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VICTORIAN TRENDS IN ECSTASY AND RELATED DRUG MARKETS 2012
Findings from the Ecstasy and related Drugs Reporting System (EDRS)

Australian Drug Trends Series No. 103

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ABBREVIATIONS

2CB	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
ATSI	Aboriginal and Torres Strait Islander
AUDIT	Alcohol Use Disorders Identification Test
BBVI	Blood-borne viral infection(s)
CNS	Central nervous system
DMT	Dimethyltryptamine
DPMP	Drug Policy Modelling Program
EDRS	Ecstasy and related Drugs Reporting System
ERD	Ecstasy and related drugs
EPS	Emerging psychoactive substances
FTND	Fagerstrom Test for Nicotine Dependence
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)
IPS	Illicit psychostimulants
K10	Kessler Psychological Distress Scale (10-item)
KE	Key expert(s)
LOC	Loss of conciousness
LSD	*d*-lysergic acid
MDA	3,4-methylenedioxyamphetamine
MDMA	3,4-methylenedioxymethamphetamine (ecstasy)
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
NSP	Needle syringe program(s)
PDI	Party Drug Initiative
PWID	People who inject drugs
REU	Regular ecstasy user(s)
RPU	Regular psychostimulant users
SDS	Severity of Dependence Scale

SPSS	Statistical Package for the Social Sciences
STI	Sexually transmitted infection(s)
TBI	Traumatic brain injury
VYADS	Victorian Youth Alcohol and Drug Survey
WHO	World Health Organization

EXECUTIVE SUMMARY

This report presents the results from the tenth 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. In 2003 a two-year national trial of the study commenced, with the addition of capital cities in Western Australia, the Northern Territory, the Australian Capital Territory, Tasmania and Victoria; the study continued following successful implementation of the national trial. In 2012, 100 regular ecstasy users (REU) were interviewed in Victoria. Key findings from 2012 REU interviews, key expert (KE) interviews and external indicator data are included in this report.

Demographic characteristics of REU

The 2012 REU sample was comprised of people who had a mean age of 24 years (range=17-41 years), slightly younger than in 2011. Other characteristics were consistent with those measured in 2011; REU tended to be well educated, from an English-speaking background, and few reported being in drug treatment in 2012.

Patterns of drug use among REU

In addition to ecstasy, in 2012 most REU reported having recently used alcohol, tobacco and cannabis (as in 2011). In 2012 four REU reported recent use of crystal MDMA, which was not reported in previous years. Methamphetamines were also commonly used by REU; the prevalence of recent use of methamphetamines remained high but was not significantly greater in 2012 (prevalence of speed (methamphetamine) use was 77% compared to 69% in 2011; prevalence of crystal methamphetamine/ice or crystal meth use was 48% compared to 38% in 2011). While recent use of crystal meth was not significantly greater than in 2011, it was 2.5 times greater than the 2010 figure (18%). In regards to other drug use, there was a notable decline in reporting of recent use of *d*-lysergic acid (LSD) between 2011 and 2012 (57% vs. 38% respectively), heroin (15% vs. 5%) and mephedrone (68% vs. 29%) among REU who reported ever using these drugs in 2012. Among those who reported ever using 2CB (n=15) in 2012, 67% reported recent use compared to 6% in 2011.

Ecstasy

As in previous years, the 2012 REU sample reported first using ecstasy regularly at a mean age of 18 years, swallowing a median of two pills on a typical session and typically swallowing other drugs in conjunction with ecstasy (95%). In 2012, 35% of REU reported ecstasy as their “favourite” drug compared to 31% in 2011. The price per ecstasy pill increased from $25 in 2011 to $30 in 2012. A greater percentage of REU reported perceiving ecstasy purity to be high in 2012 than in 2011 (28% vs. 6% respectively) and fewer REU reported ecstasy to be difficult to obtain (9% vs. 20% respectively). Ecstasy seizures analysed by Victoria Police Forensic Services Department indicated a doubling in purity between the 2010/2011 and 2011/2012 financial years (15% and 33% respectively). Consistent with previous years, REU reported most commonly obtaining ecstasy from friends (66%), at friends’ homes (33%), and using ecstasy at nightclubs (39%).

Methamphetamine

REU were asked about different forms of methamphetamines: speed, crystal meth and methamphetamine base.

As in previous years, in 2012 REU reported using a median of 0.5g of speed in a typical session. REU reported using speed on a median of six days in the past six months in 2012, lower than the median of 11 days in 2011. REU reported typically paying $200 per gram for speed in 2012, unchanged from the previous years. Fewer REU reported the purity of speed as high quality in 2012 than in 2011 (30% vs. 38% respectively). Over two-thirds (70%) of REU reported that ease of access of speed was stable in the past six months. REU reported most commonly purchasing speed from friends (51%) and last obtaining it at a friend's home (38%). REU most commonly reported using speed at nightclubs (26%), at home (20%) or friends' homes (18%).

In 2012, REU reported using a median of 1.5 points[1] of crystal meth in a typical session, slightly lower than the two points reported in 2011. The median reported days of using crystal meth increased from eight days in the past six months in 2011 to 8.5 days in 2012. The most commonly reported route of administration for crystal meth in the past six months was smoking (98% in 2012 vs. 87% in 2011). The median reported price per point of crystal meth was $100, unchanged from 2011. In 2012, REU reported crystal meth being of high purity (63% vs. 57% in 2011). In 2012, 55% of REU reported that ease of access of crystal meth was stable in the past six months. REU reported most commonly purchasing crystal meth from friends (45%) and obtaining it at friends' homes (45%). REU most commonly reported using crystal meth at friends' homes (50%).

Only 13 REU reported recent use of methamphetamine base and few were able to respond to questions about price, purity and availability in 2012 (n=6).

Methamphetamine seizures analysed by Victoria Police Forensic Services Department have increased in purity from 39% in the 2010/2011 financial year to 57% in 2011/2012.

Cocaine

In 2012, REU reported using a median 0.5 grams of cocaine in a typical session, which was half the median reported amount in 2011 but consistent with previous years. REU reported using cocaine on a median of three days in 2012 compared to 2.5 days in 2011. The majority of users reported snorting cocaine (96%). The median reported cost of cocaine in 2012 was $350 per gram, slightly higher than the $320 recorded in 2011. About half (48%) of REU who were able to comment perceived current cocaine purity to be "medium" and reported the purity of cocaine was stable in the preceding six months. REU reported most commonly obtaining cocaine from friends (55%) or obtaining cocaine at friends' homes (29%). The most commonly reported last location of cocaine use was in a nightclub (39%) or at a friend's home (23%).

Cocaine seizures analysed by Victoria Police Forensic Services Department during the 2011/2012 financial year was 49% (range=19%-82%), higher than in the previous financial year (35% in 2010/2011).

[1] A point is 0.1 grams.

Ketamine

In 2012, 35% of REU reported recent use of ketamine, slightly higher than the 26% recorded in 2011. Ketamine was used on a median of two days in the preceding six months in 2012 compared to a median of four days in 2011. REU most commonly quantified their use of ketamine in "bumps",[2] reporting using a median of 2.5 bumps during a typical session. Only 13 REU were able to answer questions on trends in ketamine price, purity and availability.

Gamma-hydroxy-butyrate (GHB)

Only seven REU reported recent use of GHB in 2012. KE reported GHB use to be low in the past 12 months and only used by particular groups of users (e.g., people who attended raves).

LSD

Recent users of LSD reported irregular use of the drug on a median of three days in the preceding six months in 2012, comparable to the number of days of use reported in previous years. The median reported price per tab[3] was $15 in 2012, unchanged from 2011. Eighty-three per cent of LSD users reported the purity of LSD as medium to high in 2012, consistent with previous years. LSD was reported to be easy to source by 71% of LSD users in 2012 compared to 83% in 2011, typically from friends (60%) and at live music events (26%) or at a friend's home (20%). The 2012 REU sample reported their most recent LSD use to be at a live music event (31%) or at home (17%).

Cannabis

Reports of cannabis use were common among REU in 2012 (85%). REU reported using cannabis on a median of 72 days (three times a week) in 2011, which was higher than the 48 days reported by REU in 2011. Eighty-five per cent of recent users reported smoking cannabis. REU reported typically paying $15 for a gram of either hydroponic or bush cannabis. In 2012, the potency of cannabis was typically reported as being medium to high for hydroponic cannabis (82%) and for bush cannabis (77%), consistent with past years. KE reported that cannabis was the second most frequently reported drug of concern for drug treatment services. KE also reported cannabis was commonly used with crystal meth and cannabis to be more prevalent in road collisions in recent years. The majority of REU reported cannabis was very easy to obtain, commonly obtaining it from friends (42% for hydroponic and 63% for bush cannabis) and at a friend's home (42% for hydroponic and 50% for bush cannabis).

Alcohol

As in previous years, all of the 2012 REU reported lifetime use of alcohol and 97% reported recent use, initiating drinking at the age of 14.5 years. REU reported drinking on a median of 48 days (two times per week) in the preceding six months in 2012, unchanged from 2011. A higher percentage of REU reported drinking alcohol during a stimulant drug binge in 2012 compared to 2011 (82% vs. 66% respectively). Alcohol continues to be one of the drugs most commonly reported as problematic by KE. KE reported alcohol use to be widespread among REU and often used with other drugs, leading to violence and increased risk of overdose.

[2] A bump is an unfixed quantity, often referring to a small mound (e.g. on the corner of a plastic card) that is snorted.

[3] A small blotting paper containing a drop of LSD which is consumed orally.

Health and other issues

Some REU have reported serious consequences related to their drug consumption. Recent stimulant drug overdose was reported by 18% of REU in 2012; they typically attributed their overdoses to ecstasy or crystal meth. Recent depressant drug overdose was reported by 18% of REU in 2012; they typically attributed their overdose to alcohol. In 2012, REU were administered the 10-item Kessler Psychological Distress Scale (K10) to measure the level of psychological distress that they may have experienced in the preceding four weeks; 45% were classified as experiencing moderate, 20% high and 10% very high psychological distress. Seventeen per cent of 2012 REU reported they had accessed a health or medical service in relation to their ERD use in the preceding six months.

In 2011, the Victorian specialist alcohol and other drug telephone counselling service DirectLine received calls identifying ecstasy (1.5%), amphetamine and/or other stimulants (12%), cocaine (0.8%) and cannabis (10.9%) as drugs of concern. Data from ambulance attendances at non-fatal drug-related events suggest that attendances involving ecstasy declined by almost half in 2010 compared to 2009 (236 vs. 409 respectively) but remained relatively stable at around 212 attendances in 2011. In contrast, attendances involving amphetamines have increased since 2009 (425 attendances), with 533 attendances occurring in 2010 and 768 attendances in 2011.

Risk behaviour

Fewer REU reported ever injecting a drug in 2012 than in 2011 (13% vs. 27% respectively). Only seven REU reported having injected a drug in the preceding six months in 2012.

Over half (57%) of 2012 REU reported that they had completed the vaccination schedule for the hepatitis B virus (HBV), mainly reporting vaccination during childhood (54%). Forty-three per cent of the 2012 REU sample reported that they had ever been tested for the hepatitis C virus (HCV); 63% of these tests occurred in the preceding 12 months and no one reported a positive HCV result. Forty-one per cent of the 2012 REU sample reported that they had ever been tested for HIV; 73% of these tests occurred in the preceding 12 months and no one reported a positive HIV result. Forty-nine per cent of the 2012 REU sample reported ever having a sexual health check-up (such as a swab, urine, or other blood test), and 73% of these tests were in the past year. The majority (90%) reported that they had never been diagnosed with a sexually transmitted infection.

Sixty-nine per cent of the 2012 REU sample reported recent penetrative sex with a casual partner in the past six months. Of those who reported recent penetrative sex with a casual partner, 57% reported using a condom the last time they had sex when sober. Sixty-five participants reported having had sex with a casual partner while under the influence of drugs/alcohol in the past six months. Among this group, 57% reported using a condom with a casual partner the last time they had sex while using drugs.

Seventy per cent of the 2012 REU sample reported having driven a car/motorcycle/vehicle in the six months prior to being interviewed, a rate similar to previous years. Reports of risky driving practices among the REU sample were common, with 42% reporting driving while over the legal limit of blood alcohol limit (for their licence type) in the preceding six months and 55% reporting driving soon after consuming illicit drugs.

Risky alcohol use was also measured among the REU sample in 2012. Eighty per cent of REU scored eight or more on the World Health Organization's (WHO) Alcohol Use Disorders Identification Test (AUDIT), which refers to levels at which alcohol intake may be considered hazardous, a figure consistent with that measured in 2011 (78%).

Law enforcement-related trends associated with ERD use

In 2012, 17% of the REU sample reported that they had been arrested in the past 12 months and half reported engaging in any type of crime in the last month. Drug dealing was the most common type of crime reported by the REU sample (35%). Consistent with previous years, 42% of REU reported they believed police activity towards REU to be stable in the past six months.

Conclusions

The results reported here describe ERD use and trends in 2012 in Melbourne, Victoria, and provide comparisons with the findings of the previous ERDS studies. The key findings were as follows. Crystal meth use in 2012 remained at the level reached after a significant increase between 2010 and 2011. REU reported a return of high-purity ecstasy into the market and a decline in recent use of LSD, heroin and mephedrone. REU's reports suggest the emergence of 2CB in Melbourne's ERD scene. As in previous years, alcohol was commonly associated with drug-related harms, which is particularly concerning as more REU reported drinking alcohol during a stimulant drug binge in 2012 than in 2011. REU reported low access to health services relating to their ERD use.

Implications

This tenth consecutive 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 drugs are reportedly used, and the availability of many drugs, have largely remained stable across the 10 years of data collection. Other characteristics, such as the possible return of high ecstasy and methamphetamine purity, high percentage of alcohol use at potentially harmful levels evident in recent years, and the increased use of some emerging psychoactive substances (EPS), 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 sexual health risks.

The Victorian EDRS represents a key knowledge base from which to further explore patterns and characteristics of ERD use in the state. 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).

On the basis of the findings of the 2012 Victorian EDRS we recommend:

- further exploration of methods to reduce and prevent the use of alcohol at harmful levels;
- tailored research and surveillance activities capable of capturing information on emerging psychoactive substances such as 2CB as they emerge and their use expands;
- raising health workers' awareness of popular emerging substances to increase their ability to detect related drug overdoses and enhance surveillance activities;
- further research into the health and behavioural effects of EPS in order to gain a greater understanding of these drugs, and develop clinical and public health responses;
- further investigation into how to improve REU's utilisation of health services;
- further investigation of how to educate REU about the risks associated with behaviour such as sexual intercourse while under the influence of drugs; and
- 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.

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 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, Degenhardt, Kaye, & Darke, 2002).

The IDRS data collection consists of three components: interviews with illicit drug users; interviews with key experts (KE) who are 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 use of ecstasy and related drugs (ERD) in other social contexts such as raves and parties. This is because people who inject drugs (PWID) are the sentinel group chosen for study purposes and these people are recruited mostly through needle and syringe programs (NSP). Most PWID have been primary heroin users whose polydrug use extended to other opiates and central nervous system (CNS) depressants, but not to 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(Topp, Hando, Dillon, Roche, & Solowij, 2000), there is an imperative for maintaining broad 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) is an important system for gathering information about these local markets.[4]

In 2000, the National Drug Law Enforcement Research Fund (NDLERF) supported a two-year, two-state trial of the feasibility of monitoring emerging trends in ERD 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 or MDMA), this includes drugs such as methamphetamine, cocaine, *d*-lysergic acid (LSD), ketamine, MDA (3,4-methylenedioxyamphetamine) and GHB (gamma-hydroxy-butyrate).[5]

The findings of the two-year NDLERF-funded trial (Breen et al., 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 2012 through the conduct of the tenth year of the study, formerly known as the Party Drug Initiative (PDI). Comparisons are also made between the 2012 results and those

[4] 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.
[5] For further information about these and other party drugs, see: www.adf.org.au; www.bluelight.nu; www.erowid.org.

reported in the 2003 to 2011 studies where appropriate. The trends described in this report have been extrapolated from three data sources: interviews with current REU, interviews with individuals who have contact with ecstasy users through their work KE, 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 has been maintained where possible, as the IDRS has demonstrated success as a monitoring system (Shand, Topp, Darke, Makkai, & Griffiths, 2003; Topp, Degenhardt, Day, & Collins, 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 2012 Victorian EDRS was to extend to a tenth year the routine monitoring of key ERD market indicators in Melbourne. The specific aims of the study were to:

- describe the characteristics of a sample of current ecstasy users interviewed in Melbourne;
- examine the patterns of ERD use of this sample;
- document the current market characteristics (i.e., price, purity and availability) of ERD in Melbourne;
- examine participants' perceptions of the incidence and nature of ERD-related harm, including physical, psychological, occupational, social and legal harms;
- identify emerging trends in the ERD market that may require further investigation;
- examine levels of participants' involvement in criminal behaviours and perceptions of recent police activity towards ERD users; and
- where appropriate, provide a comparison of 2012 findings with those reported in the previous EDRS reports.

2 METHOD

The 2012 EDRS used the methodology trialled in the feasibility study (Breen et al., 2002), subsequently used in the 2003-2011 studies, to monitor trends in the markets for ERD. 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) conducted by the Australian Institute of Health and Welfare (AIHW).

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 is 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”. Ecstasy is one of the main illicit drugs used in Australia. It is the second most widely used illicit drug after cannabis, with 3.0% 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, 2011).

A group of regular ERD users was successfully recruited and interviewed for both the two-year feasibility trial (2000-2001) in New South Wales, Queensland and South Australia, and the subsequent implementation of the PDI in 2002 in these jurisdictions. The findings from these studies provided further evidence of the central role of ecstasy to the various drug markets of Australia (White, Breen, & & Degenhardt, 2003). Therefore, REU were recruited again in 2012 to provide information on ERD markets.

For the purposes 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 17 years of age and have resided in the Melbourne metropolitan area for the 12 months prior to the interview.

2.1.1 Recruitment

One hundred REU were interviewed for the Victorian 2012 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 in Australian studies (Boys, Lenton, & Norcoss, 1997; Ovendon & Loxley, 1996; Solowij, Hall, & Lee, 1992) as well as 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 & O'Keeffe, 2005).

2.1.2 Procedure

Participants contacted the researchers by telephone or via email and were screened for eligibility (criteria as above). As in the main IDRS, the focus was on the capital city, since it is typically thought that 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 (85 Commercial Rd, Melbourne) 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., 2000), which incorporated items from previous NDARC studies of users of ecstasy (Solowij et al., 1992) and powder meth/amphetamine (Darke, Cohen, Ross, Hando, & Hall, 1994; Hando & Hall, 1993; 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 Statistical Package for the Social Sciences (SPSS) as well as Stata. For selected key variables, tests of proportions were used to determine the significance of differences between 2011 and 2012 results with a statistically significant difference defined as $p<0.05$. A p-value is only reported where there were significant differences throughout the report.

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 ERD throughout the preceding six months. Eight KE provided information on the ecstasy users they had contact with/knowledge of in the six to 12 months preceding interview.

The eight KE interviewed in 2012 were two members of Victoria Police, Drug Task Force and Dog Squad (sniffer dogs), a drug treatment worker, a medical officer, a general health worker in custodial services, a nurse, a peer educator and carer, and a researcher.

Most of the KE reported working with mixed populations (in terms of age, ethnicity and gender identity); however, four reported that they worked with one or more "special population groups", including youth, people in custody, online groups and motorists.

KE were asked to comment on what drug(s) they considered most problematic and the reasons why, and also to comment on any changes in drug market characteristics between 2012 and 2011.

2.3 Other indicators

Primary information collected from the REU surveys and KE interviews was supplemented by data obtained from secondary indicator sources of illicit drug use and related morbidity and mortality. Where possible, data relating to trends for the 2011/2012 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 2010 NDSHS (Australian Institute of Health and Welfare, 2011) and the 2009 Victorian Youth Alcohol and Drug Survey (VYADS) (Victorian Drug and Alcohol Prevention Council, 2010).

Drug seizure purity levels

- The Drug Analysis Branch of the Victoria Police Forensic Services Department conducts purity analyses for all drug seizures made by Victoria Police. The Victoria Police Forensic Services Department has provided drug purity data for inclusion in this report up to the 2011/2012 financial year.

Drug-related arrest data

- Information pertaining to drug-related arrests in Victoria was obtained from the Australian Crime Commission (ACC). 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 2010/2011 financial year.

Specialist drug treatment presentations

- The Victorian Department of Health 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 represent courses of treatment (not client numbers) for the 2011/2012 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 callers' drugs of concern, calls from drug users and calls about drug users. This report presents data for the period between 1999 and 2011.

Ambulance attendances at non-fatal drug-related events

- Turning Point Alcohol & Drug Centre manages electronic drug-related ambulance attendance data extracted from a database called VACIS. Data for the period between January 2009 and December 2011 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. It reports the "principal diagnosis" (the diagnosis established as chiefly responsible for occasioning the patient's episode of care in hospital). As the most recent hospital admission data were not available at the time of printing, this report presents drug-related (amphetamine, cocaine and cannabis) hospital admissions for Victoria and Australia from 2003/2004 and 2009/2010 (Roxburgh, 2012).

