each year)  
 Note: The 2003 REU survey included a ‘moderately easy’ category, combined here with the ‘easy’ category

**Figure 11: REU reports of changes in availability of ecstasy in the preceding six months, 2003-2009**

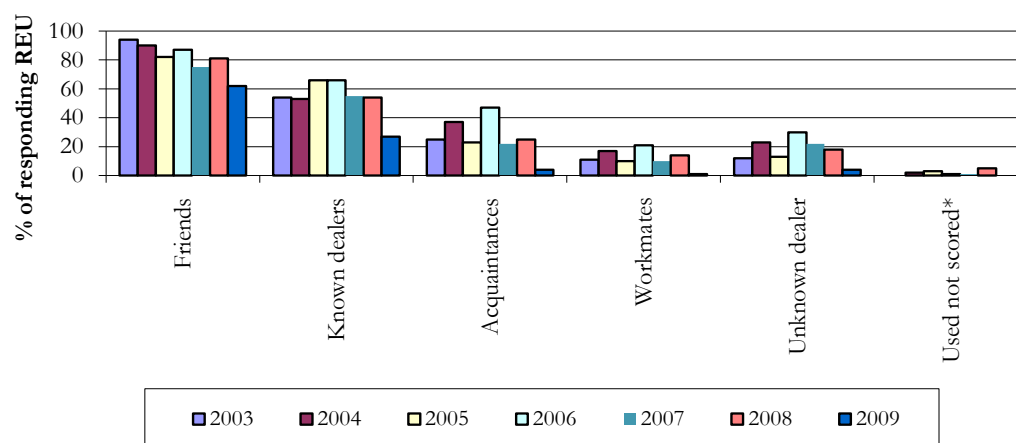


Source: REU interviews, 2003-2009 (N=100 each year)

As with previous years, the majority of the 2009 REU sample reported that in the six months prior to interview they had obtained ecstasy from friends (62%) or known dealers (27%) (Figure 12). Ecstasy was reported to be most commonly obtained at private homes (48% reporting obtaining in their own, dealer’s or friend’s home), nightclubs (16%), or at an agreed public locations (13%) (Figure 13).



**Figure 12: People from whom ecstasy was purchased in the preceding six months, 2003-2009**

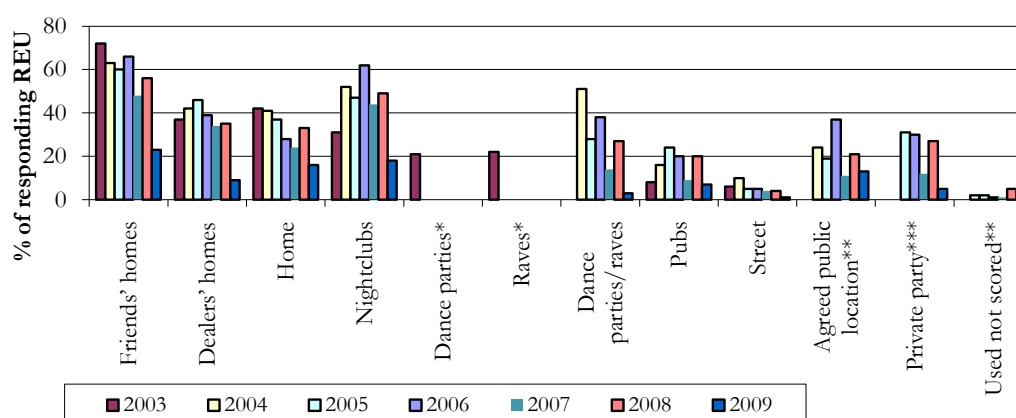


Source: REU interviews, 2003-2009 (N=100 each year)

\* Category not included in 2003 REU survey

2009 data represent the person from whom ecstasy was purchased the last time

**Figure 13: Locations where ecstasy was purchased in the preceding six months, 2003-2009**



Source: REU interviews, 2003-2009 (N=100 each year)

\* 'Rave' and 'dance party' categories combined from 2004 onwards

\*\* Categories not included in 2003 REU survey

\*\*\* Private party category added in 2005

2009 data represent the location at which ecstasy was purchased the *last* time

#### 4.5.1 Ecstasy markets and patterns of purchasing ecstasy

Patterns of ecstasy purchase by REU were consistent with previous years with reports of purchasing a median of four pills (range=1-500) on each occasion, on a fortnightly to monthly basis, for themselves and others in 2009 (Table 6).

**Table 6: Patterns of purchasing ecstasy, 2007-2009**

	2007 (N=100)	2008 (N=100)	2009 (N=100)
<b>Median no. of people purchased from</b>	3	3	4
<b>Purchased for (%)</b>			
Self only	30	27	33
Self and others	70	67	66
Others only	0	0	1
<b>No. of times purchased in the last 6 months (%)</b>			
1-6	44	40	47
7-12	37	26	30
13-24	19	24	22
25 +	0	4	1
<b>Median no. of ecstasy tablets purchased</b>	5	5	5
<b>Able to purchase other drugs from main dealer (%)*</b>	81	67	-
<b>Drugs able to purchase (%)*</b>			
Speed	77	70	-
Base	11	6	-
Ice	37	28	-
Pharmaceutical stimulants	4	0	-
Cocaine	44	48	-
MDA	14	10	-
LSD	30	24	-
GHB	12	12	-
Ketamine	22	15	-
Cannabis	56	61	-
Heroin	1	6	-

**Source: REU interviews, 2007-2009**

\* Among those who reported being able to purchase other drugs from main dealer. Not collected in 2009

## 5 METHAMPHETAMINE

### 5.1 Methamphetamine use among REU

#### 5.1.1 Methamphetamine powder (speed)

Most (90%) of the 2009 REU sample reported lifetime methamphetamine powder (speed) use and the majority (72%) reported speed use in the preceding six months (Table 7). However, the decline in use evident since 2003 continued in 2009.

As with previous years, the median reported age of first speed use was 18 years (range=15-28). Participants who reported speed use in the preceding six months reported use on a median of five days, with 85% reporting the use of speed once a month or less and only 10% reporting weekly or more frequent use. REU typically reported using half a gram during a typical and heavy session, with the reported amount used during a heavy session decreasing since 2008. Speed was reported as typically being snorted (85%), swallowed (51%) or smoked (39%).

Among recent speed users, 28% reported use with ecstasy. Thirty-six percent reported bingeing on speed in the six months prior to interview.

**Table 7: Patterns of methamphetamine powder (speed) use among REU, 2003-2009**

Speed	2003 (N=100)	2004 (N=100)	2005 (N=100)	2006 (N=100)	2007 (N=100)	2008 (N=100)	2009 (N=100)
Ever used (%)	98	98	97	100	99	90	90
Used preceding 6 months (%)	89	92	85	91	90	75	72
<b>Of those who had used</b>							
Median days used last 6 months (range)	8 (1-170) (n=89)	7.5 (1-150) (n=92)	10 (1-80) (n=85)	12 (1-120) (n=91)	7 (1-100) (n=90)	6 (1-90) (n=73)	5 (1-80) (n=72)
<b>Median quantities used (grams)</b>							
Typical (range)	0.5 (0.1-5) (n=23)	0.5 (0.13-1) (n=23)	0.5 (0.05-1) (n=35)	0.5 (0.25-1) (n=36)	0.5 (0.1-1.5) (n=47)	0.5 (0.1-4) (n=56)	0.5 (0.1-3) (n=42)
Heavy (range)	1 (0.1-14) (n=43)	1 (0.25-4) (n=40)	1 (0.01-5) (n=48)	1 (0.25-4) (n=51)	1 (0.15-4.5) (n=53)	1 (0.1-7) (n=64)	0.5 (0.1-17) (n=46)

Source: REU interviews, 2003-2009

#### 5.1.1 Methamphetamine base

Eighteen percent of the 2009 REU sample reported that they had ever used methamphetamine base (base), with only seven participants reporting base use in the preceding six months (Table 8). The median reported age of first base use was 18 years (range=15-27). Given the very low number of recent base users, no further analyses were undertaken.

**Table 8: Patterns of methamphetamine base use among REU, 2003-2009**

<b>Base</b>	2003 (N=100)	2004 (N=100)	2005 (N=100)	2006 (N=100)	2007 (N=100)	2008 (N=100)	2009 (N=100)
Ever used (%)	50	45	34	32	30	20	18
Used last six months (%)	27	34	21	12	16	7	7
<b>Of those who had used</b>							
Median days used last 6 months (range)	4 (1-52)	2.5 (1-48)	3 (1-70)	4 (1-15)	3 (1-20)	10 (1-60)	1 (1-6)
<b>Median quantities used (points)</b>							
Typical (range)	1 (0.13-3) (n=15)	1 (0.25-5) (n=26)	1.25 (0.5-3) (n=14)	2 (0.5-4) (n=8)	2 (1-5) (n=10)	3 (0.5-5) (n=7)	0.85 (0.2-5) (n=7)
Heavy (range)	1 (0.5-11) (n=16)	1 (0.5-5) (n=19)	2 (0.5-3) (n=13)	2.5 (0.5-8) (n=6)	2.25 (1-5) (n=10)	5 (1-20) (n=5)	0.85 (0.2-8) (n=7)

Source: REU interviews, 2003-2009

### 5.1.2 Crystal methamphetamine

The use of crystal methamphetamine continued to decline in 2009 with only 13% of 2009 REU reporting using it in the six months preceding the interview (Table 9).

Patterns of use remained comparable to previous years with recent users initiating use at the median age of 20 years (range=18-28). Under half of those who reported recent use reported use with ecstasy (n=5). Crystal meth was reported as being usually smoked (n=11) -injection or snorting reported very infrequently (n=3).

**Table 9: Patterns of crystal methamphetamine use among REU, 2003-2009**

<b>Crystal methamphetamine</b>	2003 (N=100)	2004 (N=100)	2005 (N=100)	2006 (N=100)	2007 (N=100)	2008 (N=100)	2009 (N=100)
Ever used (%)	75	71	71	73	64	53	36
Used last six months (%)	62	52	42	49	39	22	13
<b>Of those who had used</b>							
Median days used last 6 mths (range)	6 (1-60) (n=62)	5.5 (1-96) (n=52)	4.5 (1-100) (n=42)	5 (1-48) (n=49)	3 (1-100) (n=39)	4.5 (1-60) (n=22)	3 (1-60) (n=13)
<b>Median quantities used (points)</b>							
Typical (range)	1 (0.25-3) (n=42)	1 (0.5-5) (n=40)	1 (0.13-5) (n=28)	2 (0.25-3) (n=32)	1.5 (0.25-5) (n=31)	1 (0.1-5) (n=18)	1.5 (0.1-4) (n=9)
Heavy (range)	2 (0.5-6) (n=33)	1 (0.5-4) (n=31)	2 (0.5-5) (n=26)	2 (0.5-8) (n=26)	2 (0.25-10) (n=28)	2 (0.1-10) (n=17)	2 (0.1-15) (n=9)

Source: REU interviews, 2003-2009

### 5.1.3 Location of methamphetamine use

In 2009, REU commonly reported recent speed use in nightclubs (34%) or at their own or friends' homes (37%), a pattern consistent with that recorded in 2008. Small numbers precluded further analysis of the locations of recent base and crystal meth use.

Methamphetamines were considered a problematic drug by several KE with mental illness, violence and antisocial behaviour reported as common issues. Additionally, the risky behaviours associated with its use such as not sleeping for days, poor nutrition, and possibly higher alcohol intake was also reported. Both party promoters reported that the violence associated with the use of amphetamines and alcohol was their main concern at large music festivals.

## 5.2 Methamphetamine use in the general population

The 2007 NDSHS provides the most recent national figures regarding the prevalence of methamphetamine use in the Australian general population. This survey indicates that, in 2007, 2.3% of the Australian population aged 14 years and over reported recent (in the last 12 months) use of methamphetamine (AIHW, 2008), a decline from 2004 (3.2%) (AIHW, 2005). The figures for Victoria were almost identical. It is noteworthy that, as with ecstasy use, the highest prevalence of both lifetime (16%) and recent (7.3%) methamphetamine use nationally was reported by the 20-29 year old age group with a median reported age of first methamphetamine use of 20.9 years (AIHW, 2008).

Figures from the most recent VYADS (Premier's Drug Prevention Council, 2005) are comparable with these findings: of the 16-24 year olds surveyed (n=6,005), 15% reported having ever used methamphetamine in their lifetime, and 10% reported use in the 12 months prior to survey. The VYADS provides evidence of the relatively infrequent use of methamphetamine among this younger age group: among recent methamphetamine users, 35% reported using approximately once a month or more frequently, 29% reported using every few months, 22% reported using once or twice a year, and 14% reported having only used methamphetamine on one occasion (Premier's Drug Prevention Council, 2005). According to the VYADS, speed (87%) and crystal (19%) were the most commonly used forms of methamphetamine by respondents, and were most commonly snorted (72%), swallowed (59%) or smoked (23%) (Premier's Drug Prevention Council, 2005).

### 5.3 Price

Consistent with previous years, the median reported price per gram for speed was \$190 (Table 10). In 2009, REU who commented on the recent price of speed (n=35) generally reported the price had remained stable (54%) or had increased (17%) with only 9% reporting that the price was fluctuating or decreasing, a finding consistent with 2008. Small numbers precluded further analysis of the prices of recent base and crystal meth use.

**Table 10: Price of various methamphetamine forms purchased by REU, 2003-2009**

Median price (\$)	2003	2004	2005	2006	2007	2008	2009
Speed Point	\$30 (\$15-\$50) (n=30)	\$25 (\$15-\$50) (n=34)	\$30 (\$20-\$50) (n=16)	\$20 (\$20-\$60) (n=19)	\$30 (\$20-\$100) (n=12)	\$50 (\$20-\$120) (n=7)	\$25 (\$20-\$30) (n=2)
Half gram	–	\$95 (\$80-\$120) (n=4)	\$100 (\$50-\$130) (n=11)	–	\$100 (\$80-\$180) (n=8)	–	\$100 (n=1)
Gram	\$180 (\$30-\$300) (n=33)	\$180 (\$50-\$250) (n=34)	\$180 (\$100-\$280) (n=46)	\$200 (\$80-\$250) (n=45)	\$195 (\$90-\$250) (n=38)	\$200 (\$100-\$300) (n=52)	\$190 (\$135-\$320) (n=31)
Ounce	–	–	\$1300 (n=1)	–	–	–	–

Median price (\$)	2003	2004	2005	2006	2007	2008	2009
<b>Base Point</b>	\$32.50 (\$20-\$230) (n=10)	\$28.75 (\$25-\$50) (n=6)	\$22.50 (\$20-\$25) (n=2)	–	\$50 (n=1)	\$30 (\$25-\$35) (n=4)	–
Half gram	–	\$110 (\$100-\$120) (n=2)	–	–	–	–	–
Gram	–	\$200 (\$160-\$270) (n=3)	\$200 (\$170-\$300) (n=4)	\$250 (n=2)	\$200 (\$120-\$200) (n=3)	\$150 (n=1)	\$300 (n=1)
<b>Crystal Point</b>	\$40 (\$20-\$50) (n=29)	\$40 (\$25-\$50) (n=20)	\$40 (\$25-\$40) (n=5)	\$47.50 (\$25-\$50) (n=12)	\$40 (\$30-\$50) (n=8)	\$50 (\$40-\$50) (n=8)	\$50 (\$40-\$50) (n=5)
Half gram	–	\$150 (\$125-\$180) (n=4)	\$120 (n=1)	–	\$200 (\$150-\$200) (n=5)	–	–
Gram	\$300 (\$200-\$400) (n=13)	\$290 (\$120-\$400) (n=11)	\$385 (\$200-\$550) (n=12)	\$360 (\$200-\$400) (n=13)	\$300 (\$200-\$400)	\$237.50 (\$150-\$500) (n=10)	\$400 (\$200-\$450) (n=4)
Quarter ounce	–	–	\$2,450 (n=1)	–	–	–	–

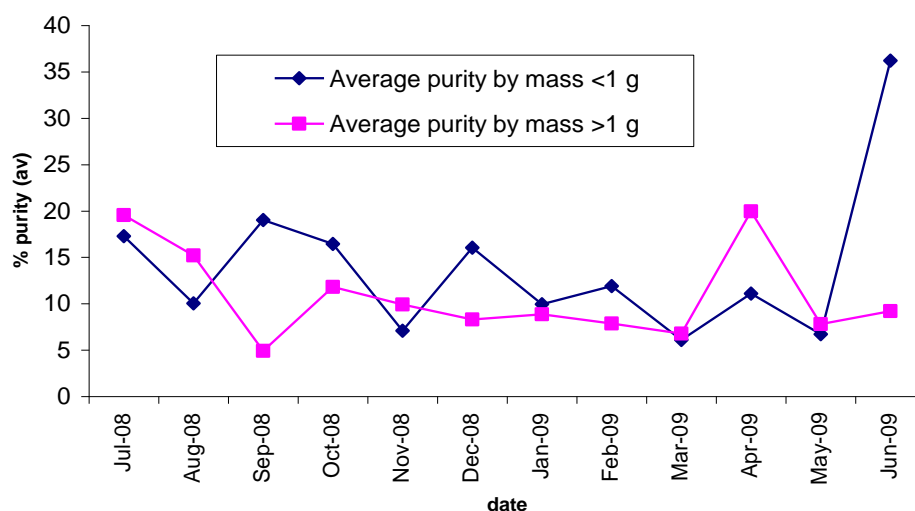
Source: REU interviews, 2003-2009

## 5.4 Purity

Consistent with 2008, 2009 REU who commented on the current purity of speed (n=35) generally reported that it was of medium (49%) or low (29%) purity. Nineteen percent reported that speed was currently of high purity and 15% reported fluctuating purity. Most viewed recent speed purity as stable (29%), decreasing (31%) or fluctuating (26%) with only 11% reporting a perception of increasing purity. Small numbers precluded further analysis of the perceptions of purity of base and crystal meth.

The mean purity of all seizures of methamphetamine analysed in Victoria during the 2008/2009 financial year was 13% (range=5%-36%) (Figure 14), the lowest purity recorded since 2000/2001 (21% in 2000/2001 and 2007/2008; range=18-33). This low purity supports the fact that the crystalline presentation of 'ice' does not necessarily assure high purity.