3 SAMPLE CHARACTERISTICS

3.1 Overview of the REU participant sample

The characteristics of the REU sample recruited in 2012 were comparable to those of previous years' samples (Table 1). The participants were mostly heterosexual with a mean age of 24 years, slightly younger than the 2011 sample but consistent with previous years. REU were predominantly male (67%) and well educated (52% with tertiary qualifications).

Table 1: Demographic characteristics of REU sample, 2008-2012

	2008 (N=100)	2009 (N=100)	2010 (N=100)	2011 (N=101)	2012 (N=100)
Mean age (years)	24	23	24	26	24
Male (%)	53	67	64	64	67
English-speaking background (%)	96	100	100	98	94
ATSI (%)	1	2	0	2	2
Heterosexual (%)	88	84	83	86	90
Mean number school years	12	12	12	12	12
Tertiary qualifications (%)	46	46	41	58	52
Employed full time (%)	38	25	21	25	23
Full-time students (%)	9	9	8	9	8
Unemployed (%)	8	16	21	32	16
Previous conviction (%)**	2	1	4	-	-
Current drug treatment (%)	3	2	5	4	7
Mean income per week ($)*	-	$542	$504	$539	$530

Source: REU interviews, 2008-2012
* Income question introduced in 2009
** Not asked in 2011 and 2012

KE interviews indicate that the REU population remain diverse in characteristics such as age, gender, sexuality and geographic location. However, they tended to be between 18 and 30 years, well educated, and employed or students. Most KE reported having contact with both male and female REU. They also reported seeing a range of ethnicities and people from all areas across Melbourne.

4 CONSUMPTION PATTERN RESULTS

Summary

- There was a large reduction in the reported recent use of LSD and heroin in 2012 compared to 2011.
- Reported recent use of crystal meth in 2012 was high at 48% but not significantly different to the 2011 figure (38%).
- Approximately one-third of REU reported bingeing on ERD in the past six months on a median of three occasions in 2012.
- Thirty-five per cent of participants in the 2012 REU sample reported ecstasy as their “favourite” drug, similar to the percentage in 2011 (31%).
- Prevalence of recent use of ecstasy capsules was nearly identical in 2012 and 2011 (67% vs. 64% respectively), 4% of REU reported use of MDMA crystals (vs. zero in 2011).
- The most common EPS recently used by REU in 2012 were synthetic cannabis, dimethyltryptamine (DMT), 2CB and mephedrone.

4.1 Drug use history and current drug use

The reported recent use of drugs was significantly lower in 2012 than 2011 for LSD (38% vs. 57% respectively, $p<0.01$) and heroin (5% vs. 15% respectively, $p=0.02$). The reported recent use of crystal meth was higher in 2012 (48%) than in 2011 (38%) but the difference was not significantly different.

KE considered alcohol, ice and benzodiazepines to be the most problematic drugs used by REU in 2012. KE were concerned about REU over-consuming alcohol, particularly "pre-loading" before going out due to the increasing cost of alcohol at venues. They also expressed concerns about polydrug use with alcohol among REU. KE described crystal meth users as displaying more aggressive behaviours and having an increased risk of overdose due to swallowing large quantities to avoid detection by sniffer dogs at festivals. Concerns around benzodiazepine use were mostly around drug dependence and the long period of withdrawal.

For the purposes of this study, "bingeing" was defined as using any drug(s) on a continuous basis for more than 48 hours without sleep (Ovendon & Loxley, 1996). Thirty-eight per cent of the sample reported that they had binged on ERD in the six months preceding interview. The median length of the longest binge was 72 hours (range=48-336) and those reporting recent bingeing indicated having done so a median of three times (range=1-24 times) during the preceding six months. Of the 38 REU who reported recently bingeing on ERD, tobacco (74%), alcohol (use >5 standard drinks, 71%), crystal meth (71%), ecstasy (68%), cannabis (55%) and speed (50%) were the drugs most commonly reported as used during binges.

Table 2: Lifetime and recent drug use of REU, 2008-2012

	2008 (N=100)	2009 (N=100)	2010 (N=100)	2011 (N=101)	2012 (N=100)
Alcohol					
Ever used (%)	99	100	99	99	100
Used last 6 months (%)	97	99	97	97	97
Cannabis					
Ever used (%)	99	95	97	96	97
Used last 6 months (%)	84	85	89	86	85
Tobacco					
Ever used (%)	88	91	97	92	94
Used last 6 months (%)	75	86	88	82	87
Ecstasy powder					
Ever used (%)	49	37	48	56	43
Used last 6 months (%)	27	24	34	30	31
Methamphetamine powder (speed)					
Ever used (%)	90	90	88	88	94
Used last 6 months (%)	75	72	70	69	77
Methamphetamine base (base)					
Ever used (%)	20	18	13	32	22
Used last 6 months (%)	7	7	3	12	13
Crystal methamphetamine (crystal)					
Ever used (%)	53	36	45	56	57
Used last 6 months (%)	22	13	18	38	48
Cocaine					
Ever used (%)	79	75	76	74	78
Used last 6 months (%)	51	48	54	43	54
LSD					
Ever used %	51	63	72	82	63
Used last 6 months %	29	46	49	57	38
MDA					
Ever used (%)	24	9	14	27	27
Used last 6 months (%)	9	2	6	12	12
Ketamine					
Ever used %	55	43	53	60	63
Used last 6 months %	20	21	23	26	35
GHB					
Ever used (%)	20	15	23	24	24
Used last 6 months (%)	11	10	12	6	7
Amyl nitrite					
Ever used (%)	43	62	58	63	53
Used last 6 months (%)	16	41	34	24	21
Nitrous oxide					
Ever used (%)	43	43	43	55	39
Used last 6 months (%)	23	22	22	33	22
Psilocybin mushrooms					
Ever used (%)	66	62	75	83	74
Used last 6 months (%)	20	27	22	41	38
Benzodiazepines (illicit and licit)					
Ever used (%)	61	74	71	71	59
Used last 6 months (%)	38	53	45	56	46
Antidepressants (illicit and licit)					
Ever used (%)	19	27	36	31	36
Used last 6 months (%)	8	13	15	11	19
Heroin					
Ever used (%)	16	16	17	28	17
Used last 6 months (%)	5	5	7	15	5
Methadone					
Ever used (%)	6	4	6	13	7
Used last 6 months (%)	3	1	5	6	2
Other opiates (illicit and licit)					
Ever used (%)	22	19	25	43	33
Used last 6 months (%)	13	8	8	21	13

Source: REU interviews, 2008-2012

4.2 Ecstasy use

4.2.1 Ecstasy use among REU

Ecstasy was reported as the main drug of choice ("favourite" drug) by 35% of REU in 2012 compared to 31% in 2011. REU reported typically swallowing a median of two ecstasy pills on a fortnightly basis, unchanged from previous years (Table 3). Almost all (n=95) REU reported using ecstasy with other drugs. Of those who reported using ecstasy with other drugs, the most common other drug was alcohol (used >5 standard drinks, 65%), followed by tobacco (58%), cannabis (46%) and speed (21%). One-quarter of REU reported using ecstasy weekly or more in the preceding six months.

In 2012, just over half of REU reported using other drugs to "come down" from ecstasy. The most common drugs reportedly used for coming down from ecstasy were cannabis (71%) and benzodiazepines (23%).

Table 3: Patterns of ecstasy use among REU, 2008-2012

	2008 (N=100)	2009 (N=100)	2010 (N=100)	2011 (N=101)	2012 (N=100)
Mean age first used ecstasy (years)	18	19	18	18	18
Ecstasy "favourite" drug (%)	39	42	31	31	35
Median days used ecstasy pills last 6 months	12	12	12	10	12
Use ecstasy pills weekly or more (%)	38	29	23	20	25
Median ecstasy pills in "typical" session	2	2	2	2	2
Typically use >1 pill (%)	77	77	76	75	83
Recently binged on ecstasy (%)*	38	36	32	33	26
Main route of administration of ecstasy pills in the last 6 months (%)					
Swallow	95	94	85	83	88
Snort	5	5	13	17	10
Inject	3	1	1	0	1
Ever injected ecstasy pills (%)	7	3	2	10	4
Typically use other drugs in conjunction with ecstasy (%)	98	96	98	94	95
Typically use other drugs to "come down" from ecstasy (%)	80	55	53	67	56

Source: REU interviews, 2008-2012

*Binged defined as the use of drugs for more than 48 hours continuously without sleep

Table 4 shows reported patterns of use for ecstasy capsules. Prevalence of reported lifetime and recent capsule use between 2010 and 2012 remains significantly higher than in previous years.

Table 4: Patterns of ecstasy capsule use among REU, 2008-2012

	2008 (N=100)	2009 (N=100)	2010 (N=100)	2011 (N=101)	2012 (N=100)
Lifetime use of ecstasy capsules (%)	46	65	81	88	83
Used ecstasy capsules in last 6 months (%)	18	48	65	64	67
Mean age first used ecstasy (years) (range)	19 (13-33)	20 (17-43)	20 (14-48)	20 (15-45)	20 (14-35)
Median days used ecstasy capsules last 6 months* (range)	5 (1-24)	3 (1-18)	5 (1-40)	6 (1-48)	5 (1-54)
Median ecstasy capsules in "typical" session* (range)	2 (1-20)	1.5 (1-5)	2 (0.5-12)	2 (1-5)	2 (0.7-8)
Main route of administration of ecstasy capsules in the last 6 months* (%)					
Swallow	78	94	94	97	63
Snort	53	46	82	83	44
Inject	0	0	0	1	1

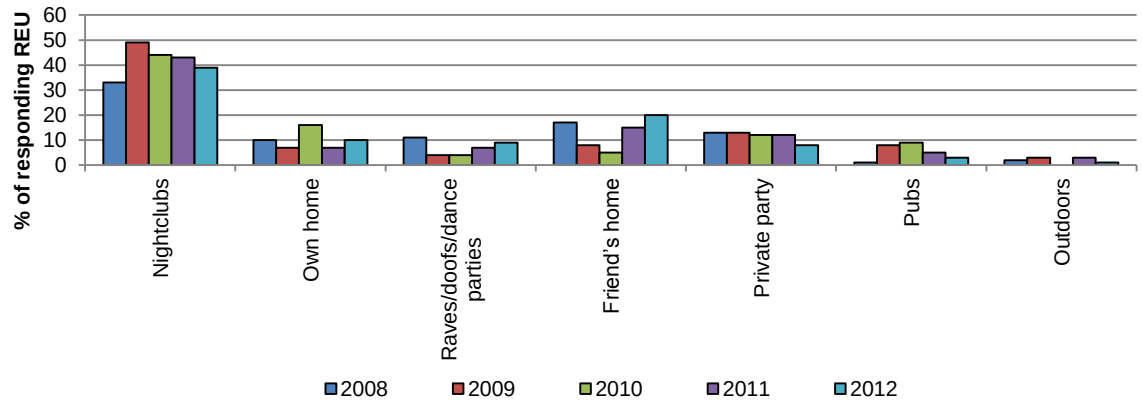
Source: REU interviews, 2008-2012

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

In 2012, four REU reported using MDMA crystals; there were no reports in 2011. Two KE also reported noticing an increase in capsule, powder and crystal MDMA popularity in 2012, suggesting that there is currently good quality MDMA in the market. One KE suggested the increase may be due to the availability of drugs through an online drug market called Silk Road. While peer educators have reported an increased number of MDMA-related cases requiring care at festivals, this was not reported by KE nurses working at hospitals.

Figure 1 shows REU's reported last location of ecstasy use. Consistent with previous years, in 2012 nightclubs were the most commonly reported location of most recent ecstasy use (39%).

Figure 1: Location of most recent ecstasy use, 2008-2012

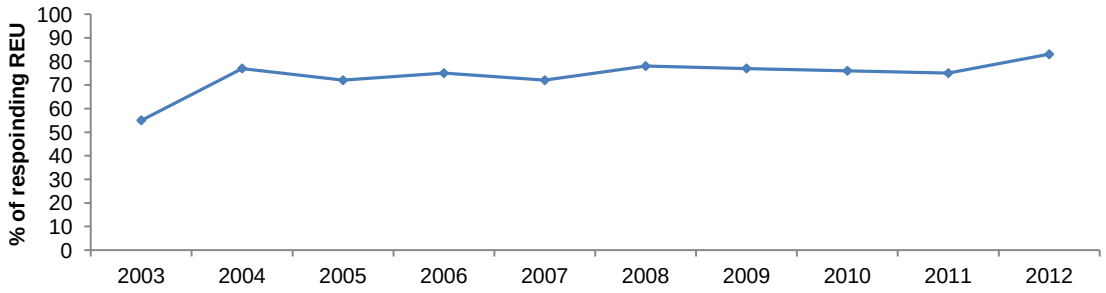


Source: REU interviews, 2008-2012

4.2.2 Trends over time

In 2012, 83% of REU reported using more than one ecstasy pill per drug-using session (Figure 2). In 2012, REU reported using ecstasy on the highest median number of 17 days in the preceding six months since 2003 (Figure 3). In contrast, the percentage of REU reporting bingeing[6] on ecstasy was the lowest since 2003 (26%) (Figure 4).

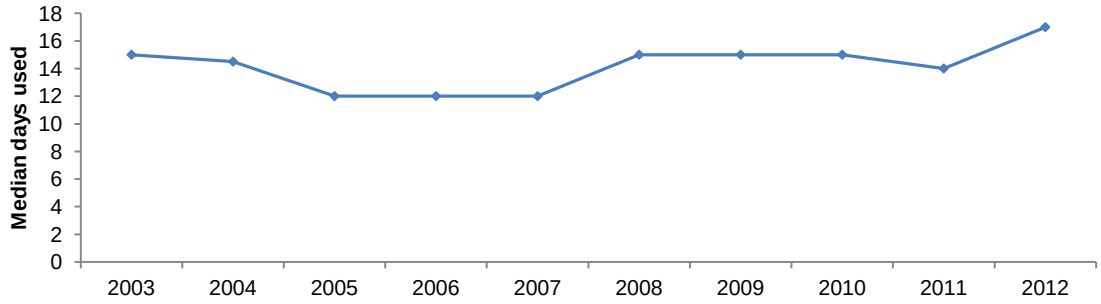
Figure 2: Percentage of REU who report typically using more than one ecstasy tablet, 2003-2012



Source: REU interviews, 2003-2012

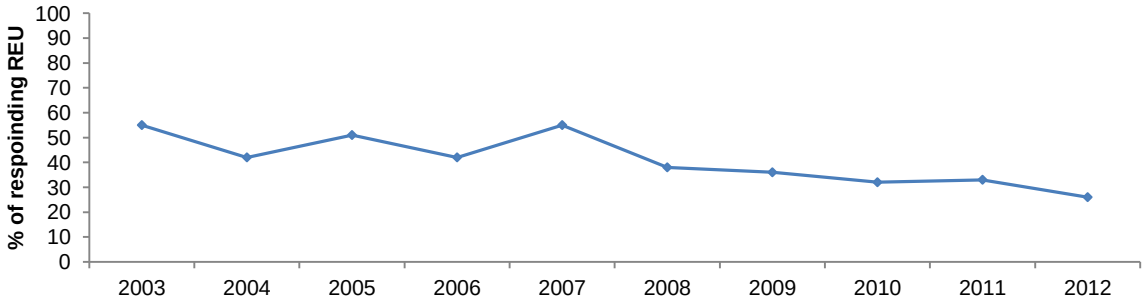
[6] Bingeing is defined as the use of drugs for more than 48 hours continuously without sleep.

Figure 3: Median days used ecstasy in the six months prior to interview, 2003-2012



Source: REU interviews, 2003-2012

Figure 4: Percentage of REU who reported bingeing* on ecstasy during the six months prior to interview, 2003-2012

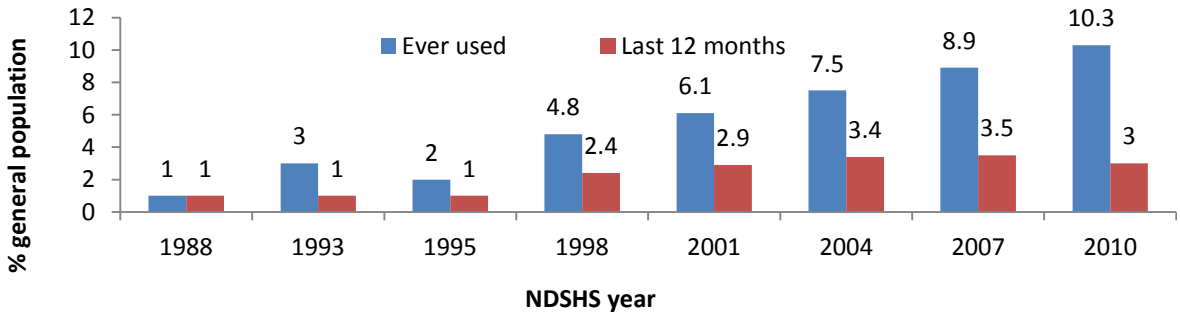


Source: REU interviews, 2003-2012
* Bingeing is defined as the use of drugs for more than 48 hours continuously without sleep

4.2.3 Use of ecstasy in the general population

The 2010 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 2010, 3% of the Australian population aged 14 years and over reported recent (in the last 12 months) ecstasy use (Australian Institute of Health and Welfare, 2011), a prevalence significantly lower than that measured in 2007 (3.5%) (Australian Institute of Health and Welfare, 2011) (see Figure 5).

Figure 5: Prevalence of ecstasy use among the population aged 14 years and over in Australia, 1988-2010



Source: 2010 NDSHS (Australian Institute of Health and Welfare, 2011)

Nationally, the highest prevalence of both reported lifetime (24.2%) and recent (9.9%) ecstasy use was found in the 20 to 29-year-old age group (Australian Institute of Health and Welfare, 2011).

Data from the VYADS suggest evidence of a decrease in the use of ecstasy in 2009 (Victorian Drug and Alcohol Prevention Council, 2010). Of the 16 to 24-year olds surveyed in 2009 (N=5,001), 15% reported having ever used ecstasy, while 9% reported recent use. These figures are lower than those recorded when this study was last conducted in 2004, when 12% of the sample reported recent ecstasy use. Of those who reported past-year ecstasy use in 2009, frequency of use tended to be low: 35% reported using it at least once a month, 27% reported using it every few months, 24% reported using it once or twice a year, and 14% reported ecstasy use on only one occasion; these figures are comparable to those reported in 2004. The vast majority of respondents (99%) reported typically swallowing ecstasy. The median reported age of first ecstasy use for the participants in the VYADS was 17.5 years, lower than the 22.2 years found in the 2010 NDSHS (Australian Institute of Health and Welfare, 2011).

4.3 Methamphetamine use

4.3.1 Methamphetamine use among REU

4.3.1.1 Methamphetamine powder (speed)

In 2012 a higher percentage of REU reported lifetime speed use than in 2011 (94% vs. 88% respectively) and speed use in the preceding six months (77% vs. 69% respectively) (Table 5).

As in previous years, the median reported age of first speed use was 18 years (range=13-33 years). Participants who used speed in the preceding six months reported use on a median of six days (range=1-120). The percentage of REU who reported using speed once a month or less was 57% in 2012 compared to 41% in 2011. Significantly fewer REU reported using speed weekly or more in 2012 (14%) than in 2011 (31%) ($p<0.01$). REU's median reported consumption of speed during a typical session was half a gram and a whole gram in a heavy session.

Table 5: Patterns of speed use among REU, 2008-2012

Speed	2008 (N=100)	2009 (N=100)	2010 (N=100)	2011 (N=101)	2012 (N=100)
Ever used (%)	90	90	88	88	94
Used preceding 6 months (%)	75	72	70	69	77
Of those who had used					
Median days used last 6 months (range)	4 (1-90) (n=73)	5 (1-80) (n=72)	5 (1-180) (n=70)	11 (1-115) (n=70)	6 (1-120) (n=77)
Median quantities used (grams)					
Typical (range)	0.5 (0.1-4) (n=56)	0.5 (0.1-3) (n=42)	0.5 (0.1-4.5) (n=49)	0.5 (0.1-2) (n=63)	0.5 (0.3-5) (n=58)
Heavy (range)	1 (0.1-7) (n=64)	0.5 (0.1-17) (n=46)	1 (0.1-10) (n=53)	1 (0.1-4) (n=64)	1 (0.3-7) (n=61)

Source: REU interviews, 2008-2012

4.3.1.2 Methamphetamine base

In 2012, fewer REU reported having ever used methamphetamine base than in 2011 (22% vs. 32% respectively). The percentage of REU who reported using methamphetamine base in the past six months was 13% in 2012, compared to 12% in 2011 (Table 6). (Note that the very low numbers of recent base users makes meaningful comparisons difficult.) The median reported age of first base use was 19 years (range=15-25). Recent users of methamphetamine base reported using on a median of four days (range=1-18) in the last six months, typically using two points per session (range=0.5-5 points).

Table 6: Patterns of methamphetamine base use among REU, 2008-2012

Base	2008 (N=100)	2009 (N=100)	2010 (N=100)	2011 (N=101)	2012 (N=100)
Ever used (%)	20	18	13	32	22
Used last six months (%)	7	7	3	12	13
Of those who had used					
Median days used last 6 months (range)	10 (1-60)	1 (1-6)	2 (2-10)	5 (1-72)	4 (1-18)
Median quantities used (points)					
Typical (range)	3 (0.5-5) (n=7)	0.85 (0.2-5) (n=7)	1 - (n=1)	3 (0.5-15) (n=9)	2 (0.5-5) (n=9)
Heavy (range)	5 (1-20) (n=5)	0.85 (0.2-8) (n=7)	1 - (n=1)	5 (1.5-20) (n=9)	2 (0.5-10) (n=9)

Source: REU interviews, 2008-2012

4.3.1.3 Crystal methamphetamine

In 2012, the percentage of REU reporting recent use of crystal meth remained high (48%) following a significant increase between 2010 and 2011 (Table 7). REU reported initiating crystal meth use at a median age of 21 years (range=14-38), comparable to previous years. The most commonly reported route of administration of crystal meth in the past six months was smoking (98% in 2012 vs. 87% in 2011). REU reported using one and a half points in a typical session and two and a half points during a heavy session. Fifteen participants in 2012 reported using crystal meth the last time they used ecstasy.

Table 7: Patterns of crystal methamphetamine use among REU, 2008-2012

Crystal methamphetamine	2008 (N=100)	2009 (N=100)	2010 (N=100)	2011 (N=101)	2012 (N=100)
Ever used (%)	53	36	45	56	57
Used last six months (%)	22	13	18	38	48
Of those who had used					
Median days used Last 6 months (range)	4.5 (1-60) (n=22)	3 (1-60) (n=13)	3 (1-24) (n=18)	8 (1-120) (n=37)	8.5 (1-170) (n=48)
Median quantities used (points)					
Typical (range)	1 (0.1-5) (n=18)	1.5 (0.1-4) (n=9)	1 (1-6) (n=13)	2 (0.2-10) (n=36)	1.5 (0.1-7) (n=40)
Heavy (range)	2 (0.1-10) (n=17)	2 (0.1-15) (n=9)	1.5 (1-6) (n=11)	3 (0.4-17) (n=36)	2.5 (0.1-10) (n=37)

Source: REU interviews, 2008-2012

4.3.1.3 Location of methamphetamine use

As in 2011, in 2012 REU most commonly reported recent use of speed in nightclubs (26%), their homes (20%), or friends' homes (18%). Crystal meth, however, is predominantly used in private settings – friends' homes (50%) or the user's own home (24%). Small numbers precluded further analysis of the locations of recent base use.

4.3.2 Methamphetamine use in the general population

The 2010 NDSHS provides the most recent national figures regarding the prevalence of methamphetamine use in the Australian general population. The report indicated that in 2010, 2.1% of the Australian population aged 14 years and over reported recent (in the last 12 months) use of methamphetamines, not significantly different from the 2.3% recorded in the 2007 survey (Australian Institute of Health and Welfare, 2011). The figures for Victoria are almost identical. As with ecstasy use, the highest prevalence of recent (5.9%) methamphetamine use nationally occurred in the 20-29-year-old age group. Lifetime methamphetamine use was highest among the 30-39-year-old age group (14.7%) and the 20-29-year-old age group (14.5%) (Australian Institute of Health and Welfare, 2011).

In the 2009 VYADS, the percentage of 16- to 24-year-olds reported lifetime use of amphetamines was significantly lower than in 2004 (11.5% vs. 16.3% respectively) (Premier's Drug Prevention Council, 2005). Reported recent amphetamine use was also significantly lower in 2009 than 2004 (6.6% vs. 10.2% respectively. Similar to the 2004 survey, the 2009 VYADS suggested relatively infrequent use of methamphetamine among

the younger age group in years prior to 2010: among recent methamphetamine users, 41% reported using approximately once a month or more frequently, 28% reported using every few months, 19% reported using once or twice a year, and 11% reported having only used methamphetamine on one occasion. According to the VYADS, amphetamines were most commonly snorted (71%), swallowed (66%) or smoked (34%) (Premier's Drug Prevention Council, 2005). Smoking amphetamines increased in prevalence since 2004, when the behaviour was reported by 23% of the sample.

4.4 Cocaine use

4.4.1 Cocaine use among REU

A slightly higher proportion of REU reported having ever used cocaine in 2012 than in 2011 (78% vs. 74% respectively) and having used in the preceding six months (54% vs. 43% respectively), though these differences were not statistically significant (Table 8).

The median age of first use of REU who reported using cocaine was 20 years (range=16-35). In 2012, REU used cocaine on a median of three days (range=1-50), and used a median of half a gram during a typical session and one gram during a heavy session. The majority of users reported snorting cocaine (96%). Of those who reported using in the last six months, only 19% (n=10) reported using cocaine more frequently than once a month. Among recent users, 15% reported also using cocaine the last time they used ecstasy, 13% reported bingeing on it, and no participant reported using cocaine when coming down from ecstasy.

Table 8: Patterns of cocaine use among REU, 2008-2012

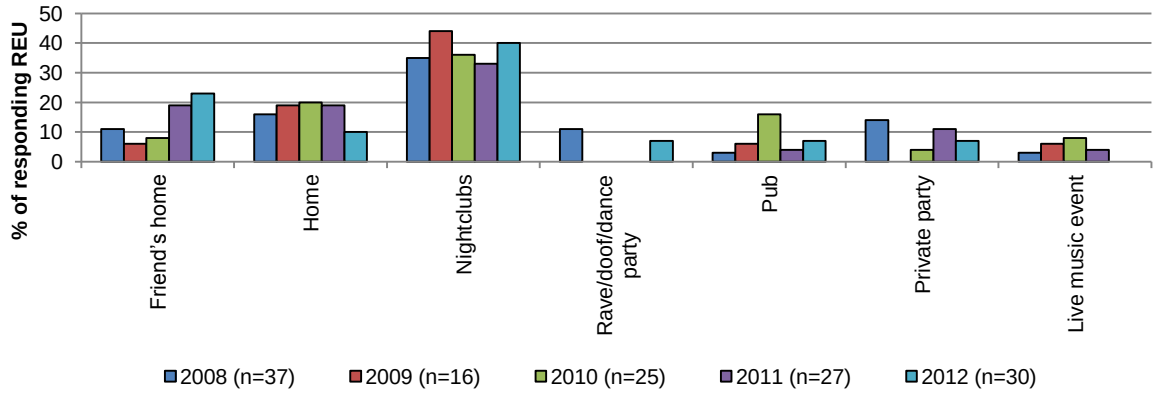
Cocaine	2008 (N=100)	2009 (N=100)	2010 (N=100)	2011 (N=101)	2012 (N=100)
Ever used %	79	75	76	74	78
Used last six months %	51	48	54	43	54
Of those who had used					
Median days used last 6 months (range)	3 (1-40) (n=51)	2 (1-50) (n=48)	2 (1-24) (n=54)	2.5 (1-60) (n=42)	3 (1-50) (n=53)
Median quantities used (grams)					
Typical (range)	0.5 (0.1-7) (n=40)	0.5 (0.1-2) (n=32)	0.5 (0.05-3) (n=45)	1 (0.1-5) (n=33)	0.5 (0.2-3) (n=39)
Heavy (range)	1 (0.1-7) (n=43)	1 (0.1-4) (n=35)	0.5 (0.05–8) (n=46)	1 (0.1-5) (n=46)	1 (0.2-3) (n=40)

Source: REU interviews, 2008-2012

The most frequently reported last location of cocaine use was a nightclub (39%) or a friend's home (23%) in 2012 (Figure 6).

KE reported that cocaine was used by a minority of the population they see and suggested that this may be due to its low purity. One KE reported noticing more users from the trade industry than in the past.

Figure 6: Location of most recent cocaine use, 2008-2012



Source: REU interviews, 2008-2012

4.4.2 Cocaine use in the general population

The 2010 NDSHS provides the most recent national figures for prevalence of cocaine use in the Australian general population. This survey indicates that in 2010, 2.1% of the Australian population aged 14 years and over reported recent (in the last 12 months) cocaine use, a continued increase since the 1993 survey estimate of 0.5% (Australian Institute of Health and Welfare, 2011). The figure for Victoria (2.3%) was similar to the national figure in 2010.

Reported lifetime cocaine use was similar in the 20 to 29 and 30 to 39-year-old age groups (14.1% and 14.6% respectively). As with ecstasy and methamphetamine described above, the highest prevalence of recent cocaine use (6.5%) was reported by the 20- to 29-year-old-age group nationally (Australian Institute of Health and Welfare, 2011). Of the 16- to 24-year-olds surveyed in the 2009 VYADS (N=5001), 6.8% reported having ever used cocaine in their lifetime, and 4.1% reported use in the 12 months prior to survey (Victorian Drug and Alcohol Prevention Council, 2010).

4.5 Ketamine use

4.5.1 Ketamine use among REU

In 2012, 35% of REU reported recent use of ketamine, slightly higher than the 26% measured in 2011 (Table 9). The median reported age of first use was 20 years (range=16-35). As seen in previous years, ketamine remains infrequently used, on a median of two days in the preceding six months (range=1-15). Recent ketamine users most commonly quantified their use in terms of bumps, reporting using a median of 2.5 bumps during a typical (range=0.5-10) and heavy session of use (range=0.5-15), typically by snorting (91%). Fewer than five REU reported bingeing on ketamine, using it with ecstasy or coming down from ecstasy.

Table 9: Patterns of ketamine use among REU, 2008-2012

Ketamine	2008 (N=100)	2009 (N=100)	2010 (N=100)	2011 (N=101)	2012 (N=100)
Ever used (%)	55	43	53	60	63
Used last 6 months (%)	20	21	23	26	35
Of those who had used					
Median days used last 6 months (range)	3 (1-50) (n=19)	2 (1-10) (n=21)	2 (1-12) (n=23)	4 (1-40) (n=26)	2 (1-15) (n=34)
Median quantities used (bumps)					
Typical (range)	2.5 (0.1-15) (n=12)	0.5* (0.25-1) (n=5)	2 (1-10) (n=12)	3 (0.3-8) (n=19)	2.5 (0.5-10) (n=24)
Heavy (range)	3 (0.1-20) (n=13)	0.5* (0.25-7) (n=5)	2 (1-10) (n=12)	3 (0.3-15) (n=18)	2.5 (0.5-15) (n=24)

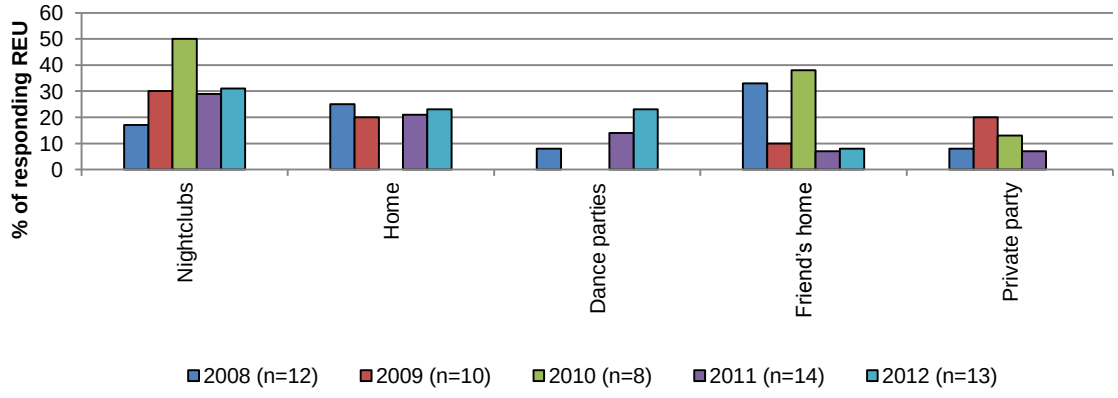
Source: REU interviews, 2008-2012

* In 2009, median quantities were described in points

In 2012 REU reported their most recent ketamine use as being at a nightclub (n=4), at home (n=3), or at a rave/doof/dance party (n=3) (Figure 7).

All KE reported ketamine use to be uncommon among REU; however, one KE reported ketamine becoming more available in the past 12 months and noticed use at some clubs and festivals.

Figure 7: Location of most recent ketamine use, 2008-2012



Source: REU interviews, 2008-2012

4.5.2 Ketamine use in the general population

Few data are available on the prevalence of ketamine use in the Australian general population. Only 0.2% of respondents to the 2010 NDSHS reported ketamine use in the previous 12 months and only 1.4% reported ever having used the drug (Australian Institute of Health and Welfare, 2011). The available Victorian data also suggest low prevalence of ketamine use, with 0.5% of the Victorian population aged 14 years and older estimated to have used ketamine in the previous 12 months (Australian Institute of Health and Welfare, 2011).

4.6 GHB use

4.6.1 GHB use among REU

Seven REU reported using GHB in the last six months in 2012 (Table 10). Participants who ever reported using GHB had a median age of first use of 20 years (range=15-35).

REU reported recent GHB use on a median of six days (range=1-135) in the preceding six months and using a median of 4.5 ml during a typical or heavy session, slightly lower than in 2011. All REU reported GHB use by the oral route.

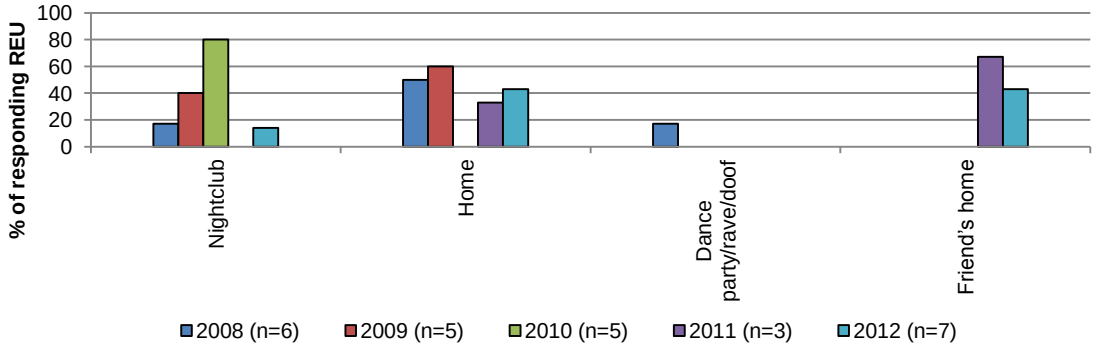
Table 10: Patterns of GHB use among REU, 2008-2012

GHB	2008 (N=100)	2009 (N=100)	2010 (N=100)	2011 (N=101)	2012 (n=100)
Ever used (%)	20	15	23	24	24
Used last six months (%)	11	10	12	6	7
Of those who had used Median days (range) used last 6 months	3 (1-15) (n=11)	2.5 (1-5) (n=10)	2 (1-24) (n=12)	6.5 (1-25) (n=6)	6 (1-135) (n=7)
Median quantities used (ml) Typical (range)	3 (1-20) (n=10)	4 (0.5-15) (n=9)	3 (1.8-10) (n=11)	5.5 (1.8-50) (n=6)	4.5 (2.5-7) (n=5)
Heavy (range)	3 (2-40) (n=10)	5 (1-30) (n=9)	6.5 (2-20) (n=10)	16.5 (1.8-50) (n=6)	4.5 (3-15) (n=5)

Source: REU interviews, 2008-2012

KE reported GHB use had been low in the past 12 months and only used by particular groups of users (e.g., ravers). KE suggested that REU have divided opinions regarding GHB use due to past festival events being cancelled because of GHB overdoses. KE suggested that the reported stigma around using GHB at festivals is slowly declining as recent overdoses did not seem to prevent the festival running the following year.

Figure 8: Location of most recent GHB use, 2008-2012



Source: REU interviews, 2008-2012

4.6.2 GHB use in the general population

Few data are available regarding the prevalence of GHB use in the general Australian population. Only 0.1% of respondents to the 2010 NDSHS reported GHB use in the last 12 months, and only 0.8% reported ever having used the drug (Australian Institute of Health

and Welfare, 2011). The available Victorian data suggest an even lower prevalence of GHB use, with 0.2% of the Victorian population aged 14 years and older estimated to have used GHB in the previous 12 months (Australian Institute of Health and Welfare, 2011).

4.7 LSD use

4.7.1 LSD use among REU

In 2012, 38% of the REU sample reported use of LSD within the last six months, significantly lower than the 57% recorded in 2011 ($p<0.01$) (Table 11). Participants who reported using LSD reported a median age of first use of 19 years (range=13-30).

Recent users of LSD reported use of the drug on a median of three days in the preceding six months (range=1-30). The median number of tabs reported as used during a typical session was one, and two tabs during a heavy session, with the majority (95%) using via the oral route. Three REU reported bingeing on LSD, three reported using LSD with ecstasy and none reported using LSD when coming down from ecstasy.

Table 11: Patterns of LSD use among REU, 2008-2012

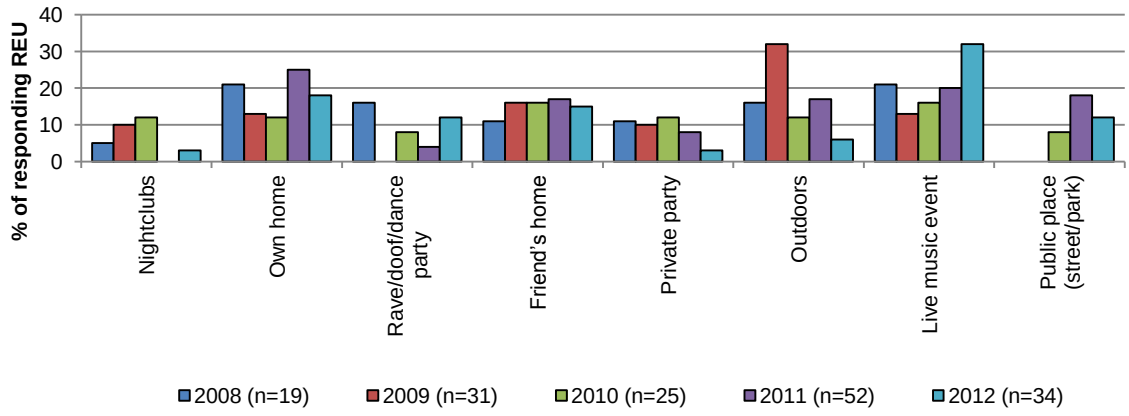
LSD	2008 (N=100)	2009 (N=100)	2010 (N=100)	2011 (N=101)	2012 (N=100)
Ever used (%)	51	63	72	82	63
Used last 6 months (%)	29	46	49	57	38
Of those who had used Median days used last 6 months (range)	2 (1-12) (n=29)	2 (1-20) (n=46)	3 (1-36) (n=49)	4(1-48) (n=58)	3 (1-30) (n=38)
Median quantities used (tabs) Typical (range)	1 (0.5-3) (n=28)	1 (0.25-3) (n=41)	1 (0.5-3) (n=45)	1 (0.5-6) (n=55)	1 (0.5-3) (n=34)
Heavy (range)	2 (0.5-9) (n=26)	1.5 (0.25-20) (n=41)	1.5 (0.5-10) (n=44)	2 (0.5-10) (n=55)	2 (0.5-15) (n=34)

Source: REU interviews, 2008-2012

The 2012 REU sample most commonly reported their most recent LSD use as being at a live music event (31%) or at home (17%).

Nearly all KE described LSD use as rare among the populations they had contact with in the previous 12 months.

Figure 9: Location of most recent LSD use, 2008-2012



Source: REU interviews, 2008-2012

4.7.2 Hallucinogen use in the general population

Little information is 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 synthetic hallucinogens such as LSD, psilocybin and angel dust, and naturally occurring hallucinogens such as magic mushrooms, and datura (Australian Institute of Health and Welfare, 2011). The most recent data from the 2010 NDSHS report indicates that 1.4% of the general Australian population reported using hallucinogens in the preceding 12 months. It was further estimated that 8.8% of the general Australian population aged 14 years and older had ever used a hallucinogenic substance, a statistically significant increase on the 2007 estimate of 6.7%. The estimates of use within the Victorian general population were consistent with national figures, with 1.8% estimated to have recently used a hallucinogenic substance in 2010 (Australian Institute of Health and Welfare, 2011).

The 2009 VYADS reported on the lifetime and recent use of synthetic hallucinogens, including LSD. Of this sample (N=5001), 4% reported having ever used a synthetic hallucinogen and 2.4% reported use in the preceding 12 months (Victorian Drug and Alcohol Prevention Council, 2010).

4.8 Cannabis use

4.8.1 Cannabis use among REU

Reports of recent cannabis use remain common among REU with 85% of the 2012 sample reporting use within the last six months (Table 12). The median reported age of first use was 15 years (range=12-27). REU reported using cannabis on a median of 72 days (three times a week) with 24% reporting daily use in the preceding six months. Furthermore, 44% of recent cannabis users reported using cannabis with ecstasy, 40% reported using cannabis to come down from ecstasy and 21% reported bingeing on cannabis. Approximately one-third (34%) of the recent users reported recently swallowing cannabis while 85% of recent users reported smoking, with most reporting smoking a joint (46%) or a "cone"[7] (27%) the last time they smoked. REU used a median of 1.3 grams (range=0.5-4.5) the last time they used cannabis.