**Figure 14: Average purity of methamphetamine seizures by Victorian law enforcement, July 2008-June 2009**



Source: Victoria Police Forensic Services Department

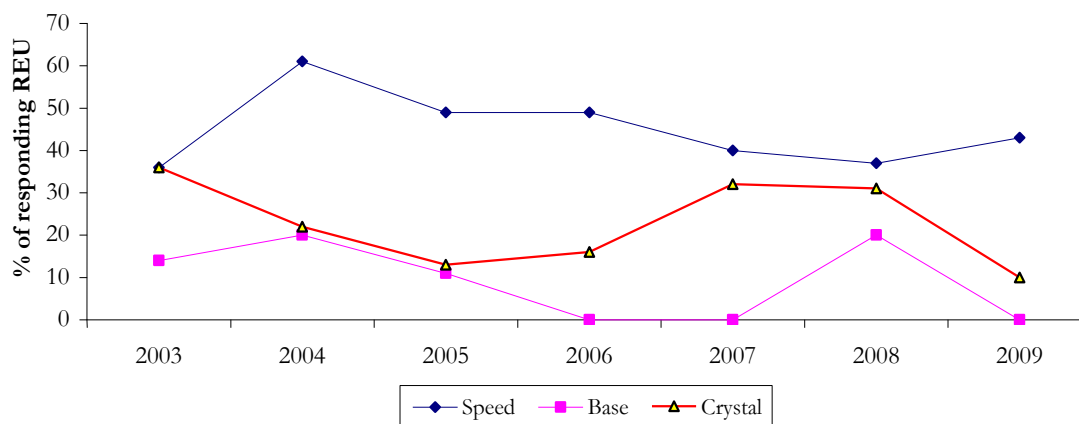
## 5.5 Availability

The reported current availability varied across the three types of methamphetamines (Figure 21).

In 2009, the REU who commented on the current availability of speed (n=35) generally reported that it was very easy (43%) or easy (34%) to obtain, with the remaining 23% reporting that it was difficult to obtain.

Figure 15 presents the percentage of REU who were able to comment from the 2003-2009 samples that reported each of the three forms of methamphetamine as very easy to obtain. There was no significant difference between 2008 and 2009 data in relation to speed, and small numbers precluded further analysis of the other two methamphetamine forms.

**Figure 15: Changes to current availability over time – percentage of REU who report various forms of methamphetamine as very easy to obtain at the time of interview in Melbourne, 2003-2009**



Source: REU interviews, 2003-2009

In 2009, the majority (63%) of REU who commented on the recent changes in the availability of speed (n=35) reported availability was stable, with only 14% reporting increasing availability, 11% reporting decreasing availability and 6% reporting fluctuating availability. Small numbers precluded further analysis of the perceptions of base and crystal meth availability.

In 2009, REU who commented on the *last* person they purchased speed from (n=35) generally reported obtaining it from friends (63%) or known dealers (26%). Small percentages reported obtaining it from other sources (9% and 3% for acquaintances and workmates respectively). This pattern was similar to that evident in 2008 where the question related to the *usual* person REU purchased speed from. Small numbers precluded further analysis of the purchases of base and crystal meth.

In 2009, REU who commented on the *last* location where they purchased speed (n=35) reported obtaining it in their own homes (29%), a friend's home (26%) or an agreed public location (23%). Smaller percentages reported obtaining it in nightclubs (11%) or a dealer's home (6%). Small numbers precluded further analysis of the location of base and crystal meth purchases.



## 6 COCAINE

### 6.1 Cocaine use among REU

Consistent with previous years, the majority (75%) of the 2009 REU sample reported having ever used cocaine and 48% reported use in the preceding six months (Table 11), with the median age of first use being 19 years (range=16-42).

The patterns of cocaine use in 2009 also remained comparable to previous years with recent REU reporting irregular use (once every three months), using a median of half to one gram, and usually snorting it (98%). Only 16% reported monthly or more frequent cocaine use. Among recent users, 11% reported cocaine use with ecstasy, 19% reported bingeing on it but no one reported using it when coming down from ecstasy.

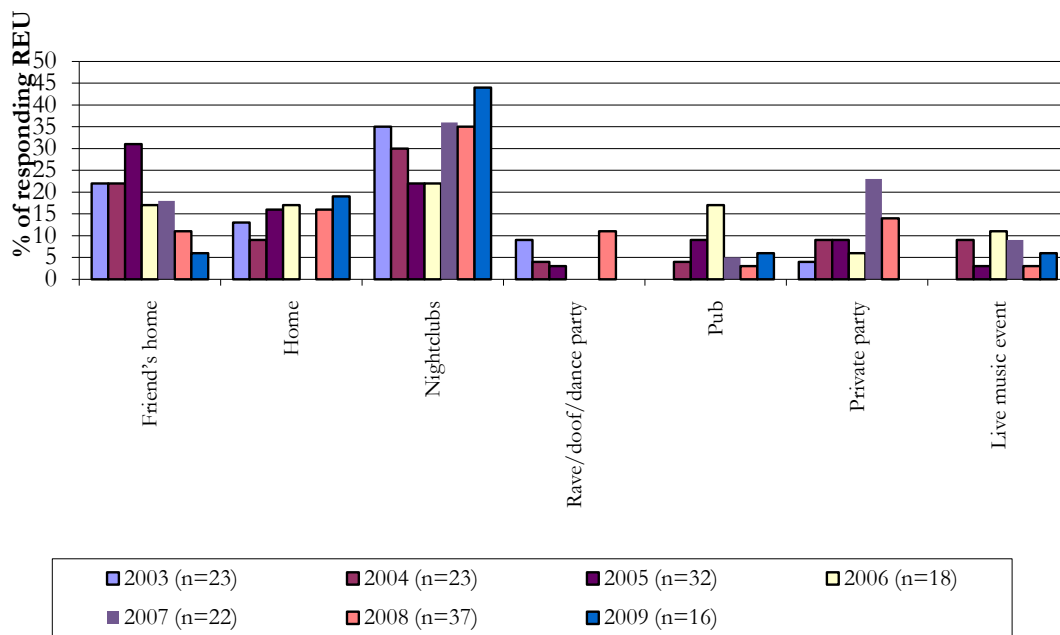
**Table 11: Patterns of cocaine use among REU, 2003-2009**

Cocaine	2003 (N=100)	2004 (N=100)	2005 (N=100)	2006 (N=100)	2007 (N=100)	2008 (N=100)	2009 (N=100)
Ever used %	80	72	79	82	79	79	75
Used last six months %	35	48	63	55	54	51	48
<b>Of those who had used</b>							
Median days used last 6 months (range)	3 (1-30) (n=35)	1.5 (1-180) (n=48)	2 (1-50) (n=63)	2 (1-72) (n=55)	2 (1-34) (n=54)	3 (1-40) (n=51)	2 (1-50) (n=48)
<b>Median quantities used (grams)</b>							
Typical (range)	0.5 (0.25-3) (n=13)	0.5 (0.13-2) (n=20)	0.5 (0.1-3) (n=31)	1 (0.1-3) (n=27)	0.5 (0.15-2) (n=1)	0.5 (0.1-7) (n=40)	0.5 (0.1-2) (n=32)
Heavy (range)	1 (0.5-3.5) (n=16)	0.5 (0.13-4) (n=23)	1 (0.1-5) (n=33)	1 (0.2-9) (n=35)	1 (0.2-5) (n=30)	1 (0.1-7) (n=43)	1.0 (0.1-4) (n=35)

Source: REU interviews, 2003-2009

Consistent with previous years, the *last* location of cocaine use was in nightclubs (44%) or at their own homes (19%) (Figure 27). This was comparable to 2008 data on the *usual* location of use where recent use was most commonly reported in nightclubs (67%), followed by private parties (58%) or friends' homes (55%).

Figure 16: Location of most recent cocaine use, 2003-2009



Source: REU interviews, 2003-2009

## 6.2 Cocaine use in the general population

The 2007 NDSHS provides the most recent national figures regarding the prevalence of cocaine use in the Australian general population. This survey indicates that, in 2007, 1.6% of the Australian population aged 14 years and over reported recent (in the last 12 months) cocaine use, a statistically significant increase from the 2004 survey estimate of 1% (AIHW, 2008). The figures for Victoria were identical to the national figures in 2007.

As is the case with ecstasy and methamphetamine use, nationally, the highest prevalence of both lifetime (11.9%) and recent (5.1%) cocaine use was reported by the 20-29 year old age group (AIHW, 2008), an increase from 2004 (lifetime use 8.9% and recent use 3%). Figures from the most recent VYADS (Premier's Drug Prevention Council, 2005) are comparable with these findings: of the 16-24 year olds surveyed (n=6,005), 6% reported having ever used cocaine in their lifetime, and 3% reported use in the 12 months prior to survey. The VYADS also provides indicators of the frequency of cocaine use among this younger age group: among recent cocaine users, 17% reported using cocaine once a month or more frequently, 22% reported using cocaine every few months, 31% reported using cocaine once or twice a year, and 30% reported having only used cocaine on one occasion in the previous year (Premier's Drug Prevention Council, 2005). According to the VYADS, cocaine was most commonly used in powder form (95%), although a small proportion of recent users reported having used crack cocaine (smokeable crystals) (7%). The majority of respondents reported typically snorting cocaine (91%). The median reported age for first cocaine use was 18.5 years (Premier's Drug Prevention Council, 2005), compared to a median age of 23.1 years suggested by the 2007 NDSHS (AIHW, 2008). This is likely to be an artefact of the differing sampling frames of the two surveys.

### 6.3 Price

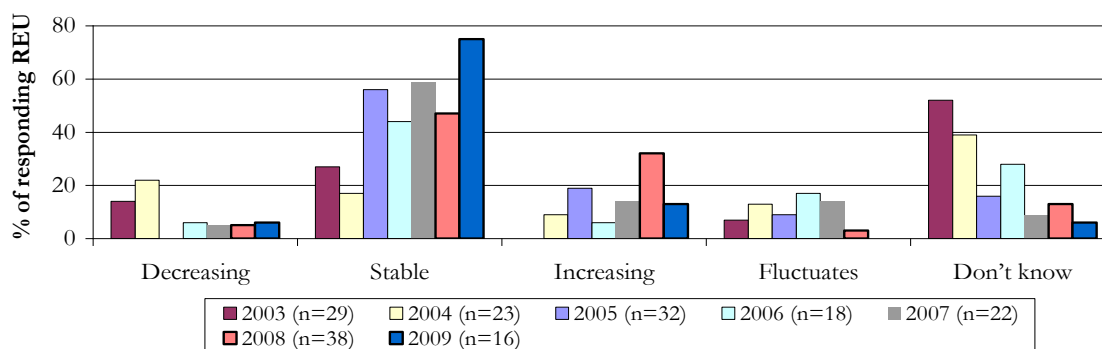
The median reported price of cocaine in 2009 remained consistent with previous years at \$300 per gram (Table 12) and this price remained stable in the six months preceding interview (Figure 17). This was consistent with the report of one peer group representative KE who reported the price of cocaine to be \$300 per gram.

**Table 12: Price of cocaine purchased by REU, 2003-2009**

Variable	2003 (N=100)	2004 (N=100)	2005 (N=100)	2006 (N=100)	2007 (N=100)	2008 (N=100)	2009 (N=100)
Median price per gram (range)	\$250 (\$100-\$400) (n=14)	\$277.50 (\$100-\$400) (n=16)	\$300 (\$200-\$350) (n=29)	\$300 (\$200-\$400) (n=18)	\$300 (\$250-\$500) (n=19)	\$300 (\$200-\$500) (n=36)	\$300 (\$180-\$380) (n=16)

Source: REU interviews, 2003-2009

**Figure 17: Recent changes in price of cocaine purchased by REU, 2003-2009**

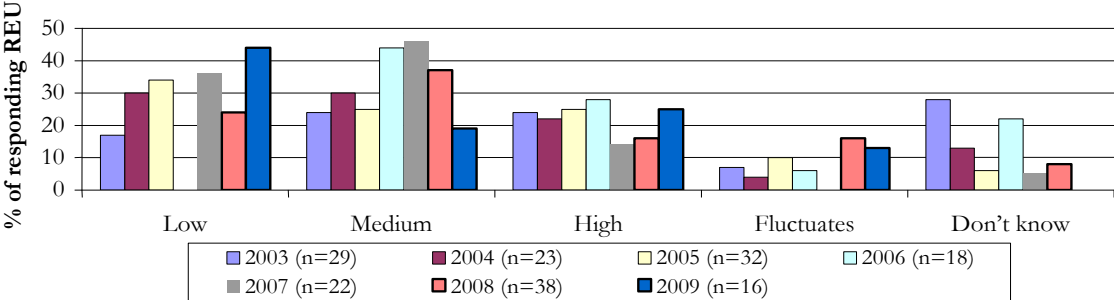


Source: REU interviews, 2003-2009

### 6.4 Purity

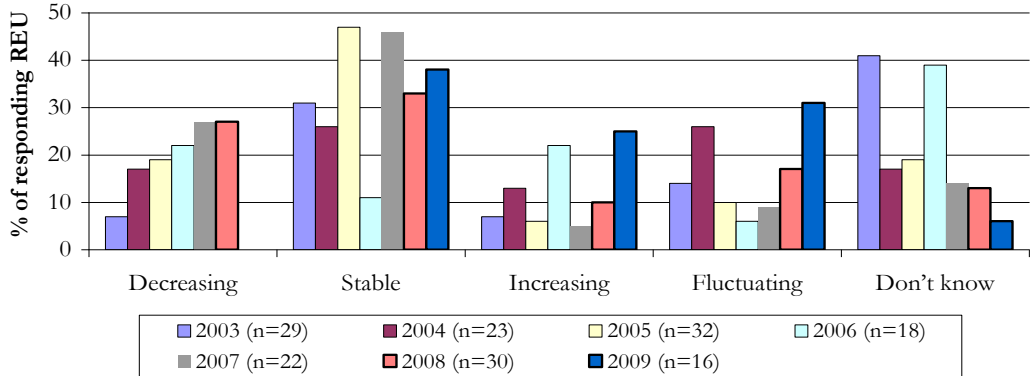
Consistent with previous years, perceptions of cocaine purity among the recent cocaine users in the REU sample (n=16) varied with equal proportions (44%) reporting its purity was either low or medium-to-high (Figure 18). Similarly, these people reported that the purity had recently been stable (33%) or fluctuated (31%) (Figure 19). Twenty-five percent reported that purity had recently increased.

**Figure 18: User reports of current purity of cocaine, 2003-2009**



Source: REU interviews, 2003-2009

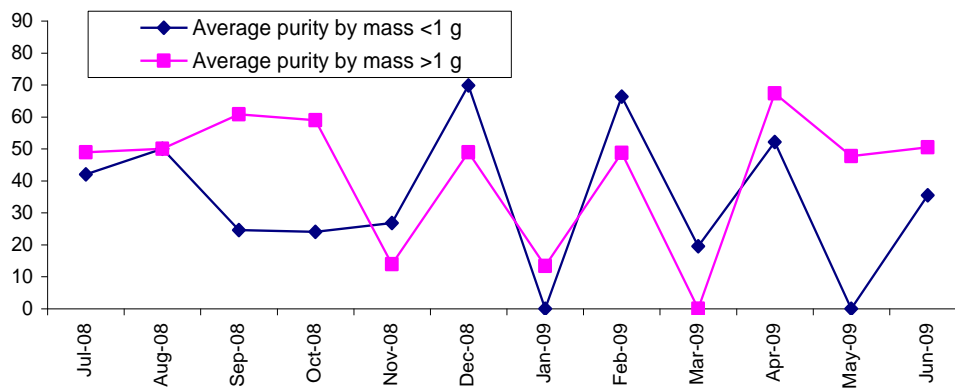
**Figure 19: User reports of changes in cocaine purity in the past six months, 2003-2009**



Source: REU interviews, 2003-2009

The mean purity of all cocaine seizures analysed by the Victoria Police during 2008/2009 was 44% (range=13%-70%), which is comparable to previous years (40% in 2000/2001 to 39% in 2007/2008; range=27-57) (Figure 20).

**Figure 20: Average purity of cocaine seizures by Victorian law enforcement, July 2008-June 2009**

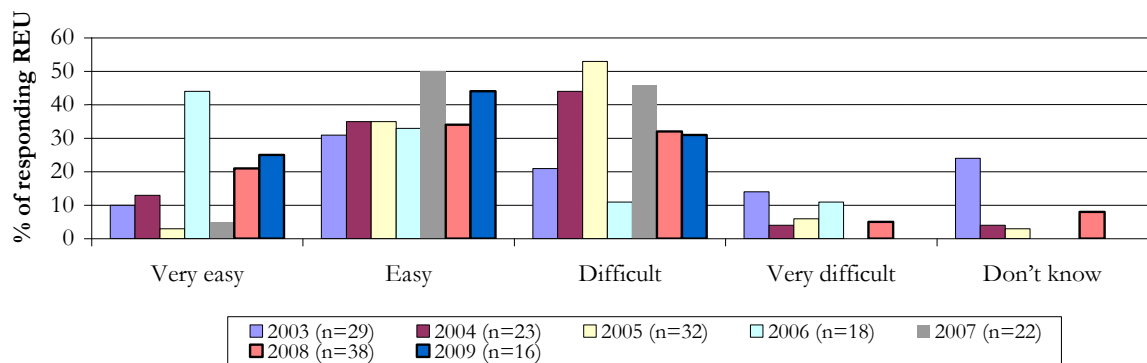


Source: Victoria Police Forensic Services Department

### 6.5 Availability

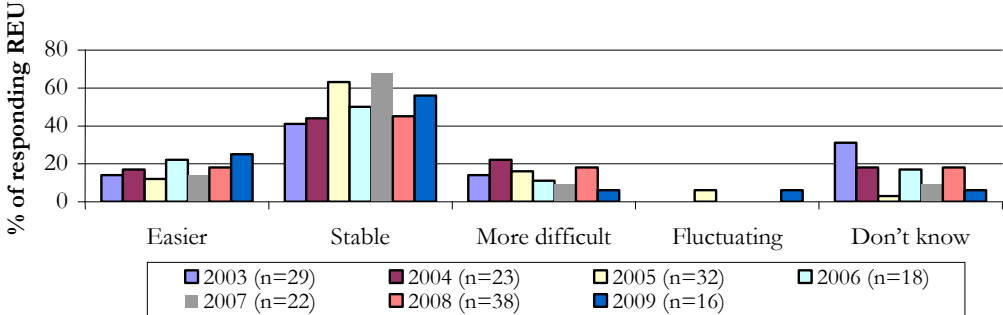
Consistent with previous years, cocaine was seen as being relatively easy to obtain with 69% of recent cocaine users reporting it was very easy (25%) or easy (44%) to obtain (Figure 21). Similarly, over the six months preceding the interview, cocaine availability was regarded as stable (56%) or easier (25%) which was comparable to previous years (Figure 22). Several KE, including a peer group representative and a drug dealer, reported that cocaine was easier to obtain in comparison to 2008.