Table 12: Patterns of cannabis use among REU, 2008-2012

Cannabis	2008 (N=100)	2009 (N=100)	2010 (N=100)	2011 (N=101)	2012 (N=100)
Ever used %	99	95	97	96	97
Used last six months %	84	85	89	86	85
Of those who had used					
Median days (range) used last 6 months	33 (1-180)	24 (1-180)	30 (1-180)	48 (2-180)	72 (1-180)

Source: REU interviews, 2008-2012

KE reported cannabis use to be common among REU and consistent in the past 12 months. Cannabis use was reported by KE to be the second most popular reason for seeking drug treatment. KE suggested REU were commonly using cannabis with crystal meth and reported cannabis use was more prevalent in road collisions in recent years.

4.8.2 Cannabis use in the general population

The 2010 NDSHS provides records of the national prevalence of cannabis use in the general population. In 2010, 10.3% of the Australian population aged 14 years and over reported recent (in the last 12 months) cannabis use (Australian Institute of Health and Welfare, 2011), a statistically significant increase on the 2007 estimate of 9.1%. Figures for Victoria were lower than the national figures in 2010, with 9.4% reporting use of cannabis within the past 12 months (Australian Institute of Health and Welfare, 2011).

Data from the 2009 VYADS show that cannabis continues to be the illicit drug most frequently used by young Victorians (Victorian Drug and Alcohol Prevention Council, 2010). Thirty-eight per cent of the 16- to 24-year-olds sampled reported lifetime use of cannabis, and 21% reported use in the 12 months preceding the survey. Five per cent of recent users reported using cannabis daily.

[7] A cone refers to a small shaped cone on a bong (marijuana smoking device) used to hold marijuana for burning.

4.9 Other drug use

4.9.1 Alcohol use among REU

All REU reported alcohol use in their lifetime and nearly all reported use in the preceding six months, as in previous years (Table 13). The median reported age of first alcohol use was 14.5 years (range=8-19).

As seen in 2011, REU reported drinking on a median of 48 days (two times per week) (range=1-180) in the preceding six months in 2012. Eighty per cent of participants reported drinking while using ecstasy; of these REU, 78% reported drinking more than five standard drinks while doing so. Four per cent reported drinking while coming down from ecstasy in 2012, significantly fewer than the 12% in 2011 (p=0.04). A higher percentage of REU reported drinking alcohol during a stimulant drug binge in 2012 than in 2011 (82% vs. 66% respectively).

Table 13: Patterns of alcohol use among REU, 2008-2012

Alcohol	2008 (N=100)	2009 (N=100)	2010 (N=100)	2011 (N=101)	2012 (N=100)
Ever used %	99	100	99	99	100
Used last 6 months %	97	99	97	97	97
Usually drink alcohol while using ecstasy	86	84	86	80	80
Usually drink more than 5 standard drinks while using ecstasy*	82	81	77	78	78
Usually drink while coming down from ecstasy	32	15	2	12	4
Usually drink more than 5 standard drinks while coming down from ecstasy**	74	64	100	92	75
Drank alcohol during a binge***	51	89	87	66	82

Source: REU interviews, 2008-2012

* 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

Alcohol continues to be one of the drugs most commonly reported as problematic by KE. KE described alcohol use as widespread among REU and often used with other drugs, leading to violence and increased risk of overdose. A drug treatment worker reported alcohol was the drug associated with the greatest treatment demand. KE expressed concerns regarding REU's response to high alcohol prices at events by drinking large volumes of alcohol before going out ("pre-loading").

4.9.2 Tobacco

Consistent with previous years, reports of lifetime (94%) and recent (87%) tobacco use were common among REU in 2012 with the median reported age of first use being 15.5 years (range=8-28). Fewer REU reported daily smoking in 2012 than in 2011 (49% vs. 69%).

4.9.3 Benzodiazepines

Fewer REU reported benzodiazepine use in their lifetime in 2012 than in 2011 (60% vs. 71%). Forty-five per cent of REU reported benzodiazepine use in the preceding six months, unchanged from 2011. Of those who reported benzodiazepine use, the majority reported illicit use (91% lifetime and 87% recent use).

Among recent illicit benzodiazepine users, the median reported age of first use was 20 years (range=15-38) with recent users reporting use on a median of five days (range=1-180). Among recent benzodiazepine users (licit or illicit) in 2012, significantly fewer REU reported using benzodiazepines while bingeing (6% vs. 16% in 2011; p=0.02), while using ecstasy (2% vs. 26% in 2011; p<0.01), and while coming down from ecstasy (13% vs. 47% in 2011; p<0.01).

4.9.4 Antidepressants

In 2012, 36% of the REU sample reported lifetime use of an antidepressant (licit or illicit), compared to 31% in 2011. Reported recent use of antidepressants was slightly higher in 2012 than in 2011 (19% vs. 11% respectively). Four participants reported only illicit use. The mean age of first use reported by licit antidepressant users was 20 years (range=11-30).

4.9.5 Inhalants

Just over half (53%) of REU reported lifetime use of amyl nitrate in 2012, compared to 62% in 2011. Reported use in the preceding six months was similar in 2012 and 2011 (21% vs. 24% respectively). In 2012, compared with 2011, significantly fewer REU reported lifetime use of nitrous oxide (39% vs. 54%; p=0.03) and recent use (22% vs. 33%). The median reported age of first use of amyl nitrate was 18 years (range=14-30) and 19 years for nitrous oxide (range=13-31). Amyl nitrate was infrequently used, with REU reporting using on a median of two days (range=1-48) in the preceding six months. REU reported using nitrous oxide on a median of five days (range=1-72) in the preceding six months.

4.9.6 Psilocybin or magic mushrooms (mushrooms)

In 2012 75% of REU reported having ever used mushrooms, compared to 83% in 2011. The percentage of REU reporting using mushrooms in the preceding six months was also slightly lower in 2012 than in 2011 (38% vs. 41% respectively). The median reported age of first use of mushrooms was 19 years (range=14-34). Reports of mushroom use were infrequent; REU reported using on a median of two days in the previous six months (range=1-7).

4.9.7 Heroin and other opiates

Reported lifetime use was lower in 2012 than in 2011 for heroin (17% vs. 28% respectively), methadone (7% vs. 13% respectively), buprenorphine (7% vs. 11% respectively) and licit use of other opiates (9% vs. 11% respectively). The percentage of REU reporting lifetime illicit use of other opiates was significantly lower in 2012 than in 2011 (25% vs. 39% respectively; p=0.04).

The proportions of REU reporting using opiates in the preceding six months were also lower in 2012 than in 2011 for heroin (5% vs. 15% respectively; p=0.02), methadone (2% vs. 6% respectively), buprenorphine (3% vs. 5% respectively), illicit use of other opiates (10% vs. 18% respectively).

In 2012 significantly fewer REU reported lifetime use (23% vs. 74%; p<0.01) and recent use (12% vs. 52%; p<0.01) of over-the-counter codeine than in 2011. Twelve participants

reported using codeine for reasons other than pain relief on a median of 4.5 days (range=1-180) in the preceding six months.

4.9.8 Pharmaceutical stimulants

Fewer REU reported having ever used any pharmaceutical stimulants in 2012 than in 2011 (46% vs. 58% respectively). Of those who reported ever using pharmaceutical stimulants, 93% reported ever using illicitly. Twenty-one per cent of REU reported using pharmaceutical stimulants in the preceding six months, of which 90% were illicit. The median reported age of first illicit use was 19 years (range=14-25). Illicit use was infrequent; median frequency of use was three days, involving a median of 2.5 pills.

4.10 Emerging psychoactive substance use

A list of other drugs included in the 2012 EDRS survey is listed in Appendix 1. These other drugs are regarded as emerging psychoactive substances (EPS) as they are not as commonly reported compared to ecstasy and other ERDs but are emerging in the drug market for their similar effects. Some of these drugs were previously regarded as “legal highs” because some were made from legal products, but not necessarily because they were safe to use.

The most common EPS recently used by REU (past six months) were synthetic cannabinoids (n=16), DMT (dimethyltryptamine) (n=14), 2CB (4-bromo-2,5-dimethoxyphenethylamine) (n=10) and mephedrone (4-methylmethcathinone) (n=8). Capsules with unknown contents (n=9) were also one of the common ‘other’ drug recently used by REU. Among REU who reported ever using these EPS, there were no significant changes in the percentages reporting recent use in 2012 compared to 2011 with the exception of 2CB (67% vs. 6% respectively; $p<0.01$) and mephedrone (29% vs. 68% respectively; $p<0.01$). Note that in 2011 REU were not asked about capsules of unknown contents.

KE did not report observing an increase in 2CB use in their populations and none commented on changes in mephedrone use.

5 DRUG MARKET: PRICE, PURITY, AVAILABILITY and SUPPLY

Summary

- Between 2011 and 2012, the median price of ecstasy increased from $25 to $30 per pill.
- More than 25% of REU reported current purity of ecstasy as being high in 2012 compared to 6% in 2011.
- Ecstasy purity from seizures analysed by law enforcement agencies in Victoria doubled (15% in 2010/2011 and 33% in 2011/2012).
- Reported purity patterns varied for different types of methamphetamines; fewer REU reported speed to be of high purity (30% in 2012 vs. 38% in 2011) while more REU reported crystal meth to be of high purity (63% in 2012 vs. 57% in 2011).
- The mean purity of all seizures of methamphetamine analysed in Victoria during the 2011/2012 financial year was higher than 2010/2011 (57% vs. 39% respectively.
- The mean purity of all seizures of cocaine analysed in Victoria during the 2011/2012 financial year was higher than 2010/2011 (49% vs. 35% respectively.

5.1 Ecstasy

5.1.1 Price

The median reported price of ecstasy was $30 per pill (Table 14). The reported cost per pill was cheaper when purchased in bulk; the median reported cost per pill was approximately $20 (range=$15-$35) when 20-50 pills were purchased and $17 (range= $10-$22) for 100 pills.

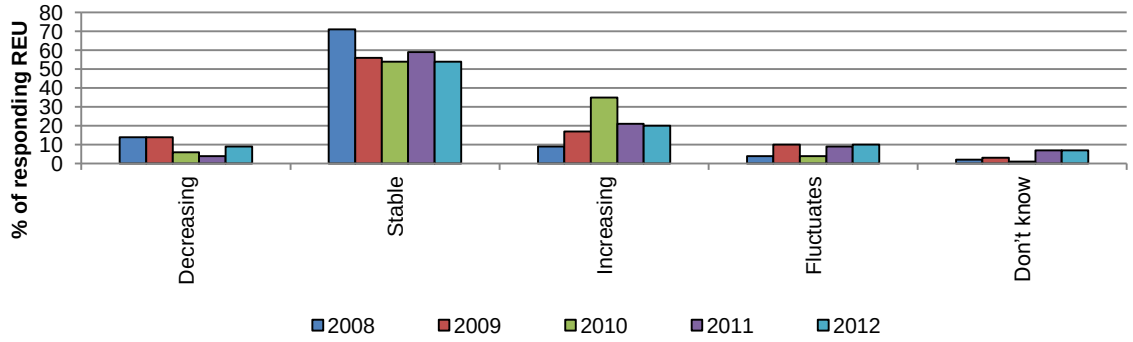
Table 14: Price of ecstasy purchased by REU, 2008-2012

	2008	2009	2010	2011	2012
Median price per tablet (range)	$27.50 ($17.50-$40)	$25 ($10-$35)	$25 ($6-$35)	$25 ($10-$50)	$30 ($7-$50)

Source: REU interviews, 2008-2012

Approximately half of REU reported the price of ecstasy was stable in 2012, while 20% reported a recent increase (Figure 10).

Figure 10: Recent changes in price of ecstasy purchased by REU, 2008-2012

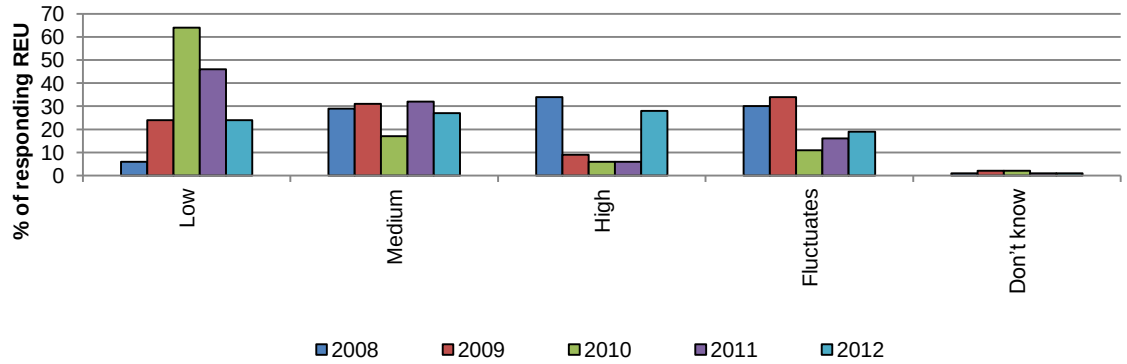


Source: REU interviews, 2008-2012 (N=100 each year, N=101 in 2011)

5.1.2 Purity

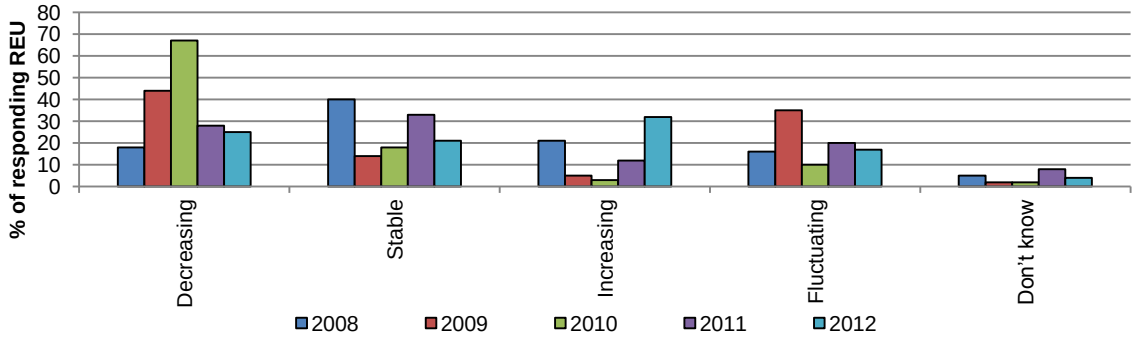
In 2012, a significantly higher percentage of REU reported the current purity of ecstasy was high than in 2011 (28% vs. 6% respectively; p<0.01) (Figure 11). Furthermore, a significantly higher percentage of REU reported the purity of ecstasy was increasing in the preceding six months in 2012 than in 2011 (32% vs. 12% respectively; p<0.01) (Figure 12).

Figure 11: REU reports of current ecstasy purity, 2008-2012



Source: REU interviews, 2008-2012 (N=100 each year, N=101 in 2011)

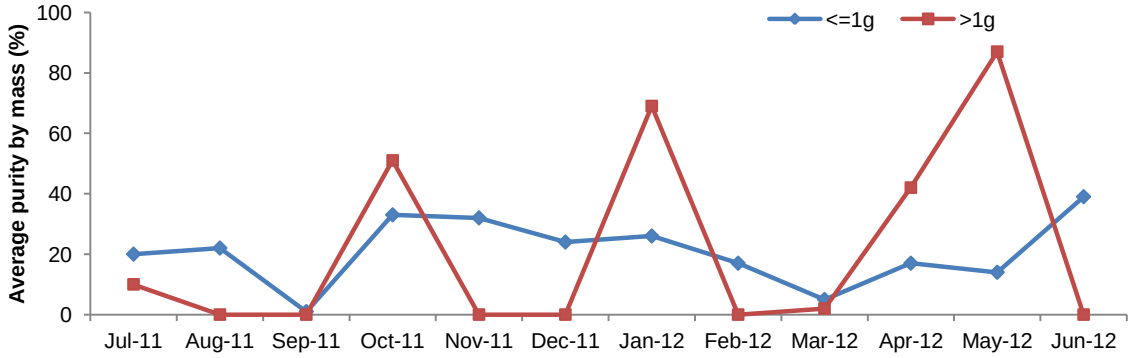
Figure 12: REU reports of change in purity of ecstasy in the preceding six months, 2008-2012



Source: REU interviews, 2008-2012 (N=100 each year, N=101 in 2011)

Ecstasy seizures analysed by Victoria Police Forensic Services Department during the 2011/2012 financial year averaged 33% purity (range=2%-87%) (Figure 13), double the average in the previous financial years (15% in 2010/2011).

Figure 13: Purity of ecstasy seizures (includes MDMA, MDEA and MDA) by Victorian law enforcement, July 2011-June 2012

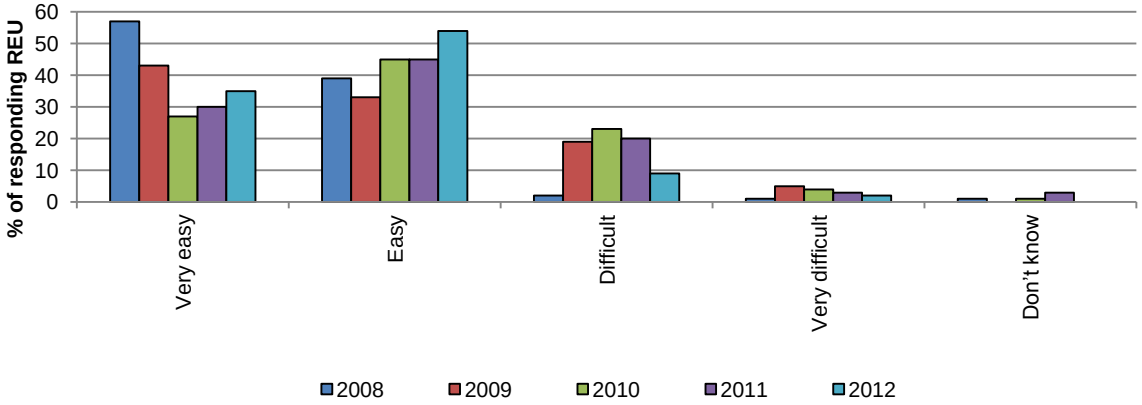


Source: Victoria Police Forensic Services Department

5.1.3 Availability

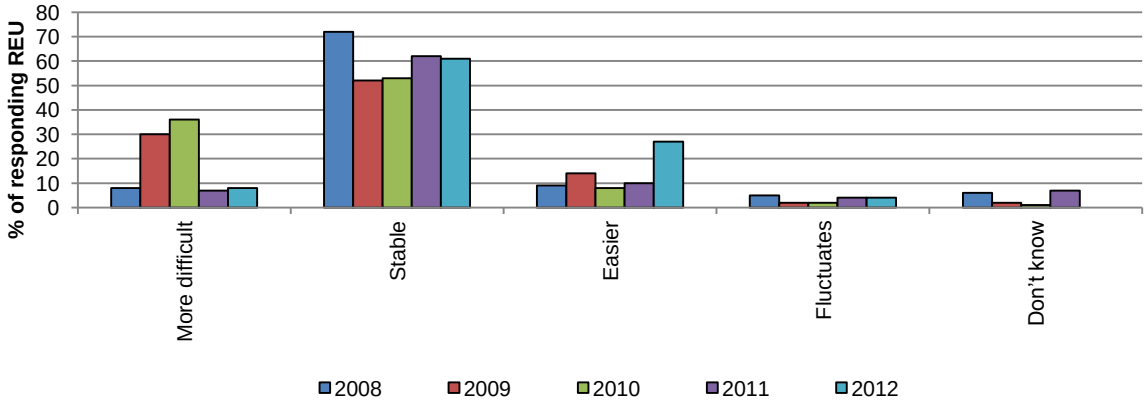
In 2012, a significantly lower percentage of REU reported that ecstasy was difficult to source than in 2011 (9% vs. 20% respectively; p=0.03) (Figure 14). Approximately two-thirds (61%) of REU reported access being stable in the six months preceding the interview (Figure 15).

Figure 14: REU reports of current availability of ecstasy in the preceding six months, 2008-2012



Source: REU interviews, 2008-2012 (N=100 each year, N=101 in 2011)

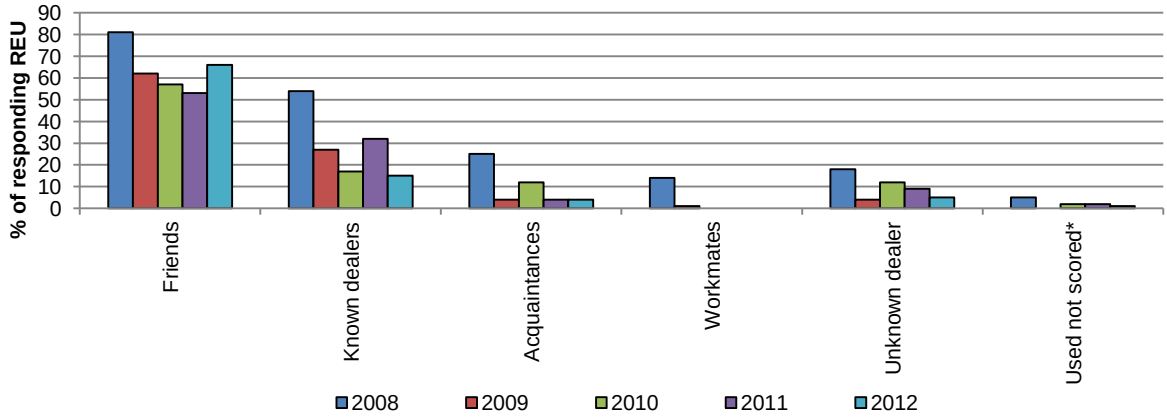
Figure 15: REU reports of changes in availability of ecstasy in the preceding six months, 2008-2012



Source: REU interviews, 2008-2012 (N=100 each year, N=101 in 2011)

As with previous years, most 2012 REU reported that in the six months prior to interview they had obtained ecstasy from friends (66%) or known dealers (15%) (Figure 16). In 2012 ecstasy was reported to be most commonly obtained at their friends' homes (33%) or nightclubs (18%) (Figure 17).