**Figure 21: Current availability of cocaine, 2003-2009**



Source: REU interviews, 2003-2009

**Figure 22: Changes in cocaine availability in the preceding six months, 2003-2009**



**Source: REU interviews, 2003-2009**

In 2009, REU who commented on the *last* person they purchased cocaine from (n=16) reported obtaining it mainly from friends (56%) or known dealers (25%). This was similar to previous years in which participants were asked the *usual* person REU purchased cocaine from.

In 2009, the REU who commented on the *last* location where they had purchased cocaine (n=16) reported obtaining it within homes; either those of their friends (44%), their own (12%), or their dealers' homes (13%). This was also consistent with previous years in which participants were asked the *usual* location where cocaine was purchased.

## 7 KETAMINE

### 7.1 Ketamine use among REU

Consistent with recent years, reports of recent ketamine use by the 2009 REU sample remained infrequent with only 21% reporting use within the last six months (Table 13) with the median reported age of first use being 21 years (range=16-31).

Even among the 21 participants who reported recent ketamine use, use of the drug was uncommon: on a median of two days in the preceding six months (range=1-10) with only three participants (14%) reporting monthly or more frequent use. Recent ketamine users most commonly quantified their use in terms of ‘bumps’ (82%) reporting using a median of three bumps (range=1-6) during a typical and heavy session of use, typically by snorting (91%). Bingeing on ketamine was uncommon (10%) as was its use with ecstasy (16%) or when coming down from ecstasy (11%).

**Table 13: Patterns of ketamine use among REU, 2003-2009**

<b>Ketamine</b>	2003 (N=100)	2004 (N=100)	2005 (N=100)	2006 (N=100)	2007 (N=100)	2008 (N=100)	2009 (N=100)
Ever used (%)	70	70	56	56	52	55	43
Used last 6 months (%)	51	45	35	29	25	20	21
<b>Of those who had used</b>							
Median days used last 6 months (range)	3.5 (1-104) (n=50)	3 (1-96) (n=45)	3 (1-72) (n=35)	3 (1-14) (n=29)	1 (1-40) (n=25)	3 (1-50) (n=19)	2 (1-10) (n=21)
<b>Median quantities used (points)</b>							
Typical (range)	1 (0.5-5) (n=15)	1 (0.5-4) (n=21)	1.75 (0.5-3) (n=16)	2 (0.5-4) (n=18)	2 (0.1-3) (n=8)	2.5* (0.1-15) (n=12)	0.5 (0.25-1) (n=5)
Heavy (range)	1 (0.5-4) (n=11)	1.5 (0.5-5) (n=16)	2 (1-4) (n=15)	2 (1-4) (n=13)	2.25 (0.1-3) (n=6)	3* (0.1-20) (n=13)	0.5 (0.25-7) (n=5)

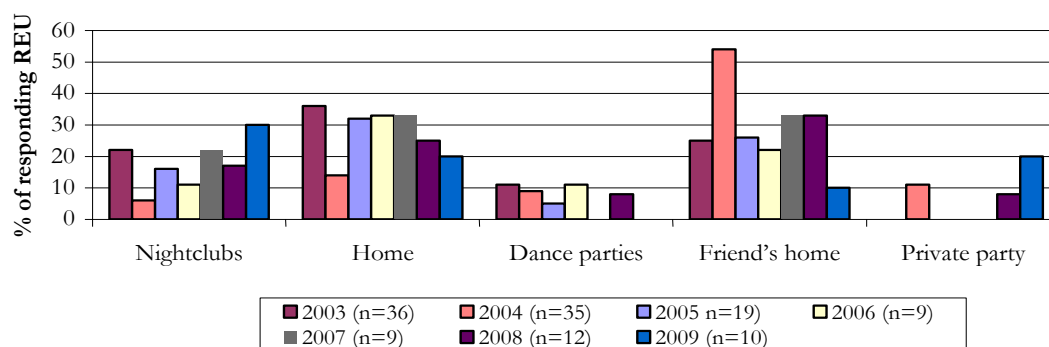
**Source: REU interviews, 2003-2009**

\* In 2008, median quantities described in bumps as only one participant described use in points

In 2009, REU commonly reported their most recent ketamine use as being in nightclubs (30%), in their own homes (20%) or at private parties (20%) (Figure 23), a pattern consistent with that evident in 2008 in relation to participants’ reported *usual* location of use.

KE comments were conflicting, with a health worker suggesting its availability and use among polydrug users had increased, while peer outreach workers reported a decline in its use.

**Figure 23: Location of most recent ketamine use, 2003-2009**



Source: REU interviews, 2003-2009

## 7.2 Ketamine use in the general population

There is only a small amount of data available regarding the prevalence of ketamine use in the Australian general population. Only 0.2% of the respondents to the 2007 NDSHS reported ketamine use in the last 12 months, and only 1.1% of the population reported ever having used the drug (AIHW, 2008). The available Victorian data suggest comparable prevalence of ketamine use, with 0.1% of the Victorian population aged 14 years and older estimated to have used ketamine in the previous 12 months (AIHW, 2008).

## 7.3 Price

Consistent with previous years, the number of REU able to report prices was small ( $n < 10$ ), but they reported that the median price per gram for ketamine was \$200 (Table 14) and that the price had remained stable (40%) or increased (30%) recently (Figure 24). One peer group representative KE reported that ketamine cost \$200 per gram.

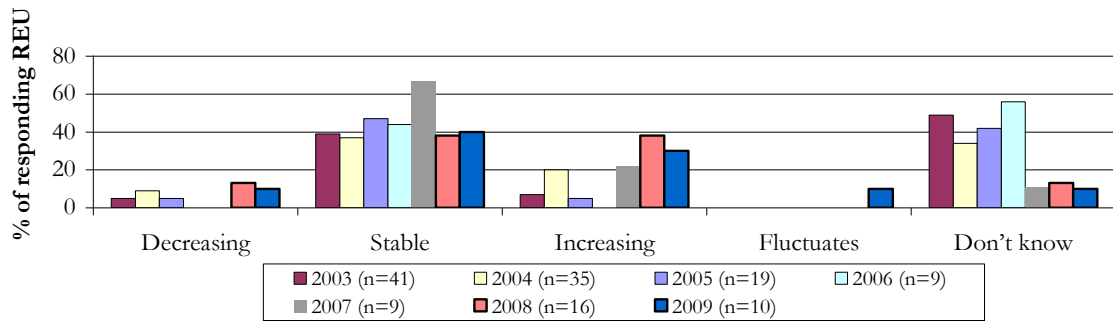
**Table 14: Price of ketamine purchased by REU, 2003-2009**

Ketamine	2003 (N=100)	2004 (N=100)	2005 (N=100)	2006 (N=100)	2007 (N=100)	2008 (N=100)	2009 (N=100)
Median price (\$)							
Point (range)	–	\$22.50 (\$15-\$40) (n=10)	\$25 (n=1)	\$20 (n=1)	–	–	\$25 (n=1)
Gram (range)	\$200 (\$100-200) (n=10)	\$195 (\$150-250) (n=10)	\$180 (\$150-250) (n=13)	\$100 (\$80-\$200) (n=5)	\$200 (\$150-250) (n=6)	\$200 (\$175-\$300) (n=12)	\$200 (\$170-\$25) (n=9)

Source: REU interviews, 2003-2009



**Figure 24: Recent changes in price of ketamine purchased by REU, 2003-2009**

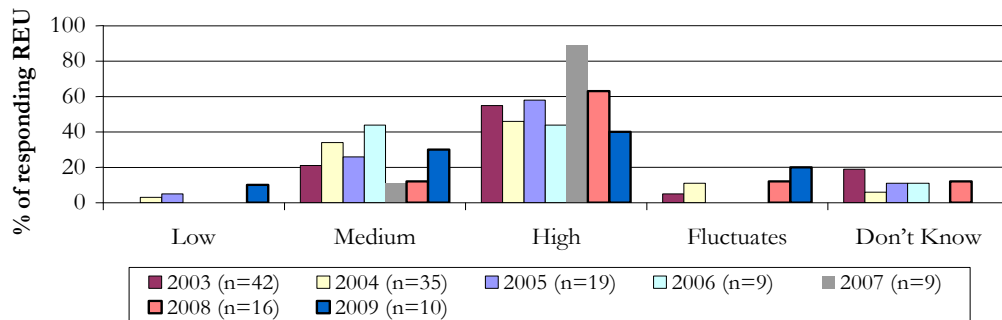


Source: REU interviews, 2003-2009

## 7.4 Purity

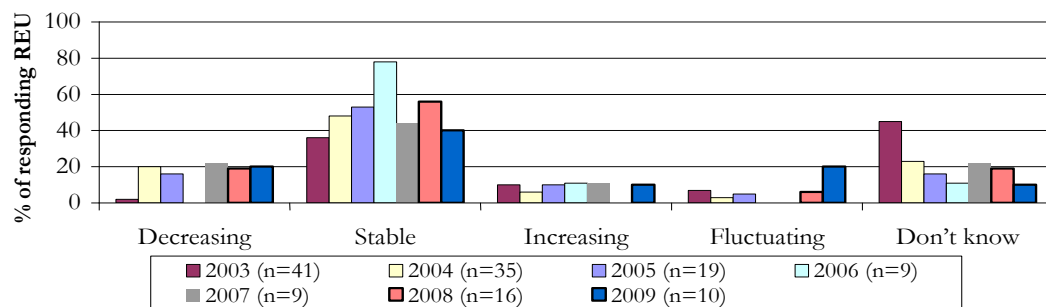
Consistent with previous years, the number of REU able to report the current purity of ketamine in 2009 was small (n=10), but they reported it to be of medium to high strength (70%) (Figure 25). Most indicated that purity was stable or decreasing (Figure 26).

**Figure 25: Current purity of ketamine, 2003-2009**



Source: REU interviews, 2003-2009

**Figure 26: Recent change in ketamine purity, 2003-2009**

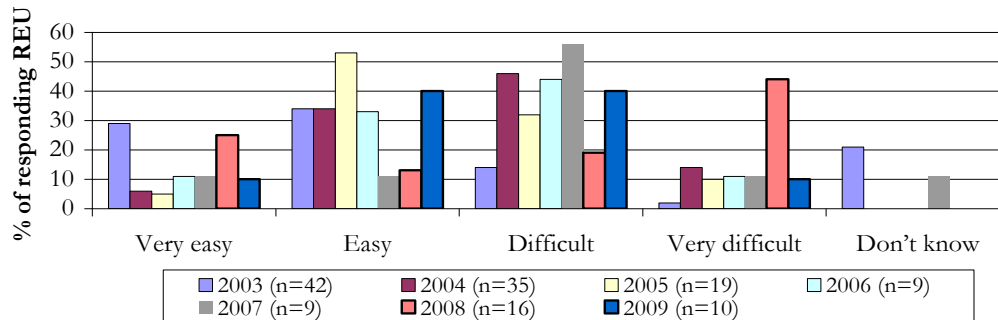


Source: REU interviews, 2003-2009

## 7.5 Availability

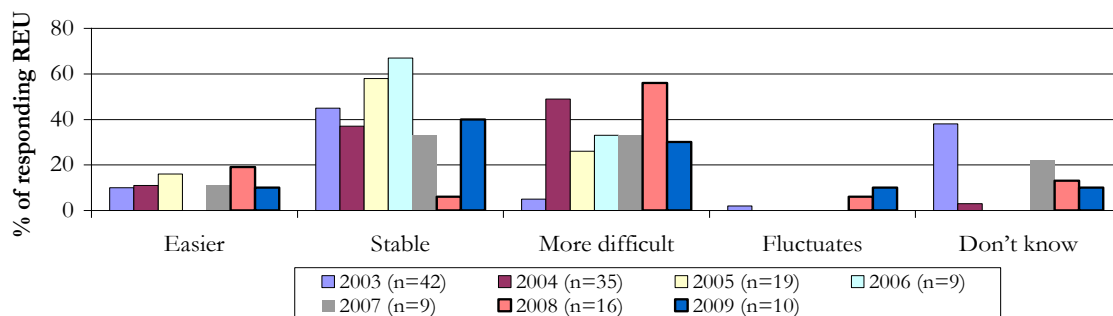
In 2009, the number of REU able to report on the current (Figure 27) and recent (Figure 28) changes in the availability of ketamine was small. The figures for current availability were spread across the responses categories. Most suggested that availability in the previous six months was stable (40%) or more difficult (30%).

Figure 27: Current ketamine availability, 2003-2009



Source: REU interviews, 2003-2009

Figure 28: Changes in availability of ketamine over the past six months, 2003-2009



Source: REU interviews, 2003-2009

In 2009, REU who commented on the *last* person they purchased ketamine from (n=10) reported obtaining it mainly from friends (70%) or known dealers (25%). This was similar to previous years in which participants were asked the *usual* person REU purchased ketamine from.

The REU who commented on the *last* location where they purchased ketamine (n=10) most frequently reported obtaining it from a friend's home (30%) or at an agreed public location (30%). This was similar to previous years in which participants were asked the *usual* place where ketamine was purchase.

## 8 GHB

### 8.1 GHB use among REU

Consistent with recent years, reports of GHB use among the REU sample were infrequent, with only 10% reporting use in the last six months (Table 15) with the median reported age of first use being 21 years (range=17-25).

The number of REU able to report on recent GHB use was low (n=10), and they reported having used irregularly on a median of two and a half days in the preceding six months. All recent GHB users quantified their use in terms of ‘mLs’, reporting using a median of 3-4 mLs during a typical and heavy session of use and all reporting use by the oral route. Bingeing on GHB was uncommon (30%; 3/10) as was its use with ecstasy (20%; 2/10) or when coming down from ecstasy (10%; 1/10).

**Table 15: Patterns of GHB use among REU, 2003-2009**

<b>GHB</b>	2003 (N=100)	2004 (N=100)	2005 (N=100)	2006 (N=100)	2007 (N=100)	2008 (N=100)	2009 (N=100)
Ever used (%)	33	38	33	35	34	20	15
Used last six months (%)	18	27	16	14	10	11	10
<b>Of those who had used</b>							
Median days (range) used last 6 months	4 (1-72) (n=18)	3 (1-72) (n=27)	10 (1-100) (n=16)	2.5 (1-20) (n=14)	2 (1-120) (n=10)	3 (1-15) (n=11)	2.5 (1-5) (n=10)
<b>Median quantities used (ml)</b>							
Typical (range)	14 (1-70) (n=13)	7.5 (1-75) (n=26)	10 (3-50) (n=15)	5 (1.5-15) (n=12)	3 (1.7-30) (n=9)	3 (1-20) (n=10)	4 (0.5-15) (n=9)
Heavy (range)	22.5 (2-130) (n=14)	8 (2-150) (n=26)	20 (3-70) (n=15)	10 (2-25) (n=11)	4 (1.7-30) (n=9)	3 (2-40) (n=10)	5 (1-30) (n=9)

Source: REU interviews, 2003-2009

In 2009, REU reported their most recent GHB use as being in nightclubs (40%), and in their own homes (60%) (Figure 29). GHB, often in combination with alcohol, was considered the main drug of concern among KE due to the risk of overdose. The common factors associated with GHB overdoses was reported as (a) variations in the strength of GHB; and (b) naïve users having poor knowledge of GHB and its risk of overdose, especially in combination with alcohol. Peer outreach workers and first aid services also reported that naïve users were unaware they may

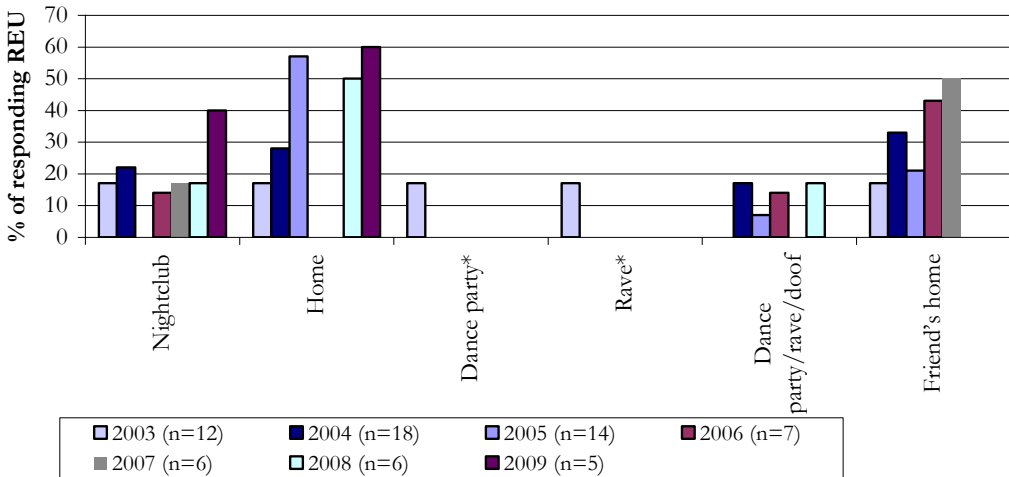
not be consuming GHB but rather its precursors gamma-Butyrolactone (GBL) or more commonly 1,4-Butanediol (1,4BD). 1,4BD and GBL are converted to GHB in the body by liver enzymes, which results in a delayed onset of its effects compared to GHB. Naïve users of GHB may take GHB (when in fact they have consumed the GBL or 1,4B) and become impatient that it has had no effect and take another dose, only for both doses to take effect, resulting in an overdose. Additionally, the combination of alcohol and these precursor chemicals results in delayed and prolonged toxicity from 1,4BD and GBL due to alcohol inhibiting its conversion to GHB (Schneiderei et al., 2000). Peer workers reported a doubling in GHB overdoses compared to last year, mainly among young naïve users. Victoria Police reported the seizure and testing of GHB in the previous six months, in contrast to previous years where “GHB” seizures turned out to be mainly GBL/1,4BD).

KE also suggested that, among drug diversion or chronic dependent clients, GHB use was reported to have increased in order to ‘take the edge off’ while using crystal methamphetamine.

KE working within a popular gay night club reported having seen about one GHB overdose per month, increasing to up to two overdoses over a long weekend. Overdoses generally occurred in the early morning and were typically among males in late 20s to early 30s, often body builders (“gym junkies”). These GHB user demographics were similarly reported by ambulance services. Of concern was that about half of the overdoses occurring in the gay night club were found alone.

KE suggested that previously ambulance attendances for GHB related overdose occurred in the early morning (about 4am) but now had become less predictable. Anecdotal cases have been reported of GHB users consuming high single doses (eg 10-15 mL) in front of ambulance officers to get a free ride home.

**Figure 29: Location of most recent GHB use, 2003-2009**



Source: REU interviews, 2003-2009  
 \* ‘Rave’ and ‘dance party’ categories combined from 2004 onwards

**8.2 GHB use in the general population**

There is only a small amount of data available regarding the prevalence of GHB use in the Australian general population. Only 0.1% of the respondents to the 2007 NDSHS reported GHB use in the last 12 months, and only 0.5% of the population reported ever having used the drug (AIHW, 2008). The available Victorian data suggest comparable prevalence of GHB use, with

0.1% of the Victorian population aged 14 years and older estimated to have used GHB in the previous 12 months (AIHW, 2008).

### 8.3 Price

Very few participants (n=5) from the 2009 sample were able to comment on the current price of GHB; reporting a median price of \$4 per mL (Table 16) with 60% (n=3) reporting the price had remained relatively stable over the six months preceding the interview.

**Table 16: Price of GHB purchased by REU, 2003-2009**

<b>GHB</b>	2003 (N=100)	2004 (N=100)	2005 (N=100)	2006 (N=100)	2007 (N=100)	2008 (N=100)	2009 (N=100)
Median price (\$) ml (range)	\$3 (\$2.50-\$3) (n=5)	\$2.50 (\$2-\$8) (n=12)	\$2.50 (\$1-\$3) (n=12)	\$3 (\$1-\$3) (n=5)	\$3.50 (\$3-\$4) (n=3)	\$4.25 (\$3-\$10) (n=6)	\$4 (1.40-\$7) (n=5)
3 ml (range)	–	–	\$3 (n=1)	–	–	–	–
20 ml (range)	–	–	\$35 (\$30-\$40) (n=2)	\$50 (n=1)	\$80 (n=1)	–	–
Vial 100 ml (range)	\$25 (\$25-\$300) (n=3)	\$119 (\$38-\$200) (n=3)	–	–	–	–	–

Source: REU interviews, 2003-2009

### 8.4 Purity

Only a small number of participants (n=5) were able to comment on the current purity of GHB suggesting purity was high (60%) or medium (40%) and that this was stable over the preceding six months (60%).

### 8.5 Availability

Most (80%) of the small number of participants (n=5) who were able to comment on the current availability of GHB suggested that it was currently easy or very easy to obtain and that availability was stable over the previous six months (60%). KE described GHB as a blue/green liquid, often carried into dance events in fish shaped soy sauce containers provided with Japanese food, ‘bubbles’ (plastic containers traditionally used at weddings for blowing bubbles capable of holding approximately 20-25 mL), key rings, or sandwich bags taped flat across bodies to avoid detection. Ambulance officers reported that ‘fish containers’ were now rarely seen and more commonly seen were 20 mL plastic containers together with 3-5 mL syringes for measuring a dose.

KE from Victoria Police reported that 1,4BD typically was a viscous, colourless liquid; GBL was pale yellow in colour; and GHB was odourless, colourless and in aqueous solution. In 2009, GBL and GHB were tested for the first time since 2004.

In 2009, the number of REU who commented on the *last* person they purchased GHB from was small (n=5) and they reported obtaining it mainly from friends (60%) or known dealers (40%). This was similar to data from previous years reporting the *usual* people GHB was purchased from.

Similarly, REU who commented on the *last* location where they purchased GHB (n=5) reported obtaining it from a friend’s home (40%) or at an agreed public location (40%). This was

consistent with previous years' data which asked the *usual* location where GHB had been purchased rather than the *last* location, namely a friend's home.

## 9 LSD

### 9.1 LSD use among REU

Reports of recent use of LSD were relatively common among the 2009 REU sample with 46% reporting use within the last six months (Table 17), with the median reported age of first use being 19 years (range=15-25). Reports of recent LSD use in 2009 were significantly more frequent compared to 2008, despite REU reporting lower availability (Figure 34) and a higher median price (Table 18).

Consistent with previous years, recent users reported irregular use on a median of two days in the preceding six months. Most (89%) recent LSD users quantified their use in terms of ‘tabs’, using a median of 1-1.5 tabs during a typical and heavy session via the oral route. Four participants reported use as involving ‘drops’. Reports of bingeing on LSD were uncommon (15%; 7/46) as were reports of its use with ecstasy (22%; 9/41) and no-one reported its use when coming down from ecstasy.

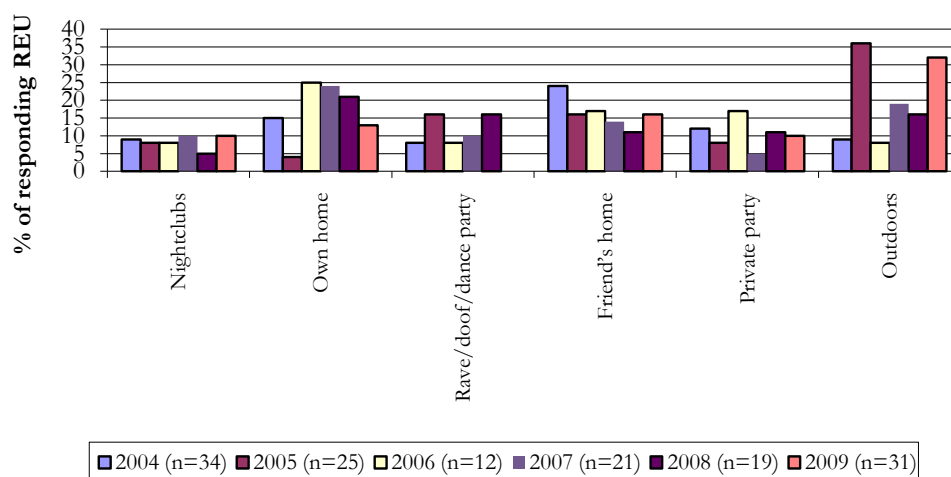
**Table 17: Patterns of LSD use among REU, 2003-2009**

<b>LSD</b>	2003 (N=100)	2004 (N=100)	2005 (N=100)	2006 (N=100)	2007 (N=100)	2008 (N=100)	2009 (N=100)
Ever used (%)	86	72	67	60	70	51	63
Used last 6 months (%)	48	40	38	37	39	29	46
<b>Of those who had used</b>							
Median days used last 6 months (range)	2 (1-70) (n=48)	2 (1-18) (n=39)	3 (1-30) (n=38)	3 (1-20) (n=37)	2 (1-30) (n=39)	2 (1-12) (n=29)	2 (1-20) (n=46)
<b>Median quantities used (tabs)</b>							
Typical (range)	1 (0.5-3) (n=38)	1 (0.5-5) (n=30)	1 (0.5-3) (n=31)	1 (0.5-3) (n=34)	1 (0.5-4.5) (n=31)	1 (0.5-3) (n=28)	1 (0.25-3) (n=41)
Heavy (range)	1 (0.5-15) (n=36)	2 (0.5-50) (n=29)	1.25 (0.5-10) (n=30)	1.75 (0.5-10) (n=34)	1.5 (0.5-6) (n=31)	2 (0.5-9) (n=26)	1.5 (0.25-20) (n=41)

Source: REU interviews, 2003-2009

The 2009 REU sample most commonly reported that their last location of LSD use was in outdoor locations (32%), with other locations such as homes, nightclubs, friends’ homes and private parties all varying between 10%-15%. Interestingly, no-one reported raves as their last location of use of LSD. This finding was inconsistent with KE reports from peer outreach workers who suggested that use of hallucinogens had increased, mainly among outdoor festivals. They contended that part of the reason for the increase in use noted at these festivals was that there was a greater number of larger sized festivals. They also suggested another driver may be increased availability and lower costs (\$10 per dose) of LSD compared to ecstasy.

**Figure 30: Location of most recent LSD use, 2004-2009**



Source: REU interviews, 2004-2009

## 9.2 Hallucinogen use in the general population

There is little information available regarding the prevalence of LSD use in the Australian general population. A 'hallucinogen' category is included in the NDSHS, but this is a broad category encompassing the use of synthetic hallucinogens such as LSD, psilocybin and angel dust and naturally occurring hallucinogens such as magic mushrooms, and datura (AIHW, 2008). The most recent data from the 2007 NDSHS shows that 0.6% of the general Australian population reported the use of this category of drugs in the preceding 12 months. It was further estimated that 6.7% of the general Australian population aged 14 years and older have ever used a 'hallucinogenic' substance, a statistically significant reduction on the 2004 estimate of 7.5% (AIHW, 2008). The estimates of use within the Victorian general population are consistent with national figures, with 0.5% estimated to have recently used a hallucinogenic substance (AIHW, 2008). LSD is specifically asked about in VYADS, with estimates of use slightly higher in this younger cohort than the general Australian population: 5% reported having ever used LSD and 2% reported LSD use in the preceding 12 months (Premier's Drug Prevention Council, 2005). Data from the 2004 VYADS suggested that hallucinogens tend to be used infrequently: 30% of recent users reported using them once a month or more, 32% once or twice a year, and 37% had only used on one occasion in the 12 months prior to interview (Premier's Drug Prevention Council, 2005).

## 9.3 Price

Comparable with previous years, the median reported price per tablet of LSD was \$17 (Table 18) with the price reported as remaining relatively stable (42%) (Figure 31).

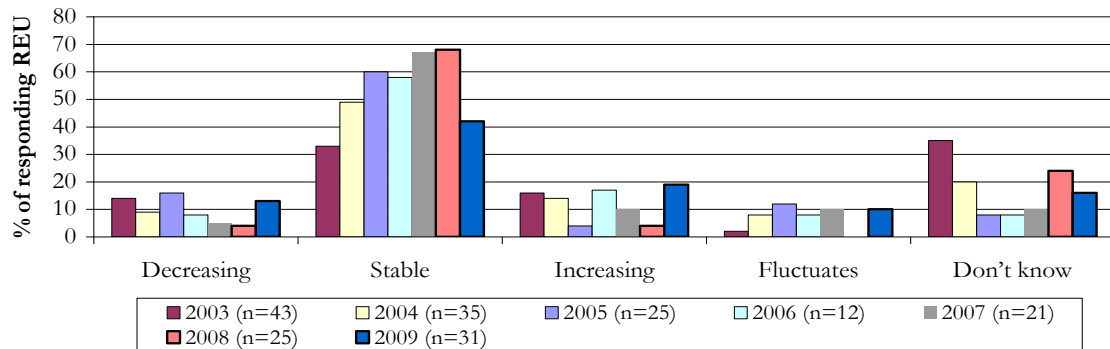


**Table 18: Prices of LSD purchased by REU, 2003-2009**

LSD	2003 (n=18)	2004 (n=33)	2005 (n=25)	2006 (n=11)	2007 (n=19)	2008 (n=19)	2009 (n=28)
Median price (\$ Tab (range))	\$15 (\$6.50-\$25)	\$20 (\$4-\$40)	\$15 (\$5-\$30)	\$12 (\$7.50-\$25)	\$20 (\$10-\$30)	\$15 (\$10-\$40)	\$17 (10-\$35)

Source: REU interviews, 2003-2009

**Figure 31: Recent changes in price of LSD purchased by REU, 2003-2009**

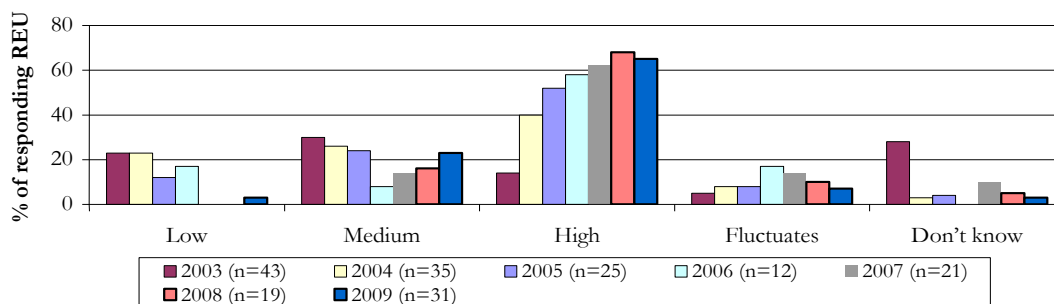


Source: REU interviews, 2003-2009

## 9.4 Purity

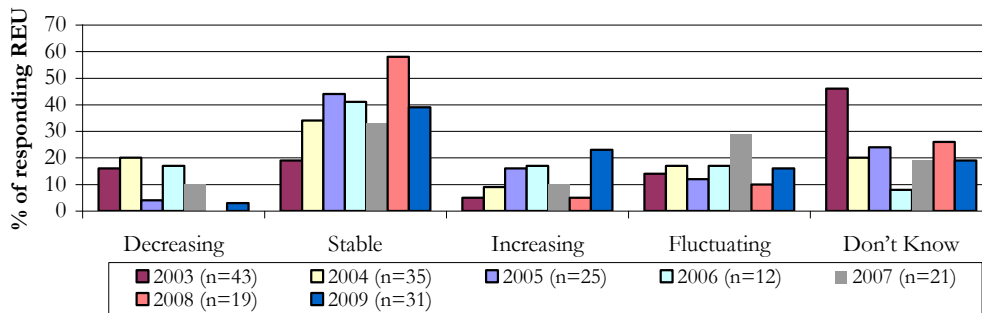
Consistent with previous years, recent LSD users reported the strength of LSD as medium to high (88%) (Figure 32) and the purity was seen as being relatively stable or increasing (62%) over the six months preceding interview (Figure 33).

**Figure 32: REU reports of purity of LSD in the preceding six months, 2003-2009**



Source: REU interviews, 2003-2009

**Figure 33: REU reports of change in purity of LSD in the preceding six months, 2003-2009**

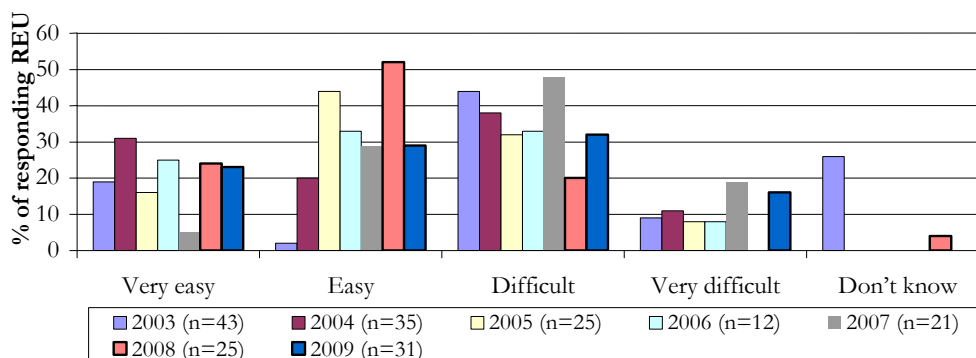


Source: REU interviews, 2003-2009

### 9.5 Availability

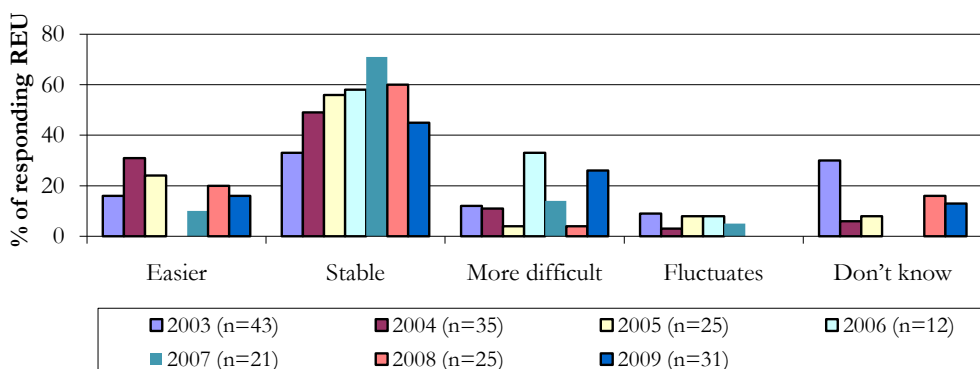
Compared to 2008, reports from recent LSD users (n=31) that LSD was more difficult to source were significantly more frequent in 2009 with 48% (vs 20% in 2008) reporting it was difficult or very difficult to currently obtain LSD (Figure 34) and 26% (vs 4% in 2008) reporting it difficult to source in the six months preceding interview (Figure 35).

**Figure 34: Current LSD availability, 2003-2009**



Source: REU interviews, 2003-2009

**Figure 35: Changes in availability of LSD, 2003-2009**



Source: REU interviews, 2003-2009

In 2009, REU commented on the *last* person they purchased LSD from. Among recent users (n=31), the majority purchased from friends (65%) or a known dealer (23%) the last time they obtained LSD. This was similar to data from previous years reporting the *usual* people LSD was purchased from.

Similarly, REU who commented on the *last* location where they purchased LSD reported obtaining it from private residences, i.e. a friend's home(29%), a dealer's home (13%) or their own homes (13%) or at an agreed public location (29%). This was consistent with data from previous years which asked the *usual* location where LSD was purchased.

## 10 MDA

### 10.1 MDA use among REU

MDA continues to be a drug rarely used among REU with only two participants reporting recently using the drug in 2009 and only one participant able to comment on patterns of use (Table 19). Small numbers preclude further analyses of trends in relation to MDA.

**Table 19: Patterns of MDA use among REU, 2003-2009**

MDA	2003 (N=100)	2004 (N=100)	2005 (N=100)	2006 (N=100)	2007 (N=100)	2008 (N=100)	2009 (N=100)
Ever used (%)	40	37	25	26	29	24	9
Used last 6 months (%)	19	16	8	8	11	9	2
<b>Of those who had used</b>							
Median days (range) used last 6 months	4 (1-72) (n=19)	2.5 (1-15) (n=16)	5.5 (1-24) (n=8)	1 (1-40) (n=8)	2 (1-20) (n=11)	3 (1-48) (n=19)	2 (1-3) (n=2)
<b>Median quantities used (capsules)</b>							
Typical (range)	1 (0.5-2) (n=7)	1 (0.5-4) (n=14)	1 (n=2)	1 (1-3) (n=3)	1 (n=3)	1 (1-3) (n=3)	2 (n=1)
Heavy (range)	1 (0.5-4) (n=8)	1.5 (0.5-8) (n=14)	1 (n=2)	1 (1-6) (n=3)	1 (1-3) (n=3)	2 (1-6) (n=6)	3 (n=1)

Source: REU interviews, 2003-2009

## 11 CANNABIS

### 11.1 Cannabis use among REU

Reports of recent cannabis use remain common among REU with 85% of the 2009 sample reporting use within the last six months (Table 20), with the median reported age of first use being 15 years (range=12-21). Among recent users, cannabis was reportedly used on a median of 24 days (weekly) with 17% reporting use on four or more days a week. Further, 53% of those reporting cannabis use reported using cannabis with ecstasy and 39% reported using cannabis when coming down from ecstasy and 26% reported bingeing on cannabis. Only 29% reported recently swallowing cannabis as an alternative to smoking, with most reporting smoking a joint (63%) or ‘cone’ (28%) the last time they smoked. Of those who reported smoking joints (n=52), 67% reported having one to two joints. Of those who reported smoking cones (n=23), 57% reported smoking two to four cones the last time they used cannabis. Only four participants reported purchasing hash/hash oil in the preceding six months.