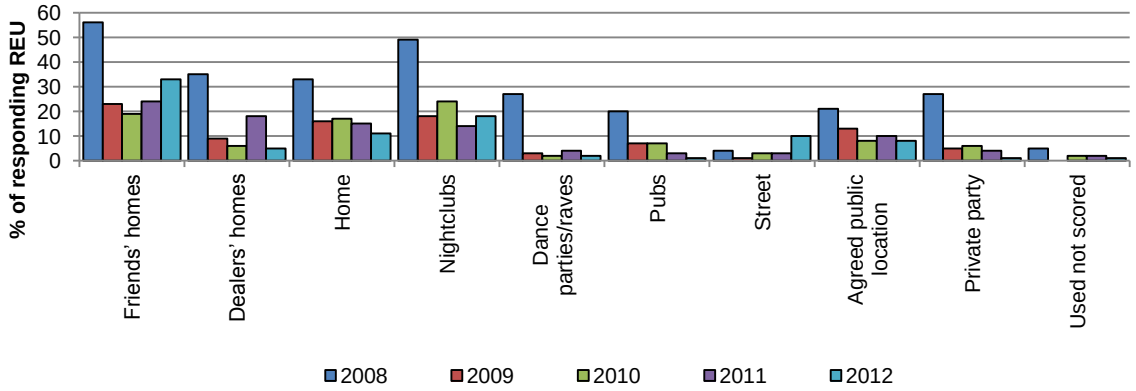
Figure 16: People from whom ecstasy was last purchased in the preceding six months, 2008-2012



Source: REU interviews, 2008-2012 (N=100 each year, N=101)

Note: 2008 data represent the person from whom ecstasy was purchased in the last six months, not the *last* time

Figure 17: Locations where ecstasy was last purchased in the preceding six months, 2008-2012



Source: REU interviews, 2008-2012 (N=100 each year, N=101 in 2011)

Note: 2008 data represent the person from whom ecstasy was purchased in the last six months, not the *last* time

5.1.4 Ecstasy markets and patterns of purchasing ecstasy

Patterns of ecstasy purchase by 2012 REU were consistent with previous years. The participants purchased a median of four pills (range=1-50), most on a fortnightly to monthly basis (82%), and usually obtained pills for themselves and others (55%) (Table 15).

Table 15: Patterns of purchasing ecstasy, 200-2012

	2008 (N=100)	2009 (N=100)	2010 (N=100)	2011 (N=101)	2012 (N=100)
Median no. of people purchased from	3	4	3	3	3
Purchased for (%)					
Self only	27	33	23	34	41
Self and others	67	66	73	64	55
Others only	0	1	1	0	3
No. of times purchased in the last 6 months (%)	40	47	40	47	37
1-6	26	30	40	38	42
7-12	24	22	18	13	15
13-24	4	1	2	2	2
25 +					
Median no. of ecstasy tablets purchased	5	5	5	4	4
Able to purchase other drugs from main dealer (%)*	67	-	-	-	-

Source: REU interviews, 2008-2012

* Among those who reported being able to purchase other drugs from main dealer. Not collected in 2009-2012

5.2 Methamphetamine

5.2.1 Price

Consistent with previous years, the median reported price per gram of speed was $200 (Table 16). Of the 39 REU who commented on the recent price of speed in 2012, 64% reported that the price had remained stable in the preceding six months. The median reported price per point of crystal meth was $100, unchanged from in 2011. Of the 38 REU who commented on the recent price of crystal meth, 68% reported the price was stable in the preceding six months. Small numbers precluded analysis of the prices of meth base (n=6).

Table 16: Price of various methamphetamine forms purchased by REU, 2008-2012

Median price ($)	2008	2009	2010	2011	2012
Speed					
Point	$50 ($20-$120)(n=7)	$25 ($20-$30) (n=2)	$20 ($15-$200) (n=6)	$40 ($20-$100) (n=25)	$50 ($14-$200) (n=7)
Half gram	–	$100 (n=1)	$100 ($80-$100) (n=3)	$110 ($100-$120) (n=2)	$200 ($100-$300) (n=2)
Gram	$200 ($100-$300) (n=52)	$190 ($135-$320) (n=31)	$200 ($90-$250) (n=21)	$200 ($60-$600) (n=51)	$200 ($75-$300) (n=48)
Ounce	–	–	–	–	--
Base					
Point	$30 ($25-$35) (n=4)	–	–	$40 ($20-$60) (n=2)	--
Half gram	–	–	–	–	--
Gram	$150 (n=1)	$300 (n=1)	–	$180 ($60-$450) (n=5)	$300 ($300-$350) (n=3)
Crystal					
Point	$50 ($40-$50) (n=8)	$50 ($40-$50) (n=5)	$85 ($50-$100) (n=4)	$100 ($20-$200) (n=19)	$100 ($60-$200) (n=32)
Half gram	–	–	–	–	$350 (n=1)
Gram	$237.50 ($150-$500) (n=10)	$400 ($200-$450) (n=4)	$800 ($450-$1000) (n=3)	$800 ($200-$1000) (n=19)	$700 ($300-$800) (n=21)
Quarter ounce	–	–	–	–	--

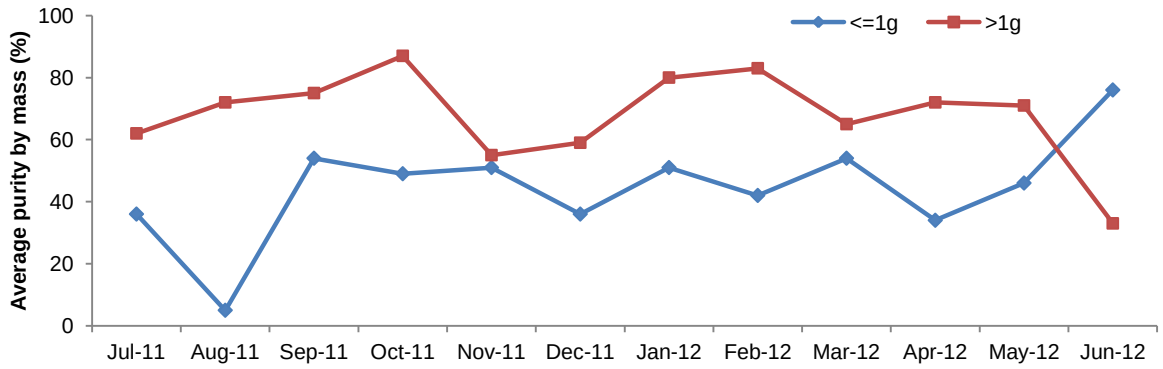
Source: REU interviews, 2008-2012

5.2.2 Purity

In 2012, fewer REU reported the purity of speed as high than in 2011 (30% vs. 38% respectively); however, this difference was not significant. Just under half (44%) of REU who commented in 2012 perceived recent speed purity to be stable in the preceding six months, consistent with results from 2011. In 2012 slightly more REU reported crystal meth was of high purity (63% vs. 57% in 2011) and crystal meth purity was stable in the preceding six months (55% compared to 36% in 2011). Small numbers precluded analysis of perceptions of the purity of base (n=6).

The mean purity of all seizures of methamphetamine analysed by the Victoria Police Forensic Services Department during the 2011/2012 financial year was 57% (range=5%-87%) (Figure 18), higher than the purity measured in the 2010/2011 financial year (39%).

Figure 18: Average purity of methamphetamine seizures by Victorian law enforcement, July 2011-June 2012



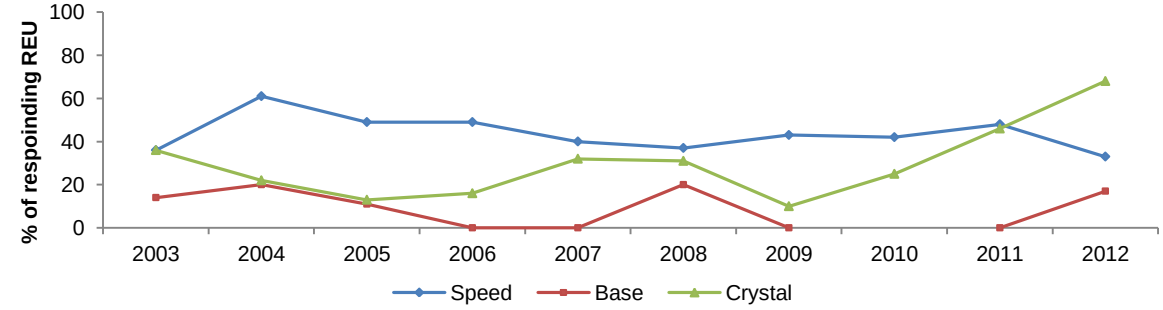
Source: Victoria Police Forensic Services Department

5.2.3 Availability

In 2011 fewer REU reported speed was very easy or easy to obtain than in 2011 (75% vs. 92% respectively). Of the REU who commented on the availability of crystal meth in 2012, a higher percentage reported that it was very easy or easy to obtain than in 2011 (95% vs. 89% respectively).

Figure 19 presents the percentages of REU who reported various forms of methamphetamine as very easy to obtain in 2003-2012.

Figure 19: 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, 2003-2012



Source: REU interviews, 2003-2012
Note: No REU responded to the base questions in 2010

In 2012, 70% of those who commented on ease of access to speed (n=61) and 55% of those who commented on ease of access to crystal meth (n=38) in the preceding six months reported it to be stable, consistent with the percentages reported in 2011.

As in 2011, in 2012 REU mostly reported last purchasing speed from friends (51%) or a known dealer (30%), and obtaining it in a private home – a friend's home (38%), dealer's home (18%) or their own home (8%). In relation to crystal meth, in 2012, REU most commonly reported last purchasing from friends (45%) or a known dealer (34%), and obtaining it from a private home – a friend's (47%) or dealer's home (16%). Small numbers precluded further analysis of base availability.

5.3 Cocaine

5.3.1 Price

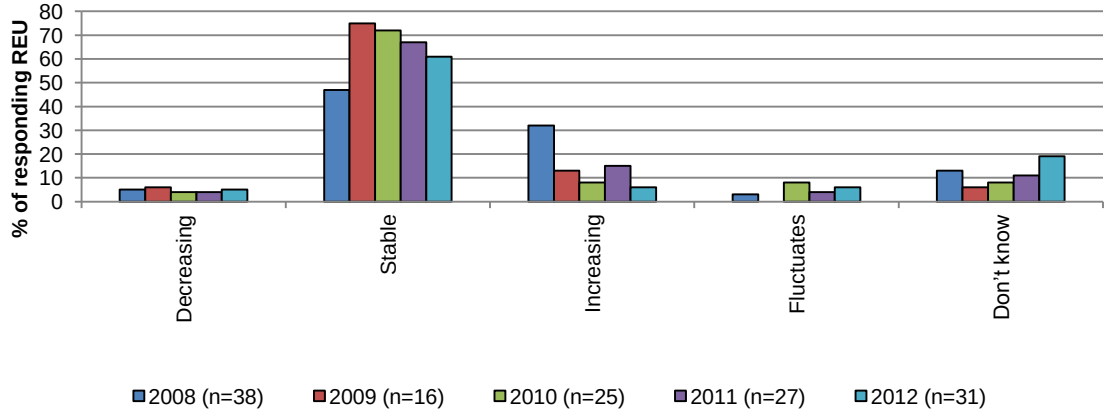
The median reported price of cocaine was $350 per gram in 2012, an increase of 17% from 2011 (Table 17). Nearly two-thirds (61%) of REU reported the price of cocaine was stable in the preceding six months (Figure 20).

Table 17: Price of cocaine purchased by REU, 2008-2012

Variable	2008 (N=100)	2009 (N=100)	2010 (N=100)	2011 (N=101)	2012 (N=100)
Median price per gram (range)	$300 ($200-$500) (n=36)	$300 ($180-$380) (n=16)	$300 ($80-$400) (n=18)	$320 ($200-$500) (n=23)	$350 ($250-$400) (n=27)

Source: REU interviews, 2008-2012

Figure 20: Recent changes in price of cocaine purchased by REU, 2008-2012

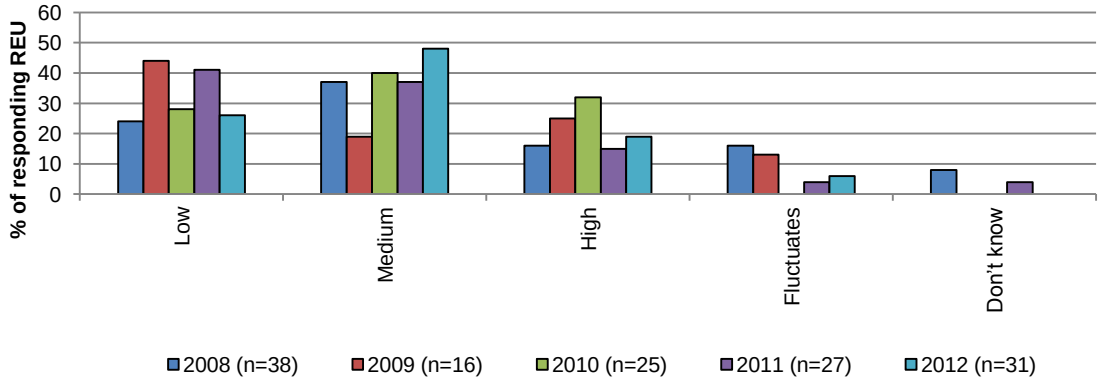


Source: REU interviews, 2008-2012

5.3.2 Purity

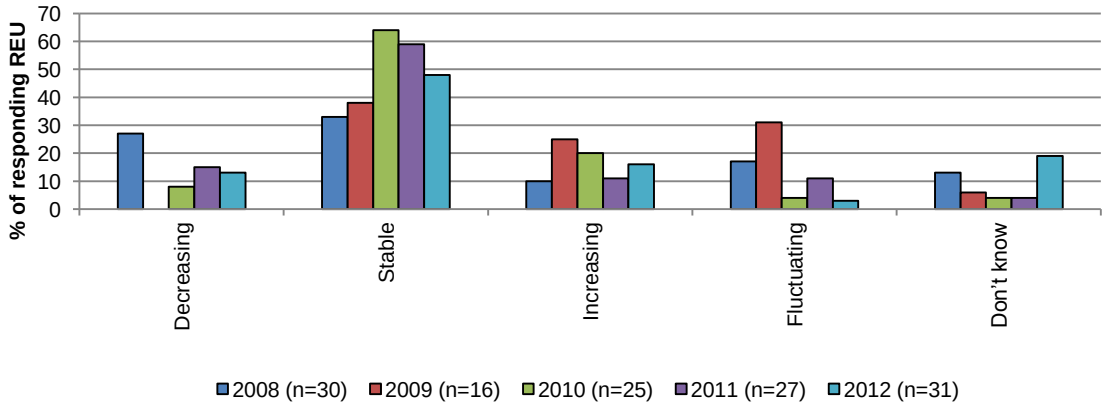
Of the 2012 REU sample who commented (n=31), about half (48%) perceived current cocaine purity to be medium compared to 37% in 2011 (Figure 21). About half (48%) of 2012 REU reported the purity of cocaine was stable in the preceding six months, while 16% reported the purity was increasing in 2012 compared to 11% in 2011 (Figure 22).

Figure 21: User reports of current purity of cocaine, 2008-2012



Source: REU interviews, 2008-2012

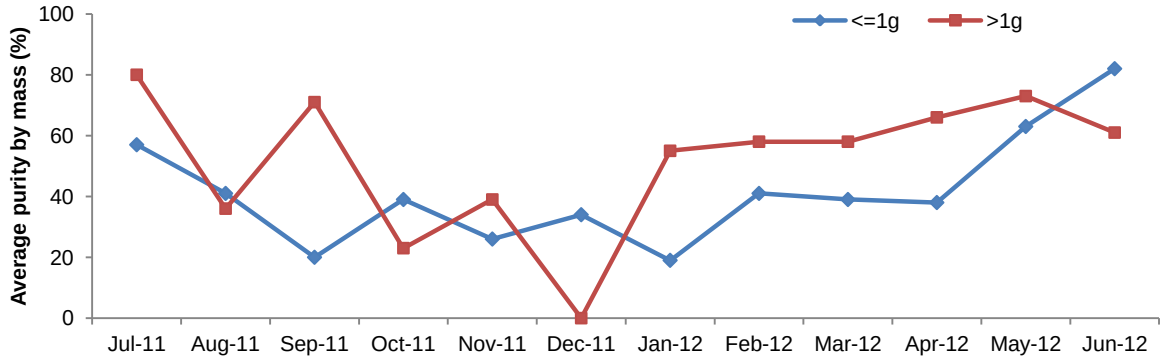
Figure 22: User reports of changes in cocaine purity in the past six months, 2008-2012



Source: REU interviews, 2008-2012

The mean purity of all cocaine seizures analysed by the Victoria Police Forensic Services Department during the 2011/2012 financial year was 49% (range=19%-82%), higher than in the previous financial year (35% in 2010/2011) (Figure 23).

Figure 23: Average purity of cocaine seizures by Victorian law enforcement, July 2011-June 2012

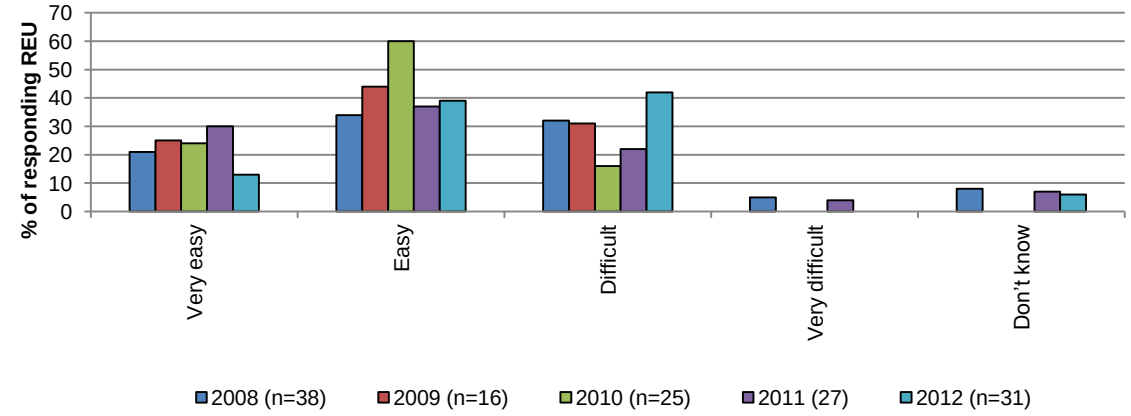


Source: Victoria Police Forensic Services Department

5.3.3 Availability

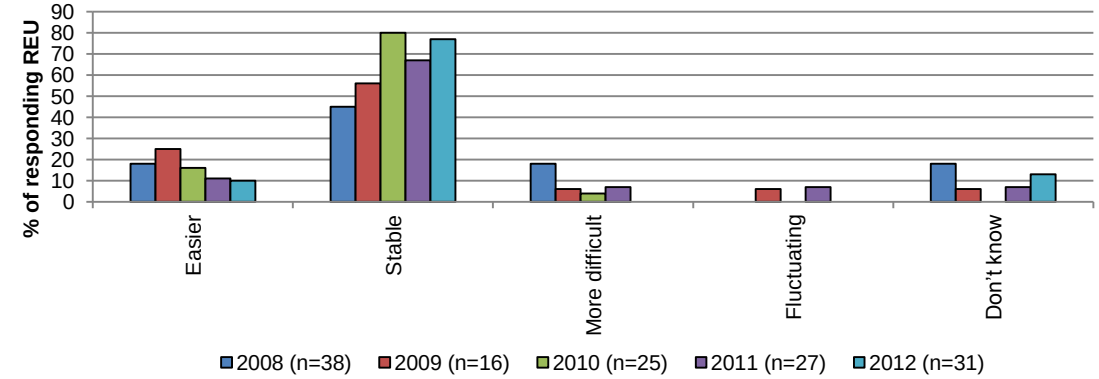
In 2012, the percentage of REU reporting cocaine to be difficult to obtain was almost double that in 2011 (42% vs. 22%). However, this difference was not statistically significant, reflecting the small numbers able to comment (31 in 2012). Over the six months preceding the interview, cocaine availability was regarded as stable by the majority of REU who commented in 2012 (77%), consistent with past years (Figure 25).

Figure 24: Current availability of cocaine, 2008-2012



Source: REU interviews, 2008-2012

Figure 25: Changes in cocaine availability in the preceding six months, 2008-2012



Source: REU interviews, 2008-2012

As in previous years, REU who commented on the last person they purchased cocaine from in 2012 (n=31) reported obtaining it mainly from friends (55%) or a known dealer (16%). The most recent locations of a purchase of cocaine were friends' homes (29%), agreed public locations (13%), dealers' homes (10%), and nightclubs (10%).

5.4 Ketamine

5.4.1 Price

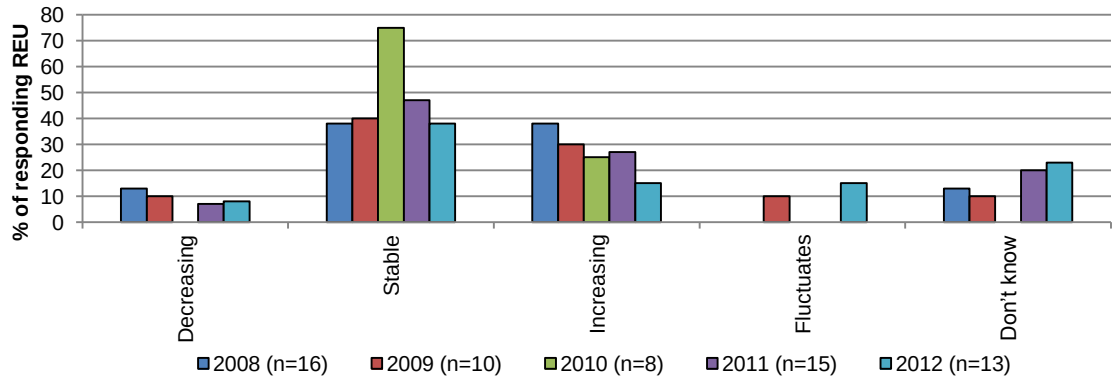
Thirteen REU were able to answer questions relating to ketamine in 2012 (Table 18). The median reported price was unchanged from 2011 at $200. REU most commonly reported the price was stable (39%) in 2012.

Table 18: Price of ketamine purchased by REU, 2008-2012

Ketamine	2008 (N=100)	2009 (N=100)	2010 (N=100)	2011 (N=101)	2012 (N=100)
Median price ($)					
Point (range)	–	$25 (n=1)	–	–	--
Gram (range)	$200 ($175-$300) (n=12)	$200 ($170-$25) (n=9)	$220 (n=2)	$200 ($80-$400) (n=15)	$200 ($150-$300) (n=12)

Source: REU interviews, 2008-2012

Figure 26: Recent changes in price of ketamine purchased by REU, 2008-2012

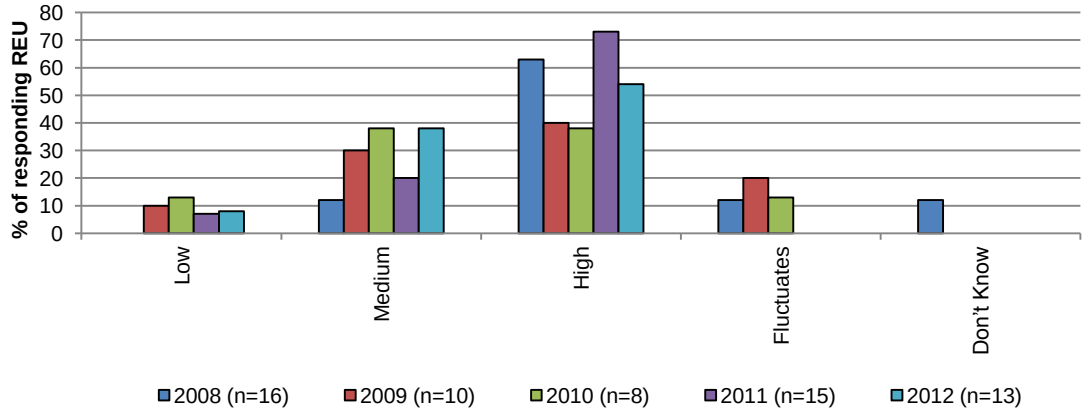


Source: REU interviews, 2008-2012

5.4.2 Purity

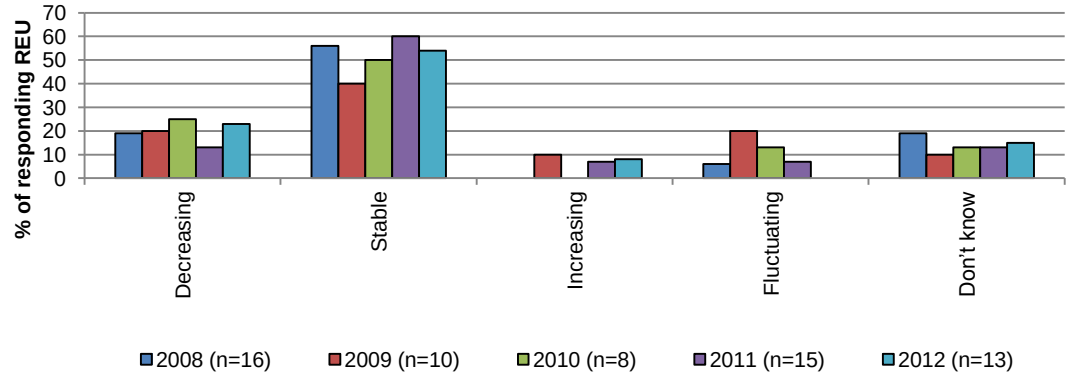
In 2012, 54% of surveyed ketamine users (n=7) reported the purity of ketamine to be high compared to 73% in 2011 (n=11) (Figure 27); the same percentage indicated that purity was stable in the preceding six months (Figure 28).

Figure 27: Current purity of ketamine, 2008-2012



Source: REU interviews, 2008-2012

Figure 28: Recent change in ketamine purity, 2008-2012

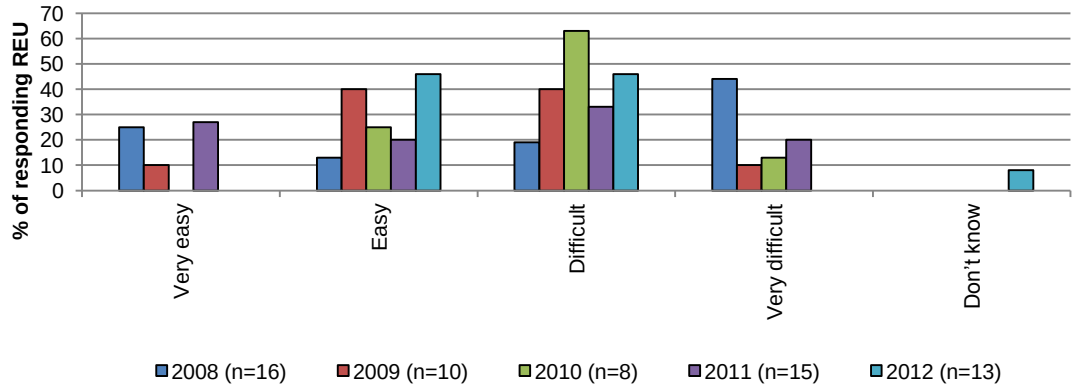


Source: REU interviews, 2008-2012

5.4.3 Availability

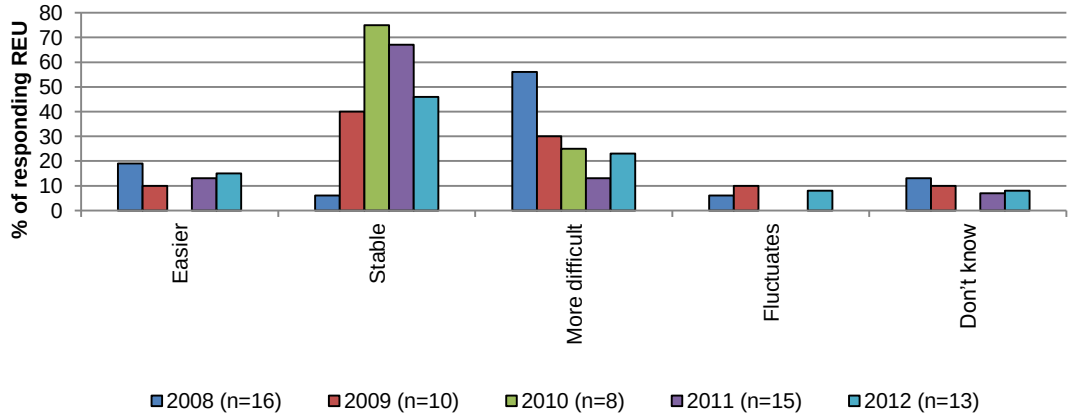
Of the REU who were able to comment in 2012 (n=13), approximately half reported that access to ketamine was easy and half said it was difficult to obtain (Figure 29). About half (46%) of REU reported that availability of ketamine in the previous six months had been stable (Figure 30).

Figure 29: Current ketamine availability, 2008-2012



Source: REU interviews, 2008-2012

Figure 30: Changes in availability of ketamine over the past six months, 2008-2012



Source: REU interviews, 2008-2012

5.5 GHB

5.5.1 Price

Very few participants (n=8) from the 2012 sample were able to comment on the current price of GHB, the median of their reported prices was $3 per ml (Table 19).

Table 19: Price of GHB purchased by REU, 2008-2012

GHB	2008 (N=100)	2009 (N=100)	2010 (N=100)	2011 (N=101)	2012 (N=100)
Median price ($) ml (range)	$4.25 ($3-$10) (n=6)	$4 (1.40-$7) (n=5)	$4.25 ($3-$5) (n=4)	$3 ($0.35-$3) (n=3)	$3 ($3-$4) (n=7)
3 ml (range)	–	–	–	–	--
20 ml (range)	–	–	$70 (n=1)	–	–
Vial 100 ml (range)	–	–	–	–	–

Source: REU interviews, 2008-2012

5.5.2 Purity

Too few REU were able to comment.

5.5.3 Availability

Too few REU were able to comment.

5.6 LSD

5.6.1 Price

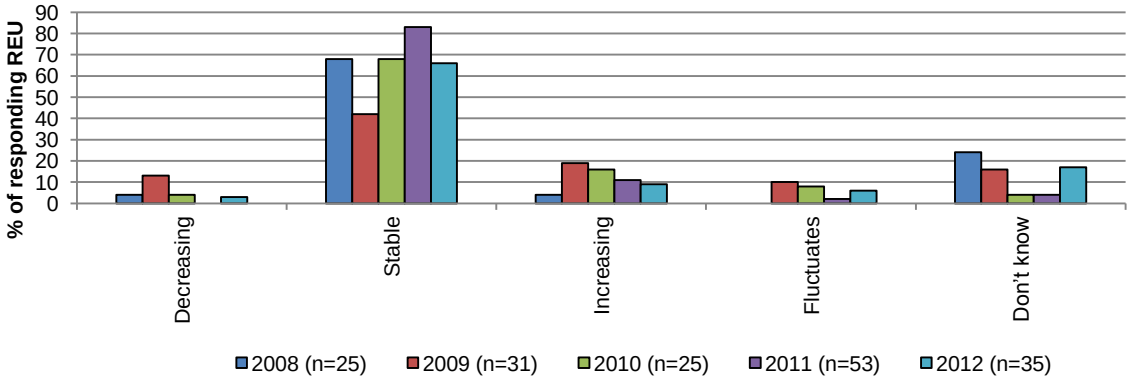
The median reported price of LSD was $15 per tab in 2012, unchanged from 2011 (Table 20). Two-thirds of REU reported the price of LSD was stable in the preceding six months.

Table 20: Prices of LSD purchased by REU, 2008-2012

LSD	2008 (n=19)	2009 (n=28)	2010 (n=17)	2011 (n=51)	2012 (n=33)
Median price ($) Tab (range)	$15 ($10-$40)	$17 ($10-$35)	$10 ($10-$25)	$15 ($10-$30)	$15 ($10-$50)

Source: REU interviews, 2008-2012

Figure 31: Recent changes in price of LSD purchased by REU, 2008-2012

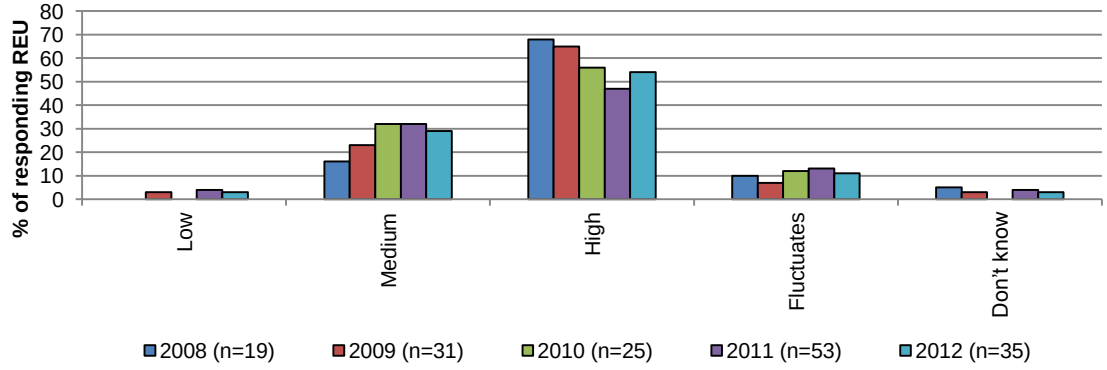


Source: REU interviews, 2008-2012

5.6.2 Purity

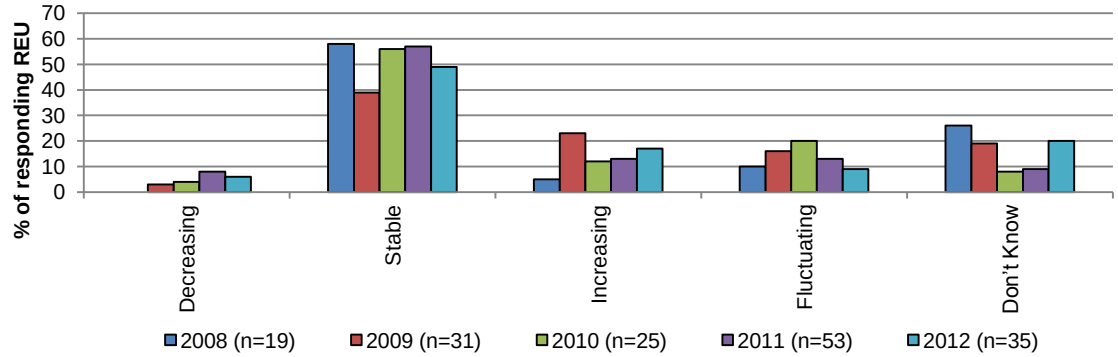
Consistent with previous years, recent LSD users reported the purity of LSD as medium to high (83%) in 2012 (Figure 32) and as being stable (49%) over the six months preceding interview (Figure 33).

Figure 32: REU reports of purity of LSD in the preceding six months, 2008-2012



Source: REU interviews, 2008-2012

Figure 33: REU reports of change in purity of LSD in the preceding six months, 2008-2012

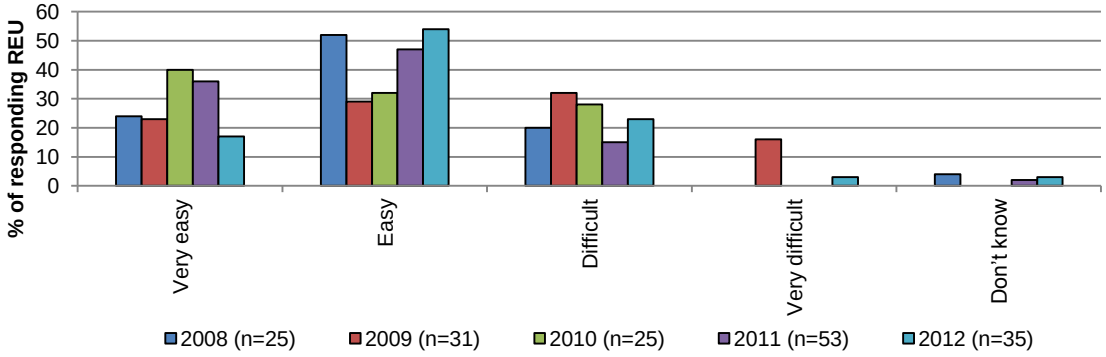


Source: REU interviews, 2008-2012

5.6.3 Availability

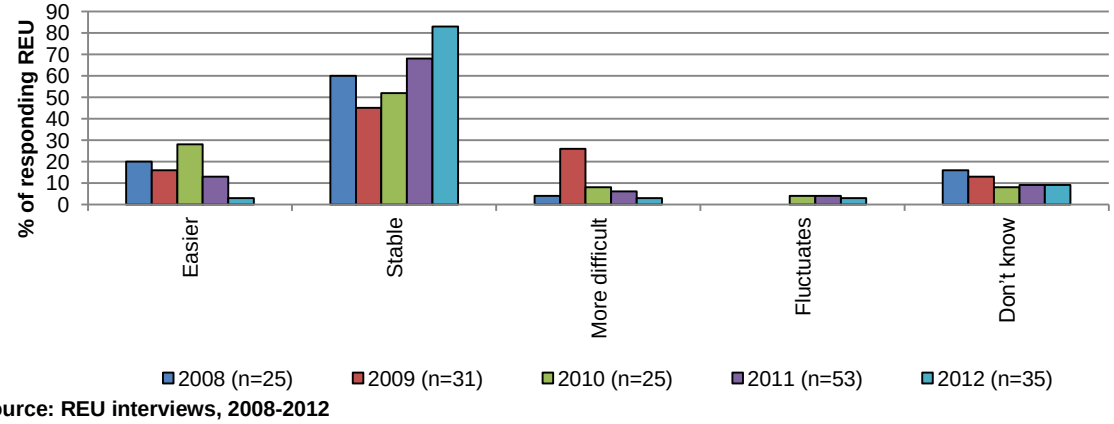
In 2012, 71% of REU who commented reported LSD was very easy or easy to source compared to 83% in 2011 (Figure 34). LSD availability in the preceding six months was described as stable by most REU (83%) (Figure 35).

Figure 34: Current LSD availability, 2008-2012



Source: REU interviews, 2008-2012

Figure 35: Changes in availability of LSD, 2008-2012



Source: REU interviews, 2008-2012

The last person from whom 2012 REU purchased LSD was a friend (60%) or known dealer (23%). The most common location for obtaining their last purchase of LSD was at a live music event (26%), a friend's home (20%), or their own home (14%).

5.7 Cannabis

5.7.1 Price

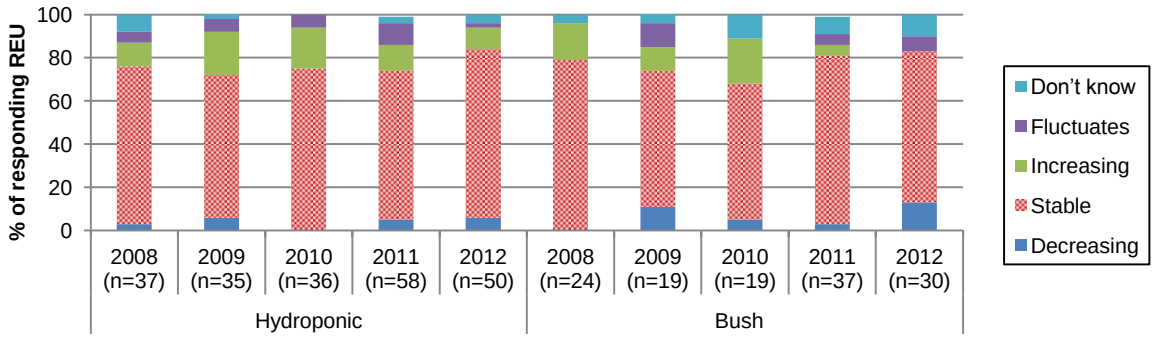
REU were asked questions about the price, potency and availability of both hydroponic cannabis and bush/naturally-grown cannabis. Prices were lower for hydroponic cannabis per gram in 2012 than in 2011 ($15 vs. $18.75), while all other prices remained similar to previous years for hydroponic and bush cannabis (Table 21). Prices were reported as being stable in the preceding six months by 78% of recent hydroponic cannabis users (n=50) and 70% of recent bush cannabis users (n=30) (Figure 36).