**Table 20: Patterns of cannabis use among REU, 2003-2009**

<b>Cannabis</b>	2003 (N=100)	2004 (N=100)	2005 (N=100)	2006 (N=100)	2007 (N=100)	2008 (N=100)	2009 (N=100)
Ever used %	98	98	97	97	98	99	95
Used last six months %	82	78	87	79	82	84	85
<b>Of those who had used</b>							
Median days (range) used last 6 months	55 (1-180)	24 (1-180)	20 (1-180)	48 (1-180)	24 (1-180)	33 (1-180)	24 (1-180)

Source: REU interviews, 2003-2009

### 11.2 Cannabis use in the general population

The 2007 NDSHS provides the most recent national figures regarding the prevalence of cannabis use in the general population. The results of this survey indicate that, in 2007, 9.1% of the Australian population aged 14 years and over reported recent (in the last 12 months) cannabis use (AIHW, 2008), a statistically significant reduction on the 2004 estimate of 11.3% (AIHW, 2008) (see Figure 5). Figures for Victoria were almost identical to the national figures in 2007, with 8.8% reporting use of the drug within the past 12 months (AIHW, 2008).

Data from the 2004 VYADS (Premier’s Drug Prevention Council, 2005) show that cannabis is the illicit drug most frequently reported as being used by the 6,005 young people surveyed. Forty-eight percent of the 16-24 year olds sampled reported lifetime use of cannabis, and 27% reported use in the 12 months preceding the survey. Alcohol and tobacco were reported to be the drugs most commonly used at the same time as cannabis.

### 11.3 Price

REU were asked questions regarding the price, potency and availability of both hydroponic cannabis and bush/naturally-grown cannabis. Prices remained consistent with previous years (Table 21) with the prices being reported as stable in the preceding six months by 63% of recent

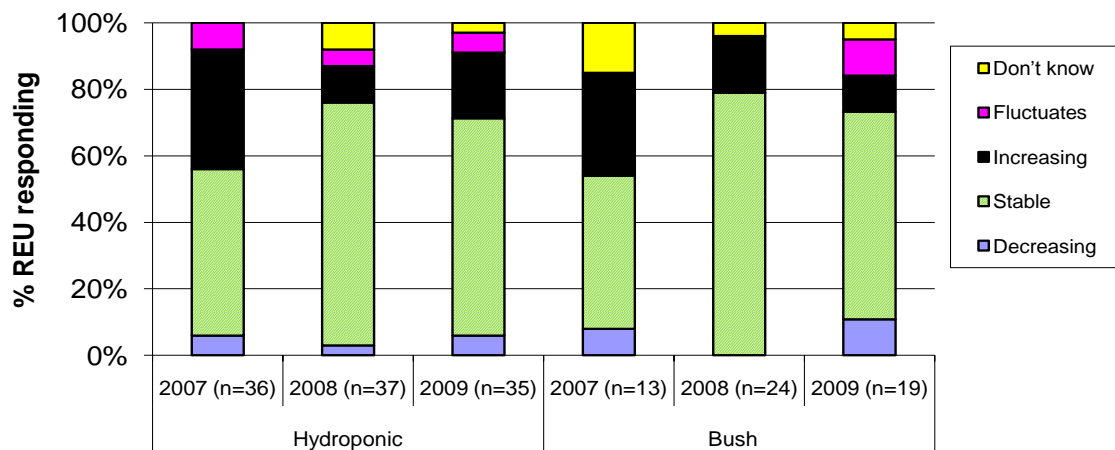
cannabis users for both forms (Figure 36). The small numbers able to comment on the price of bush cannabis makes meaningful interpretation of the data difficult.

**Table 21: Price of cannabis purchased by REU, 2006-2009**

Cannabis	2006 (N=100)	2007 (N=100)	2008 (N=100)	2009 (N=100)
Median price (\$)				
Hydroponic				
gram	\$15 (\$10-\$20) (n=35)	\$20 (\$15-\$50) (n=22)	\$20 (\$10-\$25) (n=34)	\$20 (\$15-\$20) (n=23)
ounce	\$220 (\$180-\$300) (n=28)	\$250 (\$210-\$400) (n=18)	\$250 (\$200-\$300) (n=13)	\$250 (\$200-\$280) (n=17)
Bush				
gram	\$15 (\$10-\$20) (n=11)	\$16 (\$10-\$20) (n=6)	\$20 (\$10-\$30) (n=15)	\$10 (\$10-\$20) (n=8)
ounce	\$200 (\$100-\$280) (n=11)	\$235 (\$150-\$250) (n=6)	\$220 (\$80-\$380) (n=17)	\$200 (\$150-\$250) (n=5)

Source: REU interviews, 2006-2009

**Figure 36: Recent changes in price of hydroponic and bush cannabis purchased by REU, 2007-2009**

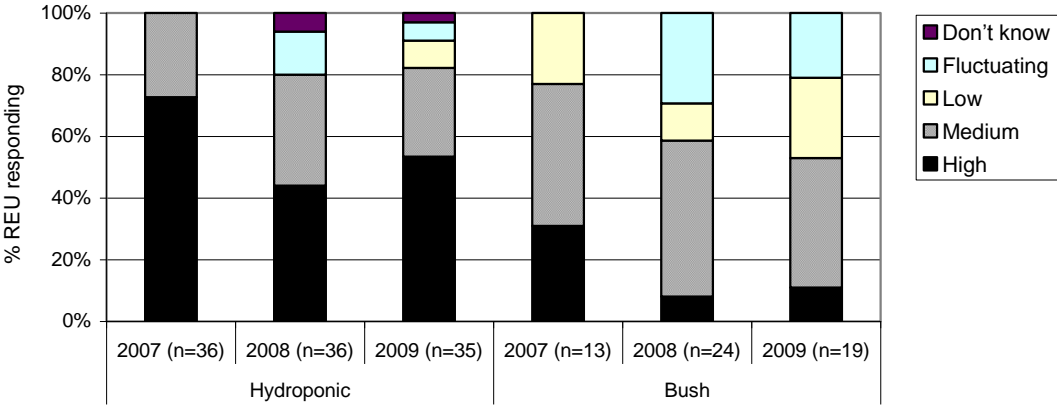


Source: REU interviews, 2007-2009

## 11.4 Potency

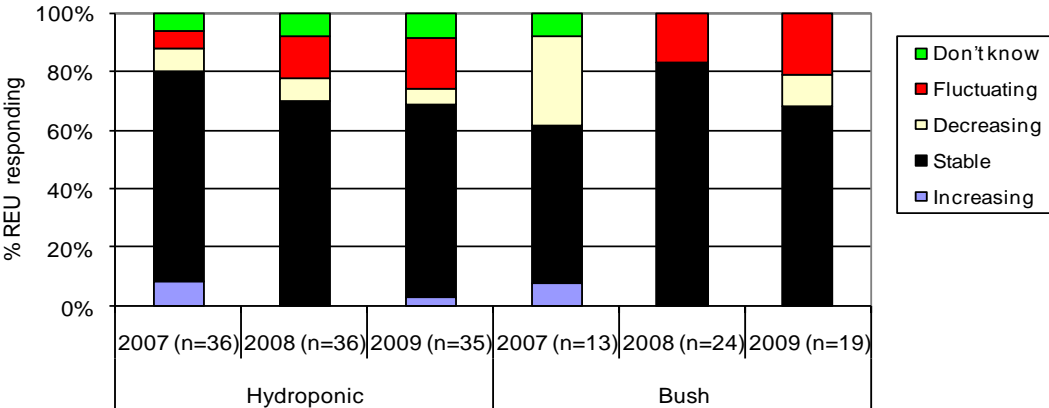
Consistent with previous years, the current potency of hydroponic cannabis was typically reported as being medium to high (83%) and low to medium for bush cannabis (68%) (Figure 37) with potency reported as remaining stable in the preceding six months by 68% of cannabis users for both forms (Figure 38).

**Figure 37: Reports of current hydroponic and bush cannabis potency by REU, 2007-2009**



Source: REU interviews, 2007-2009

**Figure 38: Reports of changes in hydroponic and bush cannabis potency, 2007-2009**

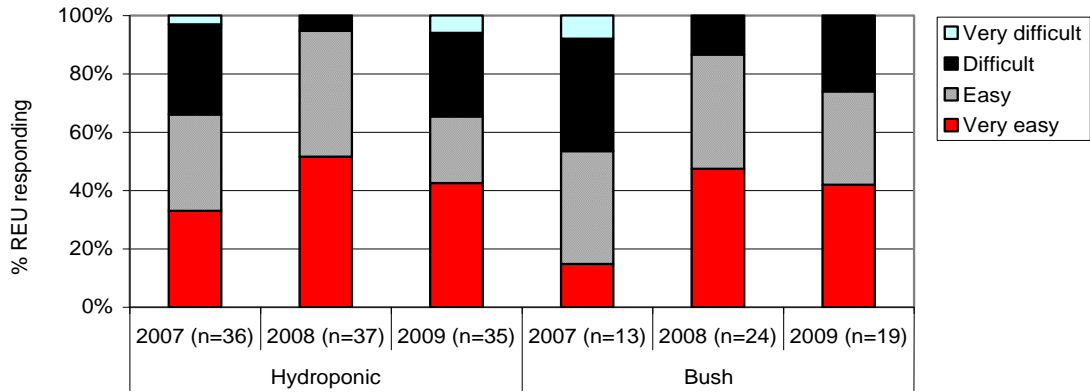


Source: REU interviews, 2007-2009

**11.5 Availability**

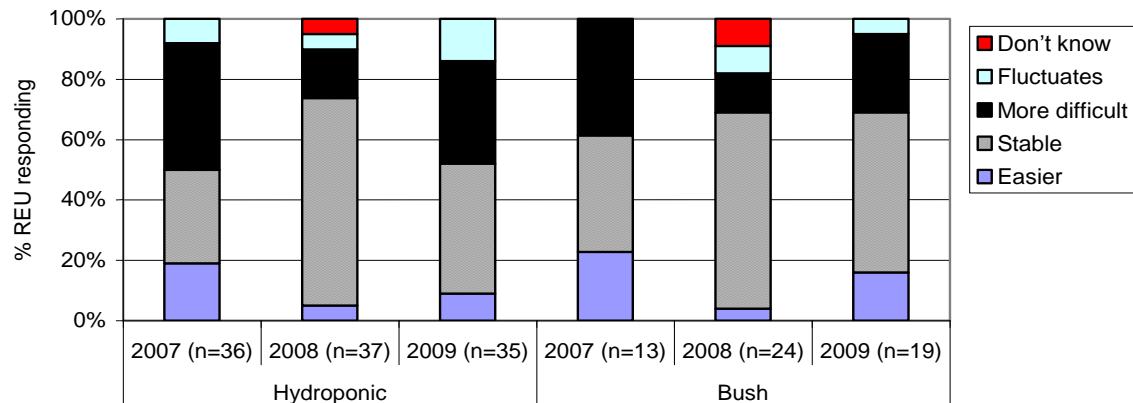
In comparison to 2008, REU in 2009 reported that it was significantly more difficult (defined as difficult and very difficult) to currently purchase hydroponic cannabis (35% vs 5%) (Figure 39) with a trend towards it being more difficult to purchase in the preceding six months (Figure 40). Lower availability was consistent with recent Victorian police activity targeting cannabis supplies.

**Figure 39: Current availability of hydroponic and bush cannabis, 2007-2009**



Source: REU interviews, 2007-2009

**Figure 40: Recent changes in availability of hydroponic and bush cannabis, 2007-2009**



Source: REU interviews, 2007-2009

In 2009, REU reported on the *last* person they purchased cannabis from with most reporting that they had purchased from friends (51% for hydroponic and 79% for bush cannabis) or a known dealer (26% for hydroponic and 16% for bush cannabis). This was similar to data from previous years reporting the *usual* people cannabis was purchased from .

REU who commented on the *last* location where they purchased cannabis reported obtaining it from a friend's home (37% for hydroponic and 47% for bush cannabis) or it was home delivered (20% for hydroponic and 16% for bush cannabis). This was similar to data from previous years reporting the *usual* location where cannabis was purchased.



## 12 OTHER DRUGS

### 12.1 Alcohol use among REU

Consistent with previous years, almost all REU reported alcohol use in their lifetime and in the preceding six months (Table 22), with the median reported age of first alcohol use being 14 years (range=8-19).

Patterns of recent alcohol use remained comparable with previous years with most recent users reporting drinking on a median of 48 days (approximately twice per week) (range=1-180) in the preceding six months, many reporting drinking while using ecstasy (84%), and reporting drinking more than five standard drinks while doing so (81%). However, in comparison to 2008, a significantly greater percentage of recent drug ‘bingers’ (n=37) reported having consumed any amount of alcohol (89% vs 51%) in 2009. In contrast, in 2009, there were fewer reports of using alcohol while coming down from ecstasy (15% vs 32%) compared to 2008.

**Table 22: Patterns of alcohol use among REU, 2003-2009**

Alcohol	2003 (N=100)	2004 (N=100)	2005 (N=100)	2006 (N=100)	2007 (N=100)	2008 (N=100)	2009 (N=100)
Ever used %	99	100	100	99	100	99	100
Used last 6 months %	87	94	97	97	97	97	99
Usually drink alcohol while using ecstasy	57	62	73	74	78	86	84
Usually drink more than 5 standard drinks while using ecstasy*	79	57	60	66	79	82	81
Usually drink while coming down from ecstasy	29	25	35	37	45	32	15
Usually drink more than 5 standard drinks while coming down from ecstasy**	93	48	60	68	71	74	64
Drank alcohol during a ‘binge’***	48	33	45	57	53	51	89

**Source: REU interviews, 2003-2009**

\* Of those who reported usually drinking alcohol while using ecstasy

\*\* Of those who reported usually drinking alcohol while coming down from ecstasy

\*\*\* Of those who reported bingeing on any stimulant in the six months prior to interview

### 12.2 Tobacco

Consistent with previous years, reports of lifetime (91%) and recent (86%) tobacco use were common among REU in 2009 with the median reported age of first use being 15 years (range=10-26). In 2009, recent smokers typically reported smoking on a daily basis.

### 12.3 Benzodiazepines

In 2009, 74% of the REU sample reported benzodiazepine (BZD) use in their lifetime and 53% reported use in the preceding six months, with the majority reporting illicit use (97% lifetime and 94% of recent users). Compared to 2008, there was a significant increase in reports of recent use (53% vs 38%) in 2009.

Among recent illicit BZD users, the median reported age of first use was 19 years (range=14-29) with recent users reporting use on a median of four days (range=1-72) in the preceding six months. Reports of recent bingeing on BZD or use with ecstasy was uncommon (2% and 6% respectively) but BZD use was more commonly reported when coming down from ecstasy (18%).

## 12.4 Antidepressants

In 2009, 21% of the REU sample reported lifetime use of an antidepressant, but only 9% reported use in the preceding six months.

## 12.5 Inhalants

In comparison to 2008, there was a significant increase in the percentage of the REU sample reporting lifetime (62% vs 43%) and recent (41% vs 16%) use of amyl nitrite in 2009. In contrast, the frequency of reports of lifetime or recent use of nitrous oxide remained similar to 2008 (43% lifetime and 22% recent use).

Among those who reported recent amyl nitrite use, the median reported age of first use was 19 years (range=15-36), with use reported as being infrequent (a median of two days in the preceding six months). Reports of bingeing on amyl nitrite or its use with ecstasy were uncommon (2% and 12% respectively) and no one reported using it when coming down from ecstasy. The majority (80%) of recent amyl nitrite users identified as heterosexual with 17% identifying as a gay male or bisexual.

## 12.6 Psilocybin or ‘magic’ mushrooms

In 2009, 62% of the REU sample reported having ever used mushrooms and 27% in the six months preceding the interview, a figure similar to 2008. The median reported age of first use of mushrooms was 19.5 years (range=15-25). Reports of mushroom use were infrequent (a median of two days in last six months; range=1-6) with recent use typically reported as being via the oral route, with no reports of using them while bingeing, with ecstasy or while coming down from ecstasy.

## 12.7 Heroin and other opiates

Similar to 2008, only a small number of the 2009 REU sample reported lifetime use of an opiate (heroin 16%, methadone/buprenorphine 2%, other opiates (licit 6%, illicit 15%), and less than 7% reporting having used any opiates in the preceding six months. In 2009, data was collected specifically on the use of codeine (illicit or licit) that was purchased ‘over the counter’, with 61% reporting lifetime use and 47% reporting use in the preceding six months.

Among recent codeine users the median reported age of first use was 16 years (range=5-23). Reports of codeine use were relatively infrequent with a median of five days (less than once a month) (range=1-48) reported in the preceding six months.

## 12.8 Pharmaceutical stimulants

Forty-one percent of the 2009 REU sample reported having ever used any pharmaceutical stimulant with the majority (90%) reporting having used it illicitly. Among the small number of recent illicit pharmaceutical stimulant users able to comment (n=14), the median reported age of first use was 20 years (range=13-27) with reported use being infrequent (median days of use was zero, range=0-13 days) involving a median of four pills (range=1.5-10).

## 12.9 Other drugs – Khat and ‘designer drugs’

No participants in 2009 reporting using Khat in the preceding six months compared to five participants in 2008 (Khat refers to the leaves and young shoots of the plant species *Catha edulis* grown predominantly in East Africa (World Health Organization (WHO), 2006).

In 2009 a significantly larger percentage of REU reported recent use of ‘designer drugs’ (e.g. 2CB, DMT, Mephedrone) compared to 2008 (12% vs 2%).

This finding was consistent with increased interest in designed dugs noted in KE interviews. Several KE reported either an increased discussion about ‘designer drugs’ on online forums (e.g. Bluelight, [www.bluelight.ru](http://www.bluelight.ru)) or increased use among those over 30 years of age – older REU

looking for something new to try. An increase in the use of dextromethorphan (DXM) had also been reported among drug diversion or chronic dependent clients.

Polydrug use remains a common concern among KE, especially those involving alcohol, amphetamines and GHB. Among drug diversion or chronic dependent clients, the use of up to five different drugs concurrently, especially depressants (e.g. GHB/ketamine/benzodiazepine or ecstasy/alcohol/benzodiazepine) was reported as common practice.

## 13 DRUG INFORMATION-SEEKING BEHAVIOUR

For the last four years, the REU sample has been asked about the methods used to determine the content and purity of ecstasy pills and what REU suspected their ecstasy tablets also contained as adulterants.