Table 21: Price of cannabis purchased by REU, 2008-2012

Cannabis	2008 (N=100)	2009 (N=100)	2010 (N=100)	2011 (N=101)	2012 (N=100)
Median price ($)					
Hydroponic					
gram	$20 ($10-$25) (n=34)	$20 ($15-$20) (n=23)	$20 ($10-$30) (n=20)	$18.75 ($10-$30) (n=44)	$15 ($10-$25) (n=33)
ounce	$250 ($200-$300) (n=13)	$250 ($200-$280) (n=17)	$250 ($200-$300) (n=10)	$250 ($70-$320) (n=38)	$250 ($150-$320) (n=23)
Bush					
gram	$20 ($10-$30) (n=15)	$10 ($10-$20) (n=8)	$16 ($15-$25) (n=8)	$15 ($10-$70) (n=30)	$15 ($5-$65) (n=22)
ounce	$220 ($80-$380) (n=17)	$200 ($150-$250) (n=5)	$270 ($65-$300) (n=5)	$245 ($120-$300) (n=22)	$240 ($100-$300) (n=17)

Source: REU interviews, 2008-2012

Figure 36: Recent changes in price of hydroponic and bush cannabis purchased by REU, 2008-2012

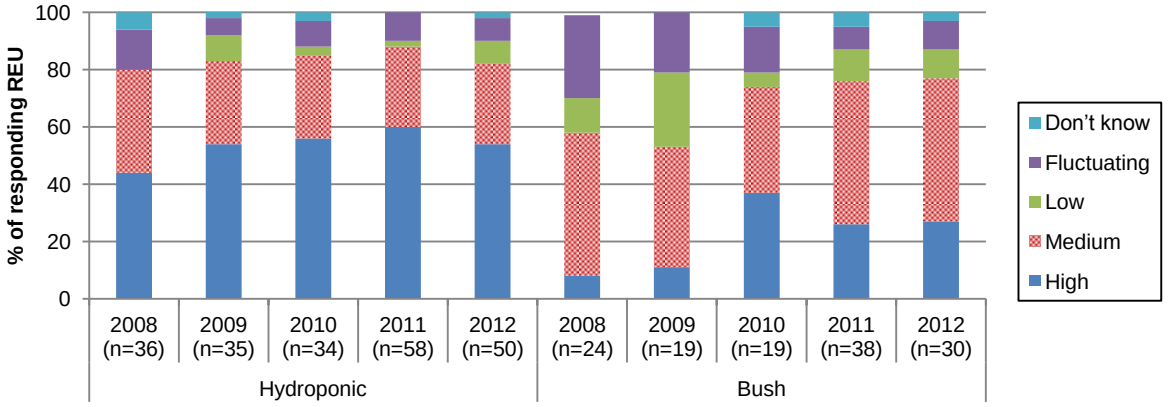


Source: REU interviews, 2008-2012

5.7.2 Potency

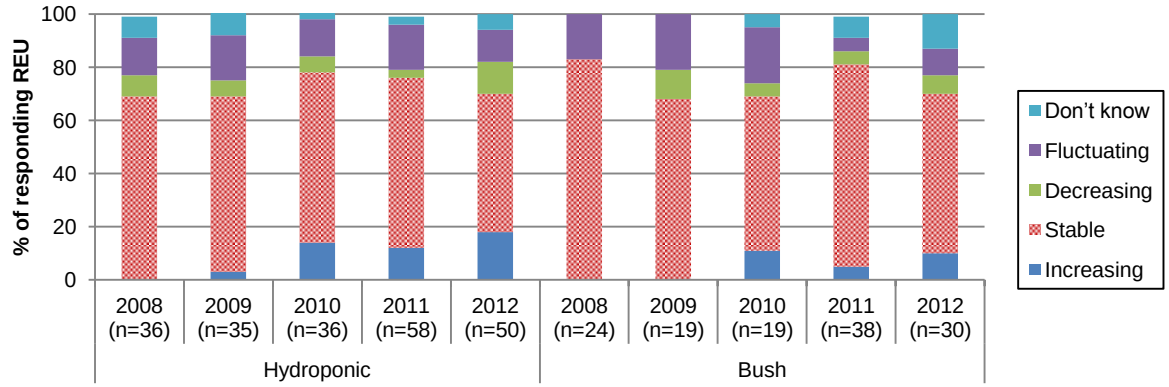
In 2012, the potency of cannabis was typically reported as being medium to high for hydroponic cannabis (82%) and bush cannabis (77%), consistent with past years (Figure 37). About half (52%) of REU reported hydroponic cannabis potency to be stable in the preceding six months, though more REU reported potency had increased in 2012 than in 2011 (18% vs. 12% respectively). This trend was also observed in bush cannabis, with 60% reporting potency to be stable, while 10% reported potency to have increased in 2012 compared to 5% in 2011 (Figure 38).

Figure 37: Reports of current hydroponic and bush cannabis potency by REU, 2008-2012



Source: REU interviews, 2008-2012

Figure 38: Reports of changes in hydroponic and bush cannabis potency, 2008-2012

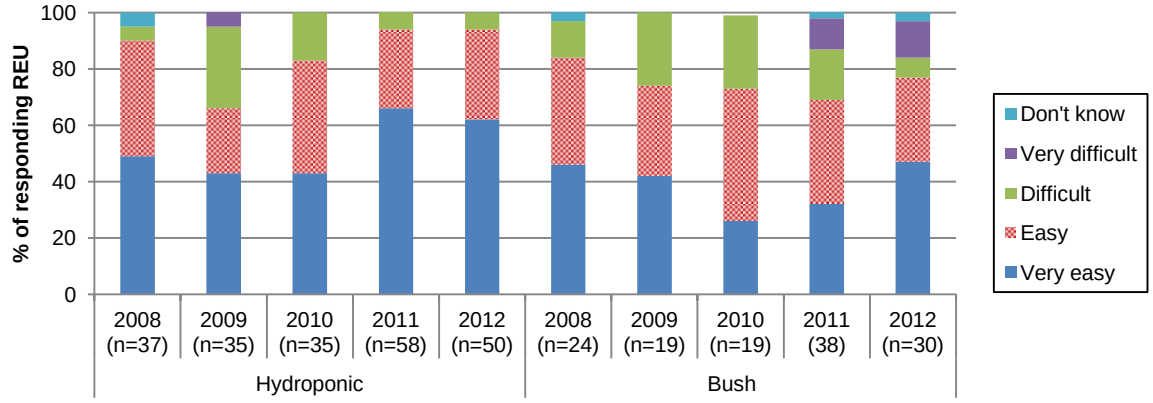


Source: REU interviews, 2008-2012

5.7.3 Availability

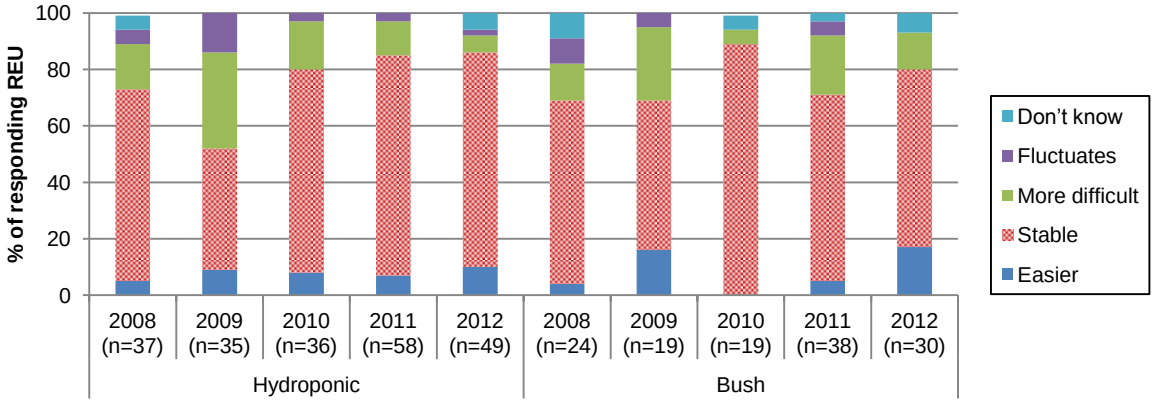
In 2012, of the REU who were able to respond (n=50 for hydroponic and n=30 for bush), 94% reported hydroponic cannabis was easy or very easy to obtain, and 77% reported bush cannabis was easy or very easy to obtain (Figure 39). Of those who commented, 76% reported hydroponic cannabis availability in the previous six months as stable and 63% reported bush cannabis availability as stable (Figure 40).

Figure 39: Current availability of hydroponic and bush cannabis, 2008-2012



Source: REU interviews, 2008-2012

Figure 40: Recent changes in availability of hydroponic and bush cannabis, 2008-2012



Source: REU interviews, 2008-2012

Consistent with past years, most REU reported that the last person they purchased cannabis from was a friend (42% for hydroponic and 63% for bush cannabis) or known dealer (36% for hydroponic and 20% for bush cannabis). Most of those who commented on the last location where they purchased cannabis reported obtaining it from friends' homes (42% for hydroponic and 50% for bush cannabis).

6 HEALTH-RELATED TRENDS ASSOCIATED WITH ERD USE

Summary

- Eighteen REU reported overdosing on a stimulant drug in the past 12 months, mostly commonly on ecstasy (61%) and crystal meth (22%).
- Eighteen REU reported overdosing on a depressant drug in the past 12 months, with 61% of depressant overdoses attributed to alcohol.
- Seventeen per cent of 2012 REU reported they had accessed a health or medical service in relation to their ERD use in the preceding six months.
- In 2011, a specialist telephone service in Victoria (DirectLine) received calls identifying ecstasy (0.5%), amphetamine and/or other stimulants (12%), cocaine (0.8%) and cannabis (10.9%) as drugs of concern.
- The number of amphetamine-related ambulance attendances increased from 533 in 2010 to 768 in 2011.
- The number of ambulance attendances where GHB use was recorded decreased from 390 in 2010 to 366 in 2011.
- Between the 2007/2008 and 2009/2010 financial years, the number of hospital admissions related to amphetamines, cocaine and cannabis have been stable.
- Of REU who reported any recent mental health problem in 2012 (n=32), the main issue experienced was anxiety (56%).

6.1 Overdose and drug-related fatalities

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

In 2012, 29 participants reported that they had ever overdosed on any stimulant drug(s) on a median of two occasions (range=1-15). Of those who had ever overdosed on stimulants, 18 REU reported having done so in the last 12 months in 2012 (the same as in 2011). REU cited ecstasy (61%) and crystal meth (22%) as the drugs associated with most of the overdoses. Prevalence of recent overdose of ecstasy in 2012 was higher than in 2011 (61% vs. 29%), though this difference did not reach statistical significance. Of the REU overdoses in the last 12 months (n=18), 39% occurred at a friend's home and 33% at a nightclub. The most commonly reported symptoms were nausea, vomiting, extreme anxiety and visual hallucinations (each by 17% of REU). Twelve participants reported receiving treatment during or as a result of the overdose; nine stated they were monitored or watched by a friend; and three received formal medical monitoring or treatment.

Twenty-six REU reported they had ever overdosed on a depressant drug, a median of three times (range=1-100). Of those who overdosed on depressants (including alcohol), 18 REU reported having done so in the last 12 months. Overdose was attributed to alcohol by 61% of REU who overdosed in the last 12 months. The main symptoms experienced were losing consciousness (56%) and vomiting (17%). The most common locations of REU's most recent overdoses were home (28%), friends' homes (22%), and public places (17%). Seven REU reported they received treatment; six stated they were monitored or watched by a friend; and one received formal medical treatment.

6.2 Help-seeking behaviour

Seventeen per cent of 2012 REU reported they had accessed a health or medical service in relation to their ERD use in the preceding six months. The most common reasons for REU accessing these services were related to overdose (n=5) and cutting down drug use (n=4), and they most commonly sought care from a general practitioner (n=4) or psychologist (n=4). The main drugs of concern reported by participants accessing services were alcohol (n=4), ecstasy (n=3), crystal meth (n=3) and heroin (n=3).

6.3 Drug treatment

6.3.1 Alcohol and Drug Information System (ADIS)

Data on people seeking treatment from specialist alcohol and other drug agencies in Victoria are collected via the ADIS. During the 2011/2012 financial year, 51,742 courses of treatment were delivered to 30,428 clients[8] in Victorian specialist alcohol and other drug services. Of these, approximately 10% of the total courses of treatment were delivered to approximately 11% of clients for amphetamine problems, making amphetamines the fourth most prevalent main presenting drug problem after alcohol (41%), cannabis (22%), and heroin (11%). Only 0.4% of the courses of treatment were delivered to 0.7% of clients for ecstasy (ADIS Database, Victorian Department of Health, unpublished data).

6.3.2 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

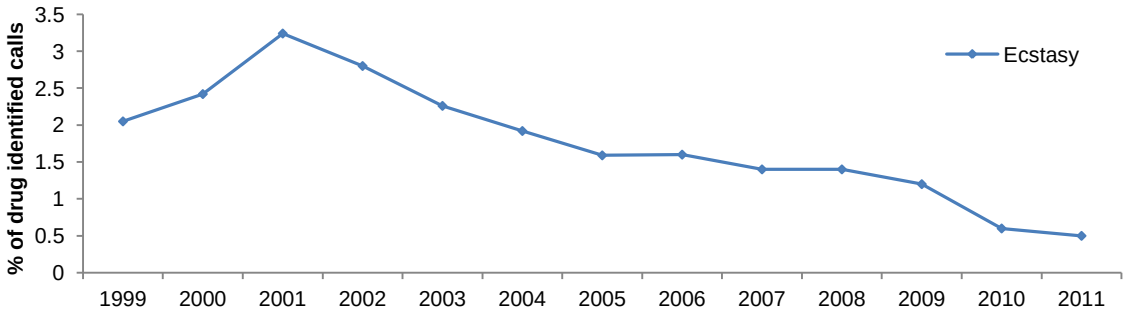
[8] Clients in specialist alcohol and drug services include both drug users and non-users. Non-users may include partners, family or friends.

information about caller drugs of concern, calls from drug users and calls about drug users. This report presents DirectLine data for the period 1999-2011.

Ecstasy

During 2011, DirectLine received 103 calls in which ecstasy was identified as a drug of concern. This represents 0.5% of all drug-identified calls to DirectLine in that year (Turning Point Alcohol & Drug Centre, unpublished data). The percentage of drug-related calls in which ecstasy was identified as the drug of concern steadily declined from 2001 to 2005, plateaued, and then continued to decline from 2009 onwards (Figure 41).

Figure 41: DirectLine calls with ecstasy identified as drug of concern, 1999-2011

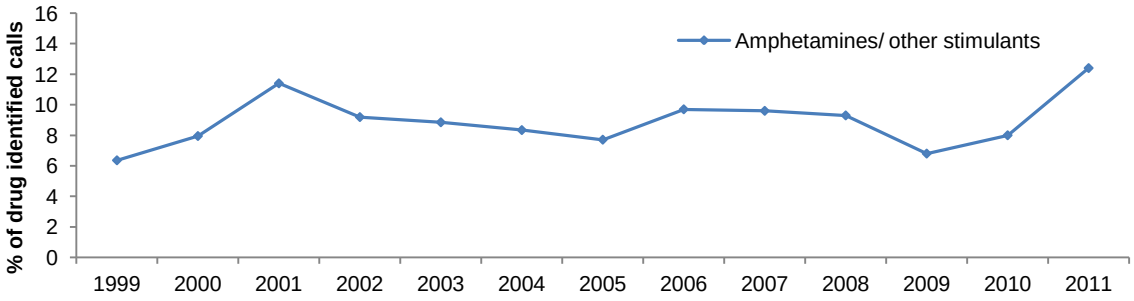


Source: DirectLine, Turning Point Alcohol & Drug Centre (unpublished data)

Methamphetamine

During 2011, DirectLine received 2,580 calls in which amphetamines and/or other stimulants (includes amphetamines, ecstasy, cocaine and other stimulants) were identified as drugs of concern. This represented approximately 12% of all drug-identified calls to DirectLine in that year (Turning Point Alcohol & Drug Centre, unpublished data), a higher figure than in previous years (Figure 42).

Figure 42: DirectLine calls where drug of concern identified as amphetamines and/or other stimulants, 1999-2011



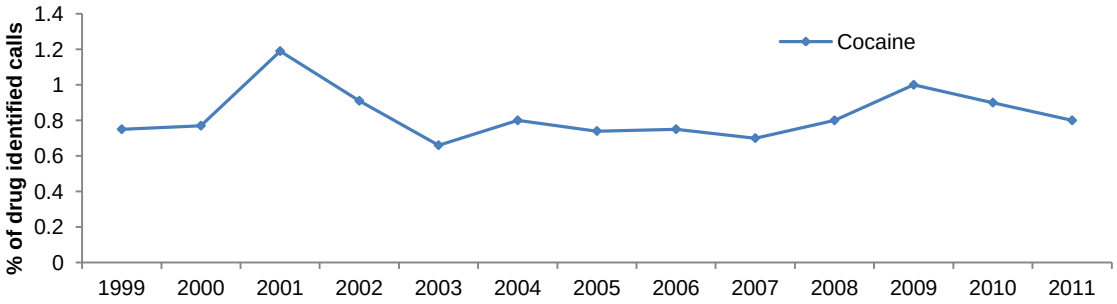
Source: DirectLine, Turning Point Alcohol & Drug Centre (unpublished data)

Cocaine

During 2011, DirectLine received 162 calls in which cocaine was identified as a drug of concern, which was 0.8% of all calls made to DirectLine during that time in which a drug of concern was cited (Turning Point Alcohol & Drug Centre, unpublished data). The percentage

of drug-related calls where cocaine was identified has remained very low (≤1%) during recent years (Figure 43).

Figure 43: DirectLine calls with cocaine identified as drug of concern, 1999-2011

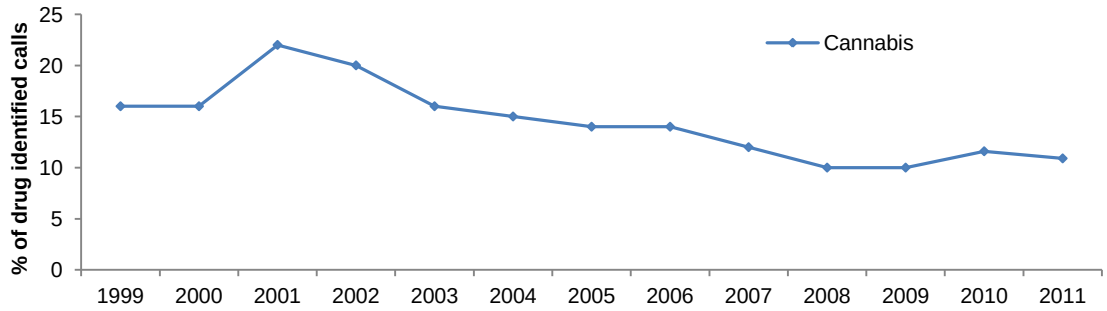


Source: DirectLine, Turning Point Alcohol & Drug Centre (unpublished data)

Cannabis

During 2011, DirectLine received 2,283 calls in which cannabis was identified as a drug of concern – approximately 10.9% of all drug-identified calls to DirectLine during that year (Turning Point Alcohol & Drug Centre, unpublished data). This percentage represents a slight decline from that reported in 2010 (11.6%) (Figure 44).

Figure 44: DirectLine calls with cannabis identified as drug of concern, 1999-2011



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

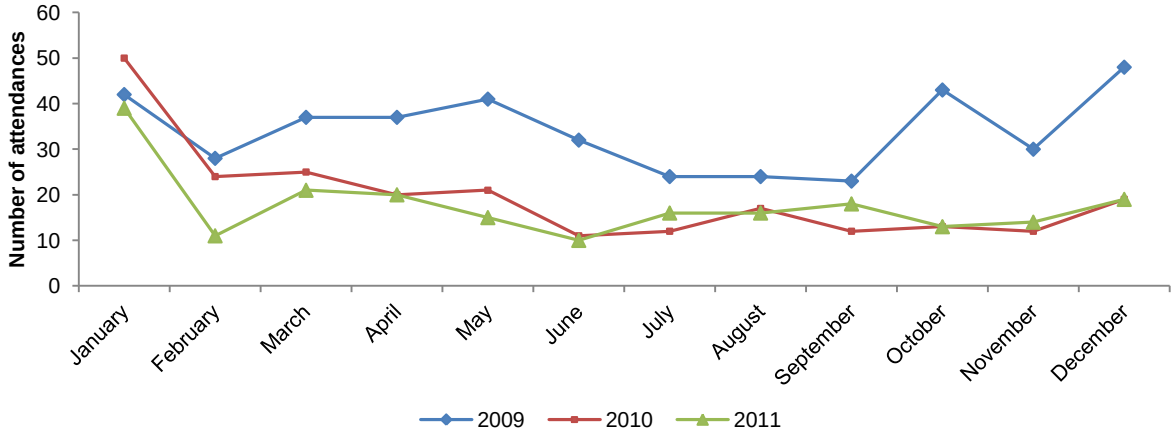
6.3.3 Ambulance attendances at non-fatal drug-related events

Turning Point Alcohol & Drug Centre manages an electronic drug-related ambulance attendance database containing information from Ambulance Victoria records (Dietze, Cvetkkovski, Rumbold, & Miller, 2000). Data for the period between January 2008 and December 2011 are presented in this report.

Ecstasy

Ambulance attendances where ecstasy use was recorded ranged between 10 and 48 per month during 2009-2011. The total number of attendances at which ecstasy was recorded declined by almost half between 2009 and 2010 (409 vs. 236) and continued to decline to 212 attendances in 2011 (Figure 45) (Turning Point Alcohol & Drug Centre, unpublished data).