Compared to 2008, a significantly higher percentage of the 2009 REU sample reported always finding out the content/purity of ecstasy but a significantly smaller percentage reported using testing kits to do so (Table 23). This apparent contradiction resulted from REU reporting that they were relying more on friends or dealers to gather information about ecstasy purity/content in 2009. The pattern of suspected adulterants, generally reported as methamphetamines, ketamine or other chemicals from varied origins, was almost identical to that observed in 2008.

**Table 23: Content and testing of ecstasy tablets by jurisdiction, 2006-2009**

	2006 (N=100)	2007 (N=100)	2008 (N=100)	2009 (N=100)
<b>Find out the content/purity of ecstasy</b>				
Always (%)	33	23	14	47
Most times (%)	27	21	12	15
Half the time (%)	5	7	4	9
Sometimes (%)	21	20	25	22
Never (%)	14	29	45	7
<b>Find out content/purity via*</b>				
Friends who have taken it (%)	78	70	71	79
Dealers (%)	71	41	55	62
Testing kits (%)	30	10	24	12
Websites (%)	59	42	38	44
Information pamphlets (%)	0	0	0	0
Personal experience (%)	48	9	7	3
Other people who have taken it (%)	38	24	18	18
<b>Bought ecstasy with different content/purity than expected#</b>				
Always (%)	-	-	1	4
Most times (%)	-	-	1	3
Half the time (%)	-	-	12	12
Sometimes (%)	-	-	53	63
Never (%)	-	-	33	18
<b>What substance other than MDMA suspected to be in the purchased ecstasy tablet#</b>				
Caffeine (%)	-	-	4	8
Meth/amphetamine (%)	-	-	53	56
MDA (%)	-	-	13	9
Ketamine (%)	-	-	31	30
Opiates (%)	-	-	14	8
2CI/2CB (%)	-	-	6	3
PMA (%)	-	-	6	0
Other (%)	-	-	24	40

**Source: REU interviews, 2006-2009**

\* Among those who find out about the content/purity of ecstasy

# Questions asked only from 2008

## 14 HEALTH-RELATED ISSUES

### 14.1 Overdose and drug-related fatalities

From 2008, participants were asked if they had overdosed on a stimulant or depressant in the last 12 months.

Similar to 2008, 12 participants in 2009 reported that they had overdosed on any stimulant drug(s) in the last 12 months, a median of two times (range=1-4), with ecstasy being the main drug reported as responsible (92%) and reported partying a median of 2.5 hours (range=2-10) before overdosing. The location of the last overdose varied from nightclubs (50%), private parties or raves/doofs (34%). The main symptoms experienced during the overdose were vomiting, panic or delirium/confusion (both 42%) and increased heart rate or increased body temperature (both 33%). Of the 10 participants who commented on the treatment they received or sought for their overdose, the majority (90%) received no specific treatment.

The REU sample reported overdose on any depressant drug(s) in the last 12 months more frequently with 25 of the sample reporting having done so a median of six times (range=1-30), with a reported partying a median of 5.5 hours (range=2-9) before overdosing. The majority (80%) reported alcohol as being the main drug responsible with heroin (8%) or ketamine (8%) being responsible for the remainder of the overdoses. The main symptoms reported as being experienced during the overdose were vomiting (84%), collapsing (36%) or losing consciousness (32%) Locations where participants reported overdosing included private parties (32%), own home (24%), nightclubs (20%), or a friend's home (16%).

Among those who reported a recent overdose on a depressant drug, 64% received no specific treatment with only one participant receiving CPR from a friend/peer and one participant reporting that an ambulance was called.

Although GHB was not reported as a main drug associated with overdoses in the REU sample, many KE were concerned with the rise in GHB related overdoses in recent times (see above).

### 14.2 Help-seeking behaviour

Sixteen of the 2009 REU sample reported that they had accessed a health or medical service in relation to their ERD use in the six months preceding interview. These participants reported most commonly accessing a general practitioner (GP) (63%), drug/alcohol worker or psychologist (both 25%), or a psychiatrist, counsellor or emergency department (both 19%).

Respondents reported accessing these services in relation to a range of drugs and issues. For example, those accessing a GP (n=10) reported doing so in relation to ecstasy (n=4) and alcohol (n=2) as the main drugs of concern for issues including acute medical problems and mental health issues.

## 14.3 Drug treatment

### 14.3.1 Alcohol and Drug Information System

Data on people seeking treatment from specialist alcohol and other drug agencies<sup>3</sup> in Victoria is collected via the ADIS. Similar to previous years, during the 2007/2008 financial year, 49,079 courses of treatment were delivered to 30,036 clients<sup>4</sup> in Victorian specialist alcohol and other drug services. Of these, approximately 8% of the total courses of treatment were delivered to approximately 10% of clients for amphetamine and other stimulant-related<sup>5</sup> problems, making amphetamines the fourth most frequently occurring main presenting drug problem after alcohol (43%), cannabis (22%), and heroin (13%). Only 0.1% of the courses of treatment were delivered to 0.2% of clients for hallucinogens<sup>6</sup> (ADIS Database, Victorian Department of Human Services, unpublished data).

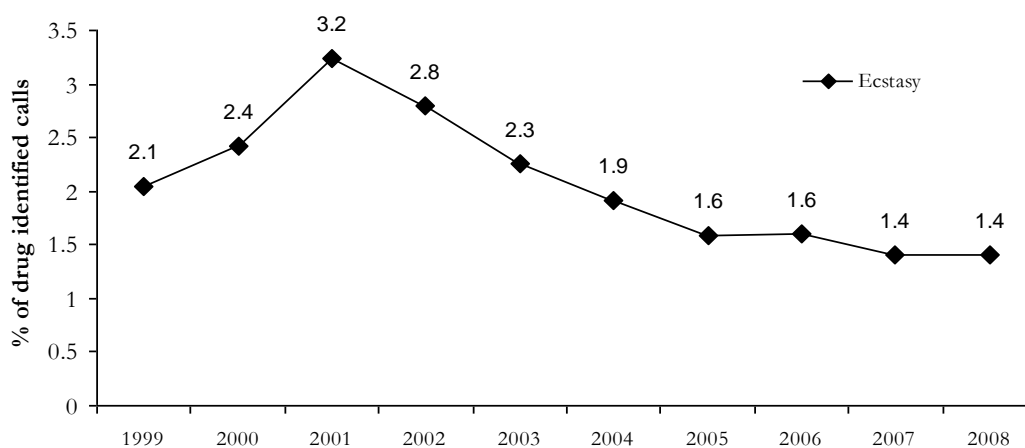
### 14.3.2 DirectLine

DirectLine is a 24-hour specialist telephone service in Victoria (operated by Turning Point Alcohol & Drug Centre) that provides counselling, referral and advice about drug use and related issues. All calls to DirectLine are logged to an electronic database that can provide information about caller drugs of concern, calls from drug users and calls about drug users. This report presents data for the period 1999-2008.

#### *Ecstasy*

During 2008, DirectLine responded to 343 calls where ecstasy was identified as a drug of concern. This represents less than 1.4% of all drug-identified calls to DirectLine in that year (Turning Point Alcohol & Drug Centre Inc., unpublished data). The percentage of drug-related calls where ecstasy was identified has steadily declined from 2001 to 2005, after which time the reported proportions remained stable (Figure 41).

**Figure 41: DirectLine calls where drug of concern identified as ecstasy, 1999-2008**



Source: DirectLine, Turning Point Alcohol & Drug Centre Inc. (unpublished data)

<sup>3</sup> Federal and state government funded.

<sup>4</sup> Clients in specialist alcohol and drug services include both drug users and non-users. Non-users may include partner, family or friends.

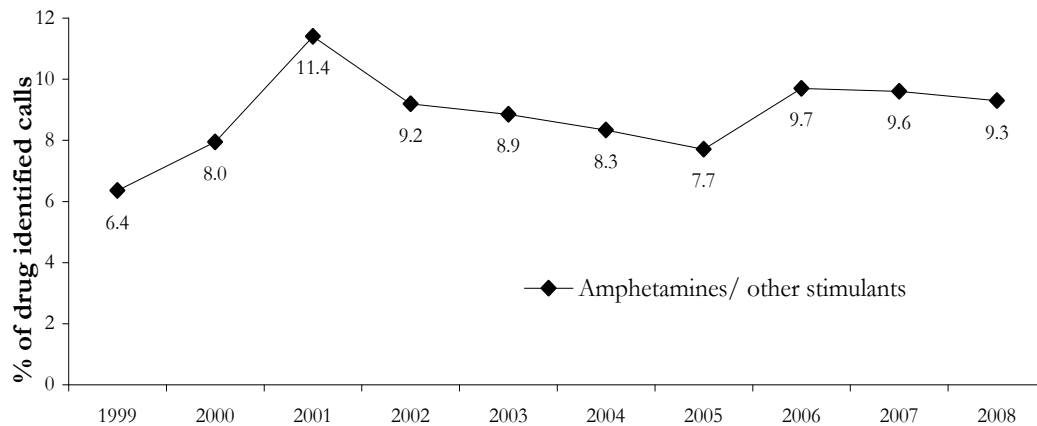
<sup>5</sup> Other stimulants include substances such as ecstasy and cocaine.

<sup>6</sup> Hallucinogens include LSD, stimulants/other hallucinogens.

### *Methamphetamine*

During 2008, DirectLine responded to 2,310 calls where amphetamines and/or other stimulants were identified as a drug of concern. This represents approximately 9% of all drug-identified calls to DirectLine in that year (Turning Point Alcohol & Drug Centre Inc., unpublished data). The proportion of drug-related calls where amphetamines and/or other stimulants were identified gradually declined from 2001 to 2005; however, this proportion increased noticeably in 2006 and now remains relatively stable (Figure 42).

**Figure 42: DirectLine calls where drug of concern identified as amphetamines and/or other stimulants, 1999-2008**

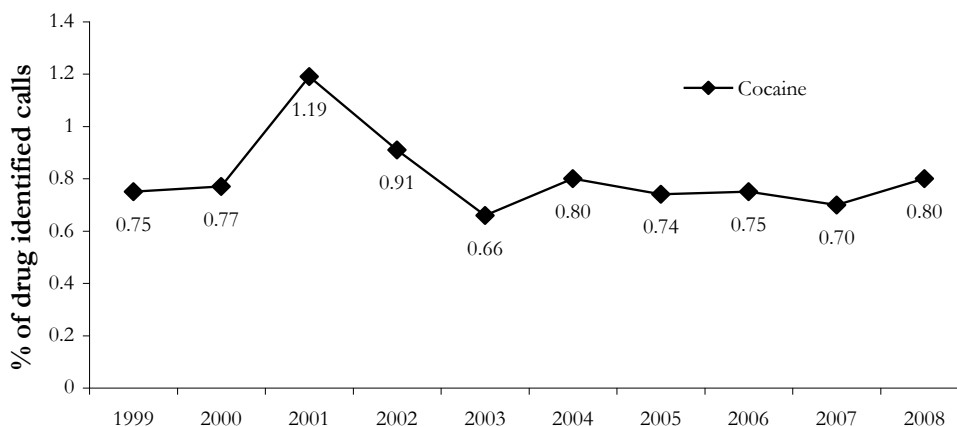


Source: DirectLine, Turning Point Alcohol & Drug Centre Inc. (unpublished data)

### *Cocaine*

During 2008, DirectLine responded to 205 calls where cocaine was identified as a drug of concern. As in previous years, this represents less than 1% of all calls made to DirectLine during that time where a drug of concern was cited (Turning Point Alcohol & Drug Centre Inc., unpublished data). The proportion of drug-related calls where cocaine was identified has remained very low ( $\leq 1\%$ ) during recent years (Figure 43).

**Figure 43: DirectLine calls where drug of concern identified as cocaine, 1999-2008**

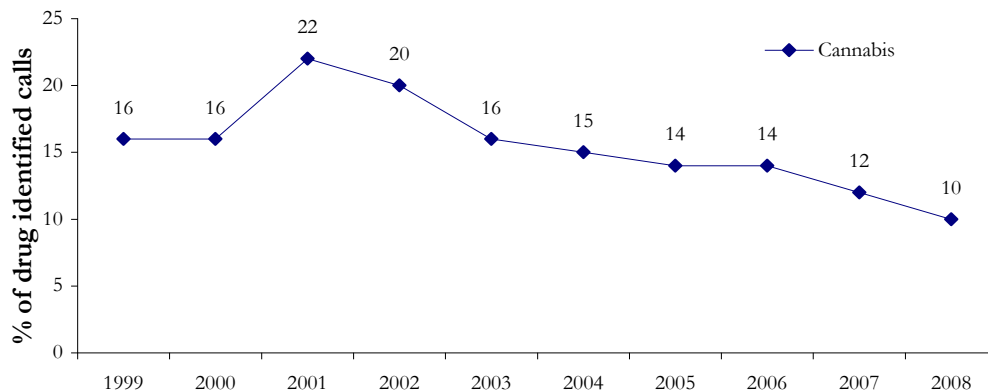


Source: DirectLine, Turning Point Alcohol & Drug Centre Inc. (unpublished data)

## Cannabis

During 2008, DirectLine responded to 2,565 calls where cannabis was identified as a drug of concern. This represents approximately 10% of all drug-identified calls to DirectLine during that year (Turning Point Alcohol & Drug Centre Inc., unpublished data). The proportion of drug-related calls where cannabis was identified as a drug of concern has decreased since 2001 (Figure 44).

**Figure 44: DirectLine calls where drug of concern identified as cannabis, 1999-2008**



Source: DirectLine, Turning Point Alcohol & Drug Centre Inc. (unpublished data)

### 14.3.3 Ambulance attendances at non-fatal drug overdoses and other episodes

Turning Point Alcohol & Drug Centre manages an electronic drug-related ambulance attendance database, comprising information obtained from Ambulance Victoria records (Dietze et al., 2000). Reliable data are available from June 1998 (with missing data for the periods May-July 2001, October 2002-February 2003, and June-July 2004). Although the database includes overdose-related calls for all types of drugs, the dataset is best suited to the monitoring of non-fatal heroin-related overdose, due to the availability of a biological marker of heroin involvement (i.e. the administration of Narcan and subsequent patient response). Data for the period January 2006-December 2008 are presented in this report.

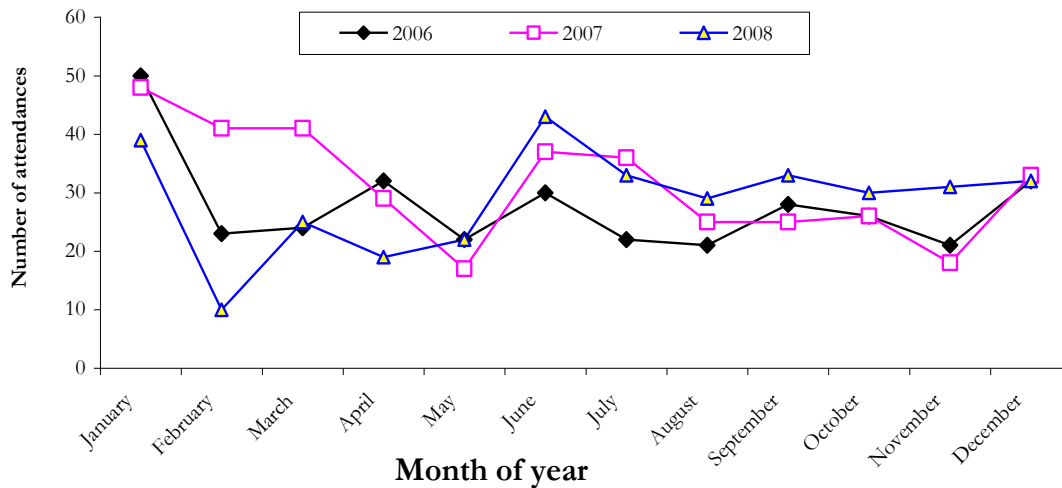
## Ecstasy

Ambulance attendances where ecstasy use was recorded ranged between approximately 10-50 per month during 2006-2008, peaking in January of each year with the total attendances being similar across this period (range=331-376) (Figure 45).

In 2008, among the 346 total attendances where ecstasy use was mentioned the median age of cases was 22 years, which is comparable to previous years (range=22-24 years between 2002-2008) (Turning Point Alcohol & Drug Centre Inc., unpublished data).



**Figure 45: Monthly totals of ambulance attendance where ecstasy was mentioned in Melbourne, January 2006-December 2008**

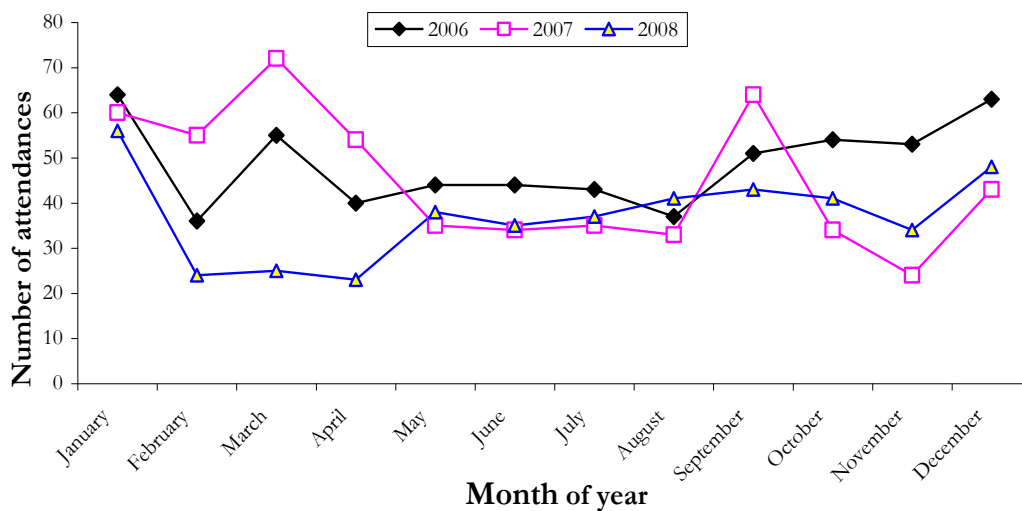


Source: Ambulance Victoria and Turning Point Alcohol & Drug Centre Inc.

*Amphetamines*

Ambulance attendances where amphetamine use was recorded fluctuated, ranging between 24 and 72 per month between January 2006 and December 2008 (Figure 46). During this period there was a decrease in the total number of presentation from 584 cases in 2006 to 445 cases in 2008. In 2008, the median age of cases was 26 years which was similar to previous years (range=25-27 years between 2002-2008) (Turning Point Alcohol & Drug Centre Inc., unpublished data).

**Figure 46: Monthly totals of ambulance attendance where amphetamines were mentioned in Melbourne, January 2006-December 2008**



Source: Ambulance Victoria and Turning Point Alcohol & Drug Centre Inc.