Figure 45: Monthly ambulance attendances at which ecstasy was mentioned in Melbourne, January 2009-December 2011

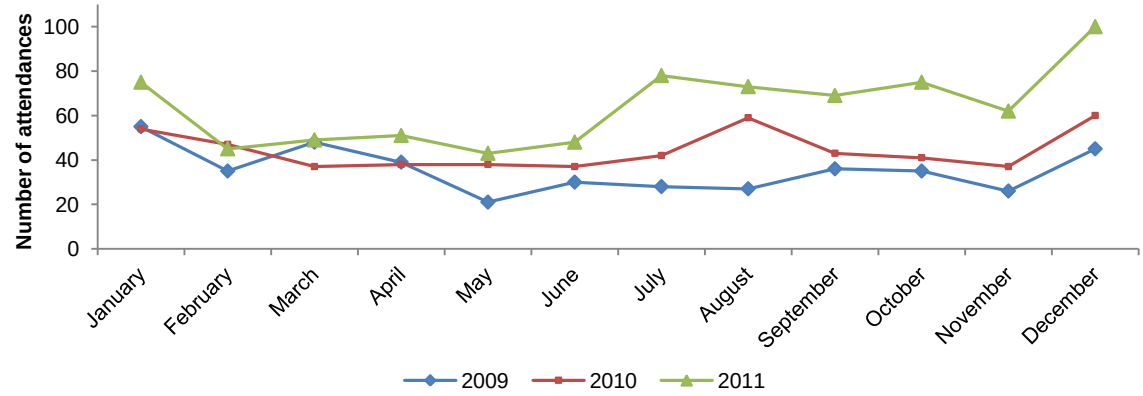


Source: Ambulance Victoria and Turning Point Alcohol & Drug Centre

Amphetamines

Ambulance attendances at which amphetamine use was recorded ranged between 21 and 100 per month between January 2009 and December 2011 (Figure 46). Attendances where amphetamines were recorded have increased since 2009 (425 attendances), with 533 attendances occurring in 2010 and 768 attendances in 2011 (Turning Point Alcohol & Drug Centre, unpublished data).

Figure 46: Monthly ambulance attendances at which amphetamines were mentioned in Melbourne, January 2009-December 2011



Source: Ambulance Victoria and Turning Point Alcohol & Drug Centre

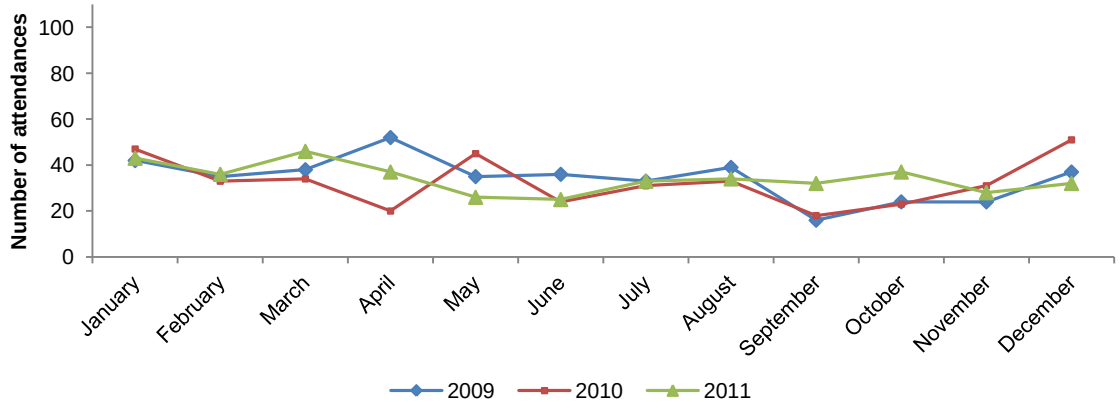
Cocaine

In 2011 cocaine use was estimated to be mentioned at approximately 82 ambulance attendances in Melbourne, slightly higher than the figure reported in 2010 (n<70) (Turning Point Alcohol & Drug Centre, unpublished data).

GHB

Ambulance attendances where GHB use was recorded ranged between seven and 52 per month between January 2008 and December 2011. In 2011, the number of ambulance attendances where GHB use was recorded decreased from 390 in 2010 to 366 (Figure 47) (Turning Point Alcohol & Drug Centre, unpublished data).

Figure 47: Monthly totals of ambulance attendance where GHB was mentioned in Melbourne, January 2009-December 2011



Source: Ambulance Victoria and Turning Point Alcohol & Drug Centre

6.4 Other self-reported problems associated with ERD use

Since 2007, participants have been asked to report if their drug use has 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 are also asked to attribute such problems to the use of particular drugs.

Twenty-two per cent of 2012 REU reported that their drug use caused repeated problems with their social life (family, friends, work/school) and the main drugs to which these problems were attributed were alcohol (23%), cannabis (18%) and crystal meth (18%). Three REU reported having recurrent drug-related legal problems and these were attributed to alcohol (n=2) and crystal meth (n=1). Twenty-seven per cent of REU reported that they had recurrently found themselves in situations in which they were under the influence of drugs and hurt themselves or others or put themselves or others at risk. The drugs perceived to be associated with these risky situations were mainly alcohol (59%), ecstasy (11%) and crystal meth (11%). Almost half (46%) of REU reported recurrent interference with responsibilities at home, work or school due to their drug use and attributed this mainly to alcohol (31%), cannabis (22%) and ecstasy (20%).

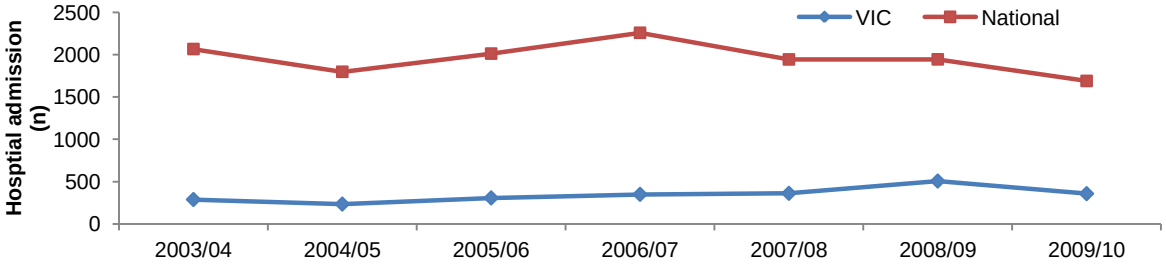
6.5 Hospital admissions

The NHMD is compiled by the AIHW. It is a collection of electronic records for admitted patients in public and private hospitals in Australia. It reports the “principal diagnosis” (the diagnosis established after study to be chiefly responsible for occasioning the patient’s episode of care in hospital) for each admission. This report presents drug-related (amphetamine, cocaine and cannabis) hospital admissions for Victoria and Australia, 2003/2004 to 2009/2010 (Roxburgh, 2012).

6.5.1 Amphetamines

Amphetamine-related hospital admissions for Victoria and Australia (among persons aged 15-54 years) are presented in Figure 48. There were fewer amphetamine-related hospital admissions in Victoria in 2009/2010 compared to the 2008/2009 financial year but the amount was relatively similar to previous years.

Figure 48: Amphetamine-related hospital admissions, Victoria and national, 2003/2004-2009/2010

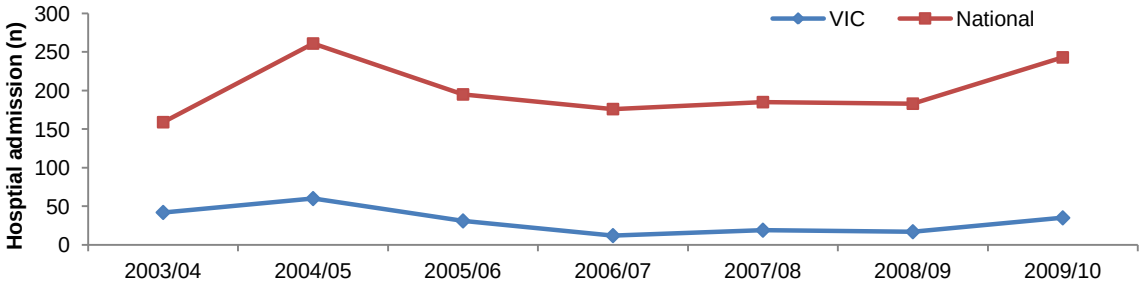


Source: Roxburgh 2012; AIHW

6.5.2 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 decreased between 2004/2005 and 2006/2007 then remained stable.

Figure 49: Cocaine-related hospital admissions, Victoria and national, 2003/2004-2009/2010

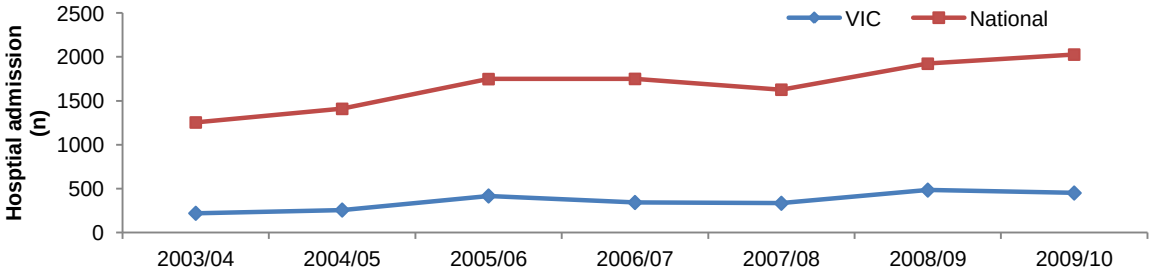


Source: Roxburgh, 2012; AIHW

6.5.3 Cannabis

Cannabis-related hospital admissions for Victoria and Australia (among persons aged 15-54 years) are presented in Figure 50. The figure indicates an increase in the number of cannabis-related hospital admissions in Victoria between 2003/2004 and 2005/2006. The numbers were then stable thereafter.

Figure 50: Cannabis-related hospital admissions, Victoria and national, 2003/2004-2009/2010



Source: Roxburgh, 2012; AIHW

6.6 Mental and physical health problems and psychological distress

6.6.1 Mental health problems and psychological distress (K10)

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

The mean K10 score of the 2012 REU sample was 18 (range=10-47). K10 scores ranging from 10 to 15 are classified as low or no distress, 16 to 21 as moderate distress, 22 to 29 as high distress, and 30 to 50 as very high distress. According to this classification, in 2012, 24% of participants were in the low range, 45% in the moderate range, 20% in the high range, and 10% in the very high range. Compared to the figure in the most recent NDSHS report (2010) for those who use ecstasy, a higher percentage of 2012 REU scored in the moderate to high distress range (65% in REU survey vs. 41% in 2010 NDSHS). Fifty-six per cent of the ecstasy users in the 2010 NDSHS were in the low range, a figure higher than that reported in the 2007 survey (50%) (Australian Institute of Health and Welfare, 2011).

6.6.2 Self-reported mental problems

In 2012, thirty-two REU reported they had experienced a mental health problem in the preceding six months, mostly anxiety (56%). Sixty-seven per cent of REU who experienced a mental problem reported attending a health professional to address it, higher than the figure reported in 2011 (57%). Seventy-one per cent (n=15) of REU who attended a health professional for their mental health problem were prescribed medication. The main medications prescribed were anti-depressants (n=11), benzodiazepines (n=7) and antipsychotics (n=3).

7 RISK BEHAVIOUR

Summary

- A significantly lower percentage of REU reported ever injecting any drug in 2012 than in 2011 (13% vs. 27% respectively).
- Significantly fewer REU reported having an HIV test in 2012 than in 2011 (41% vs. 62% respectively).
- A higher percentage of REU reported never having a sexual health check-up in 2012 than in 2011 (48% vs. 35% respectively).
- Sixty-nine per cent of REU reported recent penetrative sex with a casual partner in the past six months.
- Sixty-five REU reported having had sex with a casual partner while under the influence of drugs/alcohol in the past six months, most commonly alcohol (74%), followed by ecstasy (37%), cannabis (29%) and crystal meth (18%).
- Seventy per cent of 2012 REU reported having driven in the past 12 months; of these REU, 42% believed they had driven while over the legal limit of blood alcohol content (for their licence type), and 55% reported driving soon after consuming illicit drug(s).
- In 2012, 80% of REU scored eight or more on the AUDIT, which refers to levels at which alcohol intake may be considered hazardous.

7.1 Injecting-risk behaviour

7.1.1 Lifetime injectors

Thirteen per cent of the 2012 REU sample reported ever injecting any drug (Table 22), a significantly lower figure than in 2011 (27%). Among those who reported ever injecting, the median age for injecting for the first time was 20 years (range=16-27). Most REU who had ever injected reported the first drug they injected was heroin (46%) or methamphetamine powder (speed) (38%).

Table 22: Injecting behaviour among REU, 2008-2012

	2008 (N=100)	2009 (N=100)	2010 (N=100)	2011 (N=101)	2012 (N=100)
Ever injected (%)	15	18	14	27	13

Source: REU interviews, 2008-2012

7.1.2 Patterns of recent injecting drug use

Only seven REU reported having injected in the preceding six months in 2012. These participants reported injecting a median of 72 times (range=1-105) in the last six months, at their own home (n=4), at a friend's home (n=2), or at a public place (n=1), after sourcing needles mainly from a NSP (n=5), chemist (n=1) or hospital (n=1). One participant reported the sharing of needles with a casual sex partner. One participant reported sharing spoons, filters, a tourniquet, water and swabs after someone else had used these items. Small numbers of injectors preclude detailed interpretation of the figures in Tables 23 and 24, which should be viewed with caution.

Table 23: Recent injecting drug use patterns (recent injectors) among REU, 2011-2012

	% injected past 6 months		Median days injected last 6 months (range)*		% last drug injected	
	2011 (n=17)	2012 (n=7)	2011 (n= 17)	2012 (n=7)	2011 (n= 16)	2012 (n=7)
Crystal	65	57	6 (1-96)	22.5 (6-80)	6	14
Speed	71	83	24 (2-115)	50 (1-72)	31	29
Base	18	33	2 (1-7)	7.5 (3-12)	-	-
Ecstasy (pills)	18	42	5 (2-10)	1 (1-1)	-	14^
Ecstasy**	6	29	-	1 (1-1)	-	
Heroin	76	43	12 (1-180)	90 (1-105)	56	29
Ketamine	6	20	24 (n=1)	1 (n=1)	6	-
Other opiates	18	14	7 (5-10)	10 (n=1)	-	-
Cocaine	6	33	3 (n=1)	-	-	14
Buprenor-phine	12	0	1.5 (1-2)	2.5 (2-3)	-	-

Source: REU interviews, 2011-2012

* Of those who had injected in the preceding six months
** Powder or capsule
^ Any ecstasy

Table 24: Context and patterns of recent injection among REU, 2008-2012

	2008 recent injectors (n=9)	2009 recent injectors (n=7)	2010 recent injectors (n=7)	2011 recent injectors (n=17)	2012 recent injectors **(n=7)**
Locales where injected*					
Own home (%)	86	71	86	71	57
Friend's home (%)	14	29	14	18	29
Car (%)	43	-	-	12	-
Dealer's home (%)	14	-	-	-	-
Street, park (%)	14	-	-	-	-
Public toilet (%)	14	-	-	-	-
Venue toilet (%)	14	-	-	-	-
Sex venue (%)	0	-	-	-	-
Other (%)	-	-	-	-	14
Injected (only) under the influence (%)	14	14	14	13	14
Injected (only) while coming down (%)	29	14	29	13	-
Injected (both) while under the influence and coming down (%)	43	29	29	38	57
Median times injected any drug under the influence and/or coming down last 6 months (range)	96 (3-1080)**	6 (1-36)	5 (2-180)	12 (2-188)	10 (1-90)

Source: REU interviews, 2008-2012
* Could nominate more than one response
** One participant injected daily, six times a day

7.2 Blood-borne viral infections (BBVI)

Over half (57%) of 2012 REU reported that they had completed the vaccination schedule for the hepatitis B virus (HBV) while 26% reported they had never been vaccinated and 2% reported they did not finish the vaccination schedule, consistent with past reports. Reasons for seeking HBV vaccination included being vaccinated as a child (54%) and going overseas (29%).

Participants were asked if they had been tested for the hepatitis C virus (HCV). Forty-three per cent of 2012 REU reported that they had ever been tested for HCV; 63% of these tests occurred in the preceding 12 months and no one reported a positive HCV result.

Participants were asked if they had been tested for the human immunodeficiency virus (HIV). Forty-one per cent of 2012 REU had ever been tested for HIV, significantly lower than the 62% recorded in 2011 ($p<0.01$). Of those who have been tested for HIV, 73% had tested in the last year and no one reported a positive HIV result.

Forty-nine per cent of the 2012 REU sample reported ever having a sexual health check-up (such as a swab, urine, or other blood test), and 73% of these tests were in the past year. A greater percentage of REU reported never having a sexual health check-up in 2012 than in 2011 (48% vs. 35% respectively). The majority (90%) reported that they had never been diagnosed with a sexually transmitted infection (STI).

Table 25: BBVI and testing among REU, 2011-2012

	2011 N=101	2012 N=100
Vaccinated for HBV (%)	n=99	n=100
No	23	26
Yes, didn't complete	4	2
Yes, completed	56	57
Don't know	17	15
Main reason for HBV vaccination (%)*		
At risk (IDU)	7	2
At risk (sexual)	2	3
Going overseas	32	28
Vaccinated as a child	54	54
Work	0	5
Don't know/can't remember	0	0
Other	6	7
Tested for HCV (%)	n=100	n=100
No	36	53
Yes, in last year	39	27
Yes, > year ago	12	16
Don't know/didn't get result	13	4
HCV positive (%)**	12	0
Tested for HIV (%)	n=100	n=100
No	32	56
Yes, in last year	47	30
Yes, > year ago	15	11
Don't know/didn't get result	6	3
HIV positive (%)[#]	0	0
Other sexual health checkups (%)	n=100	n=99
No	35	48
Yes, in last year	49	36
Yes, > year ago	15	13
Don't know/didn't get result	1	2
STI positive (%)	n=98	n=99
	21	10
STI diagnosis (%)[##]		
Gonorrhoea	0	11
Chlamydia	76	78
Syphilis	0	0
HPV (genital warts)	19	0
Other	5	11

Source: REU interviews 2011-2012
* Among those who had been vaccinated for HBV
** Among those tested for HCV
[#] Among those tested for HIV
[##] Among those who tested positive for STI in the last year

7.3 Sexual risk behaviour

7.3.1 Recent sexual activity

In 2012, participants were asked questions about their sexual risk behaviour, focusing on penetrative sex with casual sex partners (defined as the penetration by the penis/fist of vagina/anus).

Sixty-nine per cent of participants reported recent penetrative sex with a casual partner in the past six months. Of those who reported recent penetrative sex with a casual partner, 57% reported using a condom the last time they had sex when sober (Table 26).

Table 26: Prevalence of sexual activity and number of sexual partners in the preceding six months, 2008-2012

	2008[#] (N=99)	2009 (N=100)	2010 (N=100)	2011 (N=101)	2012 (N=100)
Sex with a regular partner	-	n=82	n=69	-	-
Always used a protective barrier (not under influence of alcohol/drugs) (%)*	-	18	22	-	-
Never used a protective barrier (not under influence of alcohol/drugs) (%)*	-	52	49	-	-
Sex with a casual partner	n=61	n=56	n=52	-	-
Always used a protective barrier (not under influence of alcohol/drugs) (%)**	47	50	38	-	-
Never used a protective barrier (not under influence of alcohol/drugs) (%)**	12	5	6	-	-
No. of causal sexual partners **					
One person (%)	26	25	8	18	23
Two people (%)	25	21	19	29	20
3-5 people (%)	31	39	54	35	36
6-10 people (%)	11	9	15	9	10
10+ people (%)	7	5	4	9	10

Source: REU interviews, 2008-2012
[#] Casual partners only
* Of those who had sex with a regular partner
** Of those who had sex with a casual partner

7.3.2 Drug use during sex

Sixty-five participants reported having had sex with a casual partner while under the influence of drugs/alcohol in the past six months. Most reported having done so under the influence of alcohol (74%), followed by ecstasy (37%), cannabis (29%) and crystal meth (18%) (Table 27). Among this group, 57% reported using a condom with a casual partner the last time they had sex while using drugs.

Table 27: Sex under the influence of drugs in the preceding six months, 2011-2012

	2011	2012
Penetrative sex with casual partner while on drugs last 6 months	n=65	n=65
Number of times*	6	12
Once (%)	12	23
Twice (%)	38	25
3-5 times (%)	14	18
6-10 times (%)	29	22
Ten or more times (%)		
Drugs used*	32	37
Ecstasy (%)	35	29
Cannabis (%)	76	74
Alcohol (%)	24	9
Speed (%)	2	0
Base (%)	5	18
Crystal meth (%)	5	9
Cocaine (%)	6	2
Ketamine (%)	2	2
GHB (%)	11	2
LSD (%)		
Used a protective barrier last time (%)*	71	57
Did not use a protective barrier last time (%)*	29	43

Source: REU interviews