## Cocaine

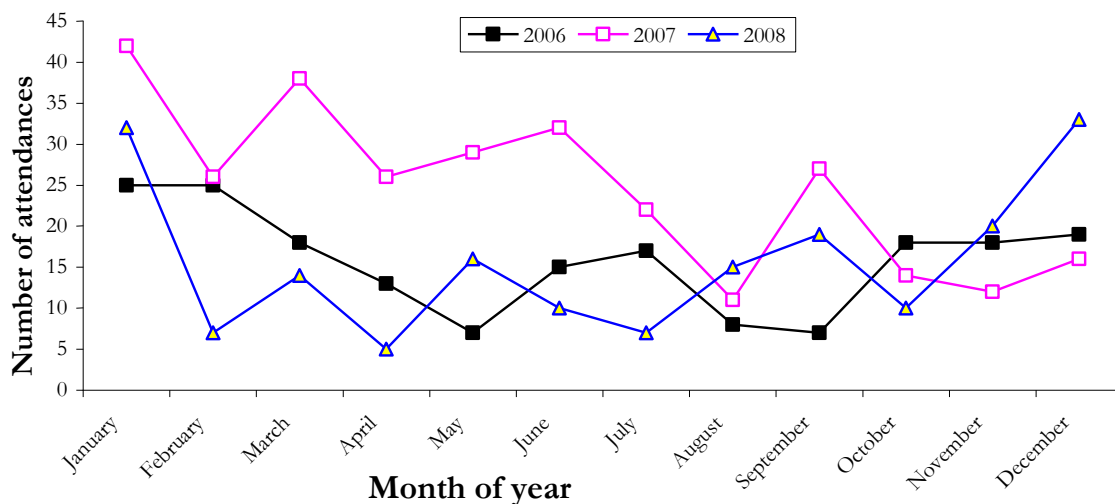
In 2008, there was a total of 57 ambulance attendances in Melbourne where cocaine use was mentioned with annual numbers of presentations across 2006-2008 being similar (range=57-61). The median age of cases in 2008 was approximately 28 years which is a significant increase from 2002 where a median age of 24 years was reported (range=24-28 years between 2002-2008) (Turning Point Alcohol & Drug Centre Inc., unpublished data). As noted in previous years (Jenkinson & Quinn, 2007; Jenkinson & O'Keefe, 2005 & 2006; Jenkinson, Miller & Fry, 2004), these numbers are too small to provide clear trends, but do suggest that people who are using cocaine in Melbourne are not coming into contact with the ambulance service.

## GHB

Ambulance attendances where GHB use was recorded ranged between seven and 42 per month between January 2006 and December 2008 with the total number of attendances in 2008 being similar to 2006 but lower than in 2007 (range=188-295) (Figure 47). In 2008, the median age of cases was 22 years, which was comparable to previous years (range=21-24 years between 2002-2008 (Turning Point Alcohol & Drug Centre Inc., unpublished data).

Representatives from St John's First Aid services reported GHB (usually with alcohol) as representing a significant overdose risk, with only one to two serious GHB overdoses needed to significantly reduce the resources available at any given event that they attend. Among the 24 events that were attended in the past year, approximately 25% were related to an illicit drug and of these, 15%-20% were GHB related.

**Figure 47: Monthly totals of ambulance attendance where GHB was mentioned in Melbourne, January 2006-December 2008**



Source: Ambulance Victoria and Turning Point Alcohol & Drug Centre Inc.

## 14.4 Other self-reported problems associated with ERD use

From 2007, participants were asked to report if their drug use had caused any repeated or recurrent problems in the last six months, including relationship/social problems, legal implications, problems related to responsibilities at home, work or school, or problems involving

harm to themselves and/or other people. Participants were also asked to attribute such problems to the use of particular drugs.

Similar to previous years, 61% of 2009 sample reported that their drug use had caused any type of problem in the preceding six months. Similar percentages reported that their drug use had caused problems with family, friends and colleagues (26%), had put themselves or others in risky situations that may have caused harm (34%), or had interfered with responsibilities at home, work or school (38%). Only 4% reported having recent drug-related legal problems.

The main drugs identified by the REU as being responsible for drug-related non-legal problems were alcohol (range=12%-68%), ecstasy (range=21%-46%), or cannabis (range=9%-16%).

The criminal activity of the REU sample and KE reports regarding this issue are discussed below in Chapter 16.

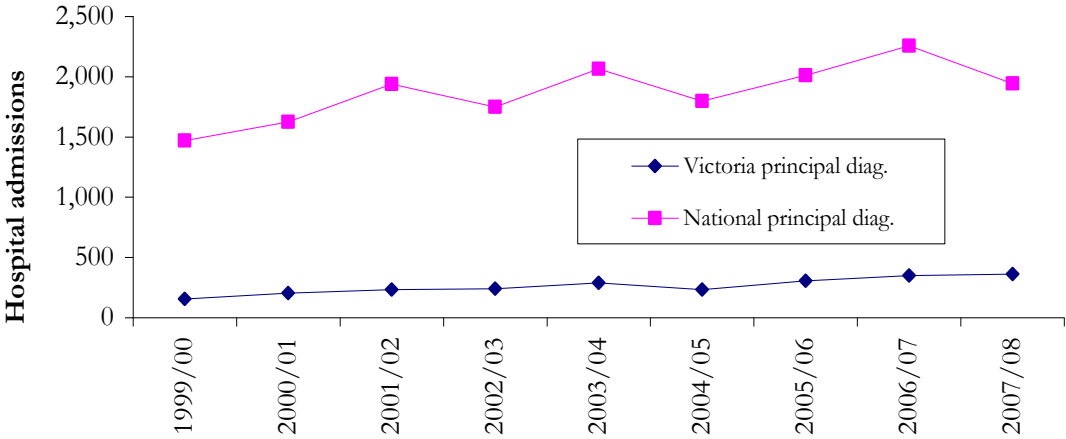
### 14.5 Hospital admissions

The NHMD is compiled by the AIHW. It is a collection of electronic records for admitted patients in public and private hospitals in Australia. ‘Principal diagnosis’ (the diagnosis established after study to be chiefly responsible for occasioning the patient’s episode of care in hospital) has been reported. This report presents drug-related (amphetamine, cocaine and cannabis) hospital admissions for Victoria and Australia, 1999/2000-2007/2008 (Roxburgh & Burns, 2008; AIHW, 2009).

#### 14.5.1 Amphetamines

Amphetamine-related hospital admissions for Victoria and Australia (among persons aged 15-54 years) are presented in Figure 48. It is evident from this data that the number of amphetamine-related hospital admissions in Victoria has generally been stable to increasing over the period of analysis.

**Figure 48: Amphetamine-related hospital admissions, Victoria and national, 1999/2000-2007/2008**

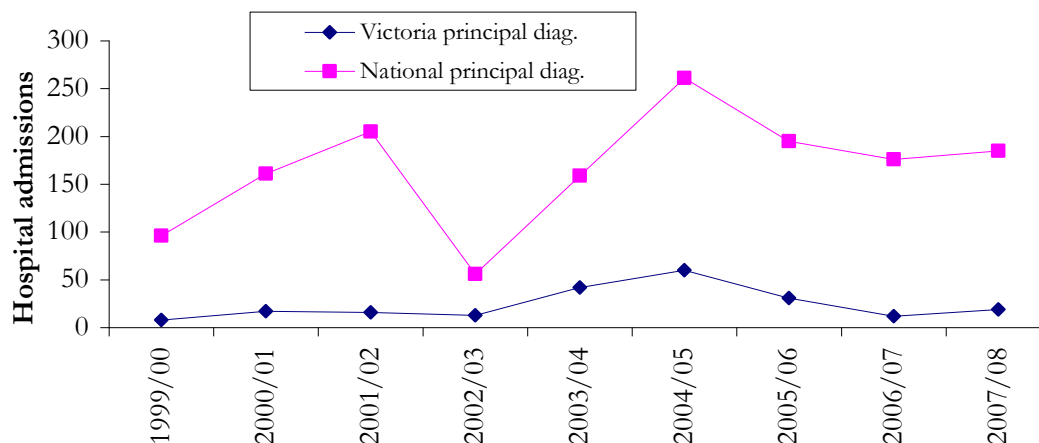


Source: Roxburgh & Burns (2009); AIHW

### 14.5.2 Cocaine

Cocaine-related hospital admissions for Victoria and Australia (among persons aged 15-54 years) are presented in Figure 49. The number of cocaine-related hospital admissions in Victoria and Australia have continued to decrease since 2004/2005 and has remained relatively stable thereafter.

**Figure 49: Cocaine-related hospital admissions, Victoria and national, 1999/2000-2007/2008**

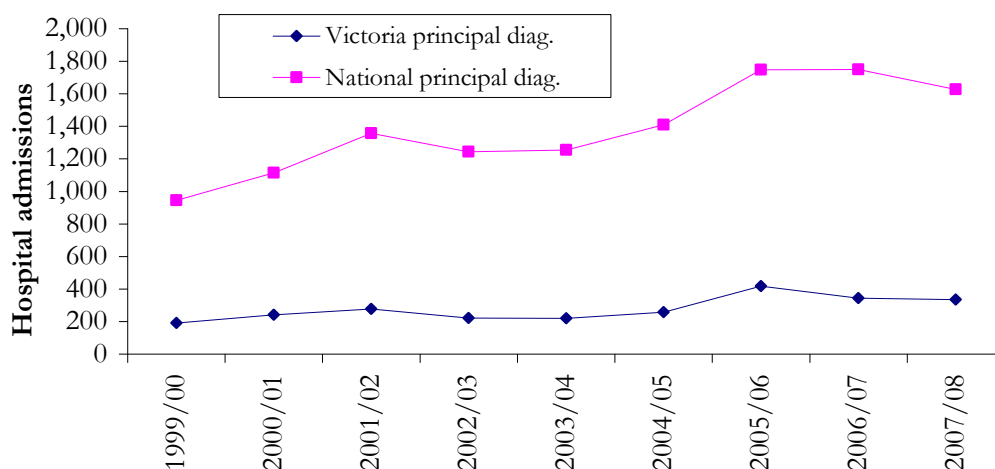


Source: Roxburgh & Burns (2009); AIHW

### 14.5.3 Cannabis

Cannabis-related hospital admissions for Victoria and Australia (among persons aged 15-54 years) are presented in Figure 50. It is evident from this data that, following a period during which the number of cannabis-related hospital admissions in Victoria remained relatively stable, in 2005/2006, this total increased considerably. After this time, the number of admissions remained relatively stable.

**Figure 50: Cannabis-related hospital admissions, Victoria and national, 1999/00-2007/08**



Source: Roxburgh & Burns (2009); AIHW

## **14.6 Mental and physical health problems and psychological distress**

### **14.6.1 Mental health problems and psychological distress (K10)**

From 2006, the EDRS study has included the 10-item Kessler Psychological Distress Scale (K10), a questionnaire designed for measuring the level of distress and severity associated with psychological symptoms that project participants may have experienced in the preceding four weeks (Kessler et al., 2002).

All participants in the 2009 REU sample completed the scale, producing a mean score of 19 (range=10-37) for the sample. K10 scores ranging from 10-15 are typically classified as low or no distress, 16-21 as moderate distress, 22-29 as high distress, and 30-50 as very high distress. According to this classification, 30% of participants were in the low range, 39% in the moderate range, 26% in the high range, and 5% in the very high range. Compared to the 2007 NDSHS, there was a significantly higher percentage of REU scoring moderate to high distress (65% vs 29%), with 45% of the 678 participants in the NDSHS being in the low range, 21% in the moderate range, 8% in the high range, and 2% in the very high range (AIHW, 2008).

### **14.6.2 Self-reported mental problems**

Participants in the 2009 REU survey were also asked about any mental health problem they had experienced in the preceding six months before the interview, with 28% (n=28) reporting such problems. Of those that responded (n=28), the main mental health issues experienced were depression (61%, n=17) and anxiety (32%, n=9). Only 39% (n=11) of those who reported a recent mental health problem attended a health professional to address these issues. It should be noted that many participants experienced these issues as a result of complex life issues that were not directly related to drugs, e.g. relationship problems and unemployment.

### **14.6.3 Mental health problems**

In 2009, the previously used Short Form-8 Health Survey (SF-8) (Lefante, 2005) was replaced with the Personal Wellbeing Index (PWI) (Cummins, 2009). The PWI is designed to monitor the subjective wellbeing of populations by examining the average level of satisfaction across seven aspects of personal life – health, personal relationships, safety, standard of living, achieving, community connectedness, and future security. In Western nations, the average value for population samples is about 75 percentage points of satisfaction. That is, on a standardised scale from 0 (completely dissatisfied) to 100 (completely satisfied), the average person rates their level of life satisfaction as 75. The normal range is from 70 points to 80 points.

As the Victorian REU sample had a median age of 22 years of age and 76% of the sample was aged 18-25 years old, PWI scores were compared to Australian population scores for those aged 18-25 years.

The mean overall PWI score among the 96 REU participants who commented was 73 which is comparable to the general Australian population of comparable age (76).

For the other seven measures, the mean scores of the Victorian REU sample were comparable to the Australian population for personal relationships (77 vs 76), personal safety (82 vs 81) and future security (69 vs 72); they were significantly higher for community connectedness (73 vs 67) only; and significantly lower for the remaining quality of life measures of standard of living (73 vs 81), health (68 vs 80), life achievements (69 vs 76) and life as a whole (75 vs 79).

In summary, while the Victorian REU sample rated their connectedness to community more highly than Australians of comparable age, they appeared less satisfied with their standard of living, health, life achievements and life as a whole.

### **14.6.4 Physical health problems**

Only a small proportion of REU reported that they had ever been diagnosed with a chronic condition with the most frequently reported conditions being vision problems (n=33) and

asthma (n=30) followed by hayfever (n=21), skin problems (n=20), back/neck pain or problems (n=17) and migraine (n=14). Of these conditions, many had not received treatment in the past 12 months (range=47%-59% having received treatment in the last year) except for vision problems, hayfever and skin problems (78%, 71% and 65% respectively).

## 15 RISK BEHAVIOUR

### 15.1 Injecting and injecting-risk behaviour

#### 15.1.1 Lifetime injectors

Eighteen percent (n=18) of the 2009 REU sample reported ever injecting any drug (Table 24), a figure comparable to previous years. Among those who reported injecting, the median reported age for injecting for the first time was 22 years (range=16-29) and four reported injecting for the first time while they were under the influence or coming down from drugs.

**Table 24: Injecting behaviour among REU, 2005-2009**

	2005 (N=100)	2006 (N=100)	2007 (N=100)	2008 (N=100)	2009 (N=100)
Ever injected (%)	16	18	14	15	18
Median number of drugs ever injected (range)	4 (1-9) (n=16)	6.5 (1-12) (n=18)	5 (1-14) (n=14)	3 (1-6) (n=15)	1.5 (1-8) (n=18)

Source: REU interviews, 2005-2009

#### 15.1.2 Patterns of recent injecting drug use

Only seven participants reported having injected in the preceding six months. These participants reported injecting a median of six times (range=1-186) in the last six months, after sourcing needles mainly from NSP (n=5). No one reported the sharing of needles and only one participant reported using a tourniquet after someone else had. Small numbers preclude detailed interpretation of the figures in Tables 25 and 26 which should be viewed with caution.

**Table 25: Recent injecting drug use patterns (recent injectors) among REU, 2007-2009**

	% injected past 6 months			Median days injected last 6 months (range)*			% last drug injected		
	2007 (n=9)	2008 (n=7)	2009 (n=7)	2007 (n=9)	2008 (n=7)	2009 (n=7)	2007 (n=9)	2008 (n=7)	2009 (n=7)
Crystal	77	43	43	3 (1-24)	0 (0-60)	0 (0-60)	11	14	29
Speed	100	83	57	6 (3-100)	6 (0-65)	6 (0-180)	22	29	29
Base	11	29	0	7 (n=1)	0 (0-48)	-	0	-	-
Ecstasy (pills)	22	43	14	6.5 (1-12)	0 (0-48)	0 (0-4)	0	-	-
Ecstasy**	11	0	0	1 (n=1)	-	-	0	-	-
Heroin	77	57	43	24 (1-180)	12 (0-180)	0 (0-60)	33	57	43
Ketamine	11	0	0	1 (n=1)	-	-	0	-	-
Other opiates	56	14	14	12 (1-15)	0 (0-3)	0 (0-4)	22	-	-
Cocaine	33	43	14	2 (1-2)	0 (0-24)	-	11	-	-
Buprenorphine	11	0	0	2 (n=1)	-	-	0	-	-
Any drug	-	0	0	67 (4-180) (n=8)	-	-	-	-	-

Source: REU interviews, 2007-2009

\* Of those who had injected in the preceding six months

\*\* powder or capsule

**Table 26: Context and patterns of recent injection among REU, 2006-2009**

	2006 recent injectors (n=11)	2007 recent injectors (n=9)	2008 recent injectors (n=9)	2009 recent injectors (n=7)
Locales where injected*				
Own home (%)	73	100	86	71
Friend's home (%)	55	44	14	29
Car (%)	55	44	43	-
Dealer's home (%)	18	33	14	-
Street, park (%)	46	33	14	-
Public toilet (%)	36	44	14	-
Venue toilet (%)	18	11	14	-
Sex venue (%)	0	0	0	-
Injected (only) under the influence (%)	0	11	14	14
Injected (only) while coming down (%)	44	11	29	14
Injected (both) while under the influence and coming down (%)	56	78	43	29
Median times injected any drug under the influence and/or coming down last 6 months (range)	10 (2-30)	5 (2-20)	96 (3-1080)**	6 (1-36)

**Source: REU interviews, 2006-2008**

\* Could nominate more than one response

\*\* One participant injected daily, six times a day

## 15.2 Sexual risk behaviour

### 15.2.1 Recent sexual activity

Questions regarding sexual risk behaviour focused only on penetrative sex with 'casual' sex partners, defined as the penetration by the penis/fist of vagina/anus with a non-regular partner.

Comparable with previous years, 65% of those reporting to be sexually active (n=82) reported having had penetrative sex with a casual partner, with a median of three (range=1-5) episodes of penetrative sex in the six months prior to interview, with 53% reporting using a condom all of the time (Table 27).

**Table 27: Prevalence of sexual activity and number of sexual partners in the preceding six months, 2006-2009**

	2006 (N=99)	2007 (N=98)	2008# (N=99)	2009 (N=100)
<b>Penetrative sex (%)</b>	94	88	61	82
<b>No. of causal sexual partners (%)</b>				
One person	40	50	26	14
Two people	16	19	25	12
3-5 people	33	27	31	22
6-10 people	5	5	11	5
10+ people	5	0	7	3
<b>Sex with a regular partner (%)</b>	73 (n=68)	85 (n=75)	-	100 (n=82)
Always used a protective barrier (%)*	26	29	-	15
Never used a protective barrier (%)*	44	45	-	52
<b>Sex with a casual partner (%)**</b>	63 (n=58)	47 (n=40)	100 (n=61)	100 (n=53)
Always used a protective barrier (%)**	53	58	47	53
Never used a protective barrier (%)**	5	8	12	6

**Source: REU interviews, 2006-2009**

# casual partners only

\* Of those who had sex with a regular partner

\*\* Of those who had sex with a casual partner



### 15.2.2 Drug use during sex

The 53 participants who reported having had sex while under the influence of drugs/alcohol in the past six months reported having done so most frequently under the influence of alcohol (80%), followed by ecstasy (45%) and cannabis (33%) (Table 28). Among this population, only half reported always using a condom with a casual partner. These findings were similar to those in 2008.

**Table 28: Sex under the influence of drugs in the preceding six months, 2007-2009**

	2008 (n=55)	2009 (n=53)
<b>Penetrative sex while on drugs* (%)</b>	55	53
<i>Of those who had penetrative sex under the influence of drugs</i>		
	2008# (N=55)	2009# (N=40)
<b>Number of times</b>		
Once (%)	11	15
Twice (%)	27	5
3-5 times (%)	22	38
6-10 times (%)	11	25
Ten or more times (%)	29	18

	2008 (n=55)	2009 (n=53)
<b>Drugs used</b>		
Ecstasy (%)	56	45
Cannabis (%)	49	33
Alcohol (%)	73	80
Speed (%)	22	15
Base (%)	0	0
Ice (%)	2	5
Cocaine (%)	11	8
Ketamine (%)	4	5
GHB (%)	2	5
LSD (%)	6	10
<b>Sex with a regular partner (%)**</b>	n=0	n=81
Always used a protective barrier (%)	-	17
Never used a protective barrier (%)	-	58
<b>Sex with a casual partner (%)***</b>	n=55	N=53
Always used a protective barrier %	46	53
Never used a protective barrier %	18	6

**Source: REU interviews, 2007-2009**

# Casual partners only

\* Of those who had penetrative sex under the influence of drugs in the last 6 months

\*\* Of those who had penetrative sex with a *regular* partner under the influence of drugs in the last 6 months

\*\*\* Of those who had penetrative sex with a *casual* partner under the influence of drugs in the last 6 months

### 15.3 Driving risk behaviour

Sixty percent of the 2009 REU sample reported having driven a car/motorcycle/vehicle in the six months prior to being interviewed, a rate similar to previous years (Table 29). Of those driving during this time and able to comment (n=43), 58% (n=25) believed that they had driven over the legal limit for alcohol, a significantly higher number than those who believed they had done so in 2008. Those who believed that they had driven over the legal limit reported having done so a median of two times (range=1-90), and 60% (n=40) reported having driven soon after (i.e. within one hour or just before driving) consuming any illicit drug(s) a median of four times (range=1-180) (Table 29). Of those participants who reported driving within an hour of taking a drug in the last six months (n=40), the drugs most commonly reported as being taken were cannabis (63%, n=25), ecstasy (60%, n=24), or speed (43%, n=17).

Forty participants were able to comment about the last occasion they had driven recently after taking any illicit drug(s); they commonly reported driving after consuming cannabis (48%, n=19), ecstasy (40%, n=16) and speed (28%, n=11). The drugs that the 2009 participants reported using before driving were comparable to those reported by the 2004-2008 REU samples.

**Table 29: Drug driving in the last six months among REU, 2004-2009**

	2004	2005	2006	2007	2008	2009
<b>Driven while over the limit of alcohol#</b>	–	35	39	26	25	58
<b>Driven soon after* taking a drug# (%)</b>	63	58	68	71	61	60
<i>Of those who'd driven soon after</i>						
<b>Drug (%)</b>						
Ecstasy	73	70	82	63	75	60
Cannabis	48	43	57	63	85	63
Speed	58	70	64	49	55	43
Cocaine	8	15	23	12	15	8
Crystal methamphetamine	22	24	21	14	15	3
Methamphetamine base	8	2	2	2	0	0
Ketamine	11	7	5	6	5	3
LSD	8	9	5	4	0	5
GHB	8	7	4	6	0	3
Other opiates	0	0	2	0	0	0
Benzodiazepines	6	2	4	2	5	0
MDA	0	2	2	2	0	0
Methadone	3	0	2	0	0	0
Amyl nitrate	0	0	2	4	0	5
Nitrous oxide	0	2	2	2	0	0
Heroin	6	0	5	6	0	0

**Source: REU interviews, 2004-2009**

# Of those who had driven a car in the last 6 months

\* Within one hour of taking

Participants in the 2009 REU survey who reported driving after taking drugs in the last six months (n=40) were also asked how impaired they felt the last time they did this with 45% (n=18) believing that they were slightly impaired, 30% (n=12) believed that drug use had no impact on their driving, and only 5% (n=2) believing that they were quite impaired. Six participants (15%) believed that their drug use had slightly improved their driving abilities. Of the participants who recently reported driving after taking drugs (n=40), only seven (18%) had ever been tested for drug driving by the police roadside drug testing facilities, and all tested negative.

## 15.4 Alcohol Use

In 2009, the Alcohol Quantity, Frequency and Variability (AQFV) questionnaire was administered to the REU sample for the first time. Questions were asked regarding the number of standard drinks consumed on three occasions: the amount typically consumed on any day (typical), on regular changes (e.g. weekends) or on occasional changes (e.g. festivals/parties).

REU reported consuming a median of two to four standard drinks (range standard drinks: min=0-19, max=2-20) twice a week (range=1-7 days per week or month) during a *typical drinking* session. Not surprisingly, during *regular changes* (eg weekends) REU consumed more, drinking a median of 10-15 standard drinks (range standard drinks: min=0-36, max=4-45) twice a week (range=1-7 days per week or month) and, during festivals/parties (*occasional changes*), consumed a median of 15-20 standard drinks (range of standard drinks: min=0-36, max=4-45) twice a *year* (range=1-20 days per week to yearly). It was not uncommon for a small number of participants to report drinking less or no alcohol when using ERD. Given that the 2009 National Health and

Medical Research Council guidelines (NHMRC, 2009) recommend no more than two standard drinks on any day or more than four standard drinks during a single occasion of drinking, the majority of the EDRS sample would be considered to be drinking at harmful levels. These findings were consistent with data from the 2008 REU survey in which the WHO's Alcohol Use Disorders Identification Test (AUDIT) (Babor et al., 1993; Reinert & Allen, 2002) was used. Using this instrument, 86% of the recent alcohol users in the 2008 REU sample reported hazardous alcohol intake.

Most KE reported that alcohol was the most problematic drug among the REU with whom they had contact, used alone or often in combination with other drugs, especially with GHB (see GHB above). The main concerns related to the risk behaviours associated with its use, such as driving under its influence, and violence.

In an attempt to minimise alcohol and drug related harms (and negative publicity) at music industry events, dance party promoters reported that they had continued to work with government in producing a 'code of practice for running safer dance parties'<sup>7</sup>. This code of practice often exceeds those standards recommended by government. Additionally a no liquids policy was also reported as a means to partially address the availability of GHB and alcohol at events. Dance event venues (e.g. sport stadiums) also have their own policies that limit the amount of alcohol sold to an individual.

Ambulance officers reported that the majority of drug related ambulance attendances were alcohol related (falls, assaults) and alcohol remains the main confounder of other problematic drug use. They also reported that single drug overdoses were now uncommon except for those involving alcohol alone.

## 15.5 Energy drinks

Of the 98 participants who commented on their recent consumption of energy drinks (e.g. Red Bull, V), 65% had consumed an energy drink mixed *with alcohol* in preceding six months, reporting consumption of a median of two drinks (range=1-24) the last time they did so.

In contrast, 44% (n=42) reported that they had consumed an energy drink *with ecstasy*, with similar proportions reporting drinking the energy drink at the same time or after taking ecstasy (43% and 41% respectively) and 33% reporting drinking the energy drink before taking ecstasy the last time they did so. The REU reported consuming energy drinks a median of 60 minutes before (range=5-180) or after (range=45-180) taking ecstasy. Finally, 60% reported consuming an energy drink with *alcohol and ecstasy* the last time they had an energy drink.

## 15.6 Gambling

Twenty-eight participants reported that they had gambled in the 30 days preceding the interview, usually gambling at the casino (46%), playing poker (40%) or betting on horse/dog racing (36%). Typically, these participants reported gambling on a median of two days (range=1-30) in the last 30 days and gambling a median of \$40 (range=\$2-\$200) the last time they had gambled.

When asked if the number of days participants recently gambled was usual or not, a similar percentage reported that they had gambled the usual number of days (46%) or more than usual (43%). When participants were asked if they had used alcohol or drugs when they had last gambled, 39% (n=11) of recent gamblers reported they had gambled under the influence of alcohol with 73% (n=8) reporting that they continued to drink while gambling. In contrast, only 18% (n=5) reported being under the influence of an illicit drug when they last gambled, usually speed (n=3) or cannabis (n=2).

Those that had gambled for four or more days in the last month (n=7) were graded against a Problem Gambling Severity Index (PGSI) which measures the prevalence of problem gambling.

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<sup>7</sup> [www.health.vic.gov.au/drugservices/pubs/dance.htm](http://www.health.vic.gov.au/drugservices/pubs/dance.htm)

A total score of 1-2 on the PGSI index is classified as a low risk gambler, 3-7 as a moderate risk gambler and 8 or more as a problem gambler.

Using this score, three participants were classified as problem gamblers and two participants as moderate risk gamblers. The remaining two participants were classified as low risk.

### **15.7 Buss-Perry Aggression Questionnaire – Short Form**

In 2009, participants were administered the Buss-Perry Aggression Questionnaire – Short Form which measures four domains of aggression: physical aggression, verbal aggression, anger and hostility. REU were asked to report on a Likert scale from 1 (very characteristic of me) to 6 (very un-characteristic of me) in relation to three statements in each of the four domains. The Short Form not only contains fewer than half as many items as the original, but is also psychometrically superior (Byrant & Smith, 2001).

Using this survey, REU were more likely to report verbally aggressive behaviours than the remaining behaviour types. Overall self-reported aggression levels were highest for verbal aggression (mean=8.5, range=3-18) and lowest for physical aggression (mean=5.4, range=3-18) with hostility (mean=6.7, range=3-16) and anger (mean=7.2, range=3-17) falling in between these end points.

Similarly, the percentage who answered that *any* individual statement within each domain was characteristic of their personality was highest again for ratings of verbal aggression, with 57% reporting agreement with any one of the verbal aggression statements. The percentages endorsing any statement for anger or hostility were 52% and 42% respectively, with endorsement lowest for any statement relates to physical aggression (25%)

Lastly, the percentage of participants who agreed that *all* of the three statements (for each of the four domains) were characteristic of them was highest for the verbal aggression (20%) domain, followed by the anger (13%), physical aggression (7%), and hostility (6%) domains.

Participants in the 2009 REU survey were also asked if a drug could alter their aggression levels. Fifty-one participants reported 'yes', with 19 participants (37%) reporting ecstasy made them less aggressive and 19 participants (37%) reporting alcohol increased their aggression levels. This finding was consistent with reports from KE who suggested that alcohol, with or without amphetamines, was the main drug use pattern associated with violence and aggression.

## 16 LAW ENFORCEMENT-RELATED TRENDS ASSOCIATED WITH ERD USE

### 16.1 Reports of criminal activity among REU

Twelve participants in the 2009 REU survey reported that they had been arrested in the past 12 months, which was significantly higher than 2008, but similar to some other years for which data are available (Table 30). As in previous years, the most common crime EDRS participants reported committing during the last month was drug dealing (36%).

Drug traffickers were described by police informants to be popular, outgoing individuals aged in their early 20s to late 30s with no bias towards any particular gender. Typically traffickers were reported to carry multiple mobile phones and often sold drugs in homes and car parks. One police informant cited one recent methamphetamine dealer to have labelled his supply with a ‘calling card’ (gold sticker). Police informants also reported a small increase in the number of arrests and number of people dealing drugs. One KE (a dealer) reported selling to 10 regular people (seven males), selling approximately 20-30 pills every fortnight.

Police KE reported attending three to five events per year (each time deploying 12 arrests officers and three sniffer dogs) where they arrested on average 50 people per event. Police typically seize 1,000 ecstasy pills per month and most of people arrested for possession of ecstasy are found in possession of two pills.

**Table 30: Criminal activity reported by REU, 2003-2009**

Criminal activity in the last month	2003 (N=100)	2004 (N=100)	2005 (N=100)	2006 (N=98)	2007 (N=100)	2008 (N=100)	2009 (N=100)
Any crime (%)	49	33	24	35	29	41	50
Drug dealing (%)	43	29	18	28	21	37	36
Property crime (%)	12	9	10	11	6	9	23
Fraud (%)	5	2	2	3	1	5	0
Violent crime (%)	4	2	1	4	3	4	2
<b>Arrested in the preceding 12 months (%)*</b>	–	<b>17</b>	<b>10</b>	<b>12</b>	<b>7</b>	<b>3</b>	<b>12</b>

Source: REU interviews, 2003-2009

\* Not recorded prior to 2004

### 16.2 Perceptions of police activity towards REU

Compared to 2008, there was a significantly higher percentage of REU who reported that they believed police activity had increased in the last six months (46% vs 29%), with half (50%) believing that police activity had remained stable during that time (Table 31). The majority commented on their perceptions of recent changes in police activity, most frequently mentioning an increased police presence as a result of more drug driving buses/more roadside testing, increased police presence (both uniform and undercover, e.g. at live music events or in nightclubs), and increased presence of sniffer dogs. Despite these perceived changes in police activity, the majority of participants (76%) again reported that police activity had not made it more difficult to obtain ERD in the past six months.

**Table 31: Perceptions of police activity by REU, 2003-2009**

Recent police activity:	2003 (N=100)	2004 (N=100)	2005 (N=100)	2006 (N=100)	2007 (N=100)	2008 (N=100)	2009 (N=100)
Decreased (%)	3	1	1	0	3	2	1
Stable (%)	56	31	31	26	44	50	30
Increased (%)	19	58	52	45	43	29	46
Don't know (%)	22	10	16	28	10	19	23
Did not make scoring more difficult (%)	86	90	94	85	88	85	76

Source: REU interviews, 2003-2009

## 16.3 Arrests

### 16.3.1 Amphetamines

Table 32 details consumer (e.g. possession/use) and provider (e.g. trafficking/manufacture) arrests for amphetamine-type stimulants, during 2007/2008 in Victoria and Australia. During that financial year, approximately 22% of the arrests made in Australia for amphetamine-type stimulant offences occurred in Victoria (ACC, 2009).<sup>8</sup> In Victoria, the total number of consumer and provider arrests for amphetamine-type stimulants increased since 2005/2006 (3,599 in 2007/2008 vs 2,838 in 2005/2006).

**Table 32: Amphetamine-type stimulants: Consumer and provider arrests, Victoria and national, 2007/2008**

	Victoria (n)	Australia (n)	% of national arrests
<b>8.5.1 Consumer</b>	2,462	11,608	21.2
<b>Provider</b>	1,137	4,399	25.8
<b>TOTAL*</b>	3,599	16,047	22.4

Source: ACC

\* Includes those offenders for whom consumer/provider status was not stated

<sup>8</sup> Proportions (%) should be interpreted with caution due to the lack of uniformity across states and territories in the recording and storing of data on illicit drug arrests.

### 16.3.2 Cocaine

Table 33 details consumer (e.g. possession/use) and provider (e.g. trafficking/manufacture) arrests for cocaine during 2007/08 in Victoria and Australia. During that financial year, approximately 18% of the arrests made in Australia for cocaine offences occurred in Victoria (ACC, 2009).<sup>9</sup> In Victoria, the total number of consumer and provider arrests were similar in comparison to the 2005/2006 financial year (119 in 2007/2008 vs 98 in 2005/2006).

**Table 33: Cocaine: Consumer and provider arrests, Victoria and national, 2007/2008**

	Victoria (n)	Australia (n)	% of national arrests
<b>8.5.2 Consumer</b>	65	427	15.2
<b>Provider</b>	54	240	22.5
<b>TOTAL*</b>	119	669	17.8

Source: ACC

\* Includes those offenders for whom consumer/provider status was not stated

### 16.3.3 Cannabis

Table 34 details consumer (e.g. possession/use) and provider (e.g. trafficking/manufacture) arrests for cannabis, during the 2007/2008 financial year in Victoria and Australia. During that financial year, approximately 13% of the arrests made in Australia for cannabis offences occurred in Victoria (ACC, 2009).<sup>11</sup> In Victoria, the total number of consumer and provider arrests decreased slightly in comparison to the 2005/2006 financial year (6,681 in 2007/2008 vs 6,901 in 2005/2006).

**Table 34: Cannabis: Consumer and provider arrests, Victoria and national, 2007/2008**

	Victoria (n)	Australia (n)	% of national arrests
<b>8.5.3 Consumer</b>	4,950	44,860	11.0
<b>Provider</b>	1,731	7,460	23.2
<b>TOTAL*</b>	6,681	52,465	12.7

Source: Australian Crime Commission

\* Includes those offenders for whom consumer/provider status was not stated

### 16.3.4 Hallucinogens

Table 35 details consumer (e.g. possession/use) and provider (e.g. trafficking/manufacture) arrests for hallucinogens, during the 2007/2008 financial year in Victoria and Australia. During that financial year, 9% of the arrests made in Australia for hallucinogen offences (LSD or psilocybin mushrooms) occurred in Victoria (ACC, 2009).<sup>11</sup> The number of consumer and provider arrests for hallucinogen offences remains very low.

<sup>9</sup> Proportions (%) should be interpreted with caution due to the lack of uniformity across states and territories in the recording and storing of data on illicit drug arrests.



**Table 35: Hallucinogens: Consumer and provider arrests, Victoria and national, 2007/2008**

	Victoria (n)	Australia (n)	% of national arrests
<b>8.5.4 Consumer</b>	20	222	9.0
<b>Provider</b>	14	102	13.7
<b>TOTAL*</b>	34	325	10.5

Source: ACC

\* Includes those offenders for whom consumer/provider status was not stated

## 16.4 Experiences with drug detection ‘sniffer’ dogs

Over half (53%) of the 2009 REU survey respondents reported seeing drug detection ‘sniffer’/Passive Alert Drug Detection (PADD) dogs in the last six months. These respondents reported seeing drug detection dogs a median of two times (range=0-10), with 69% (n=36) reporting that they saw sniffer dogs while in possession of drugs. Two participants had been searched by police in the last six months due to positive notification from a sniffer dog, with one participant found in possession of drugs and released with a cautionary warning and the other found with no drugs.

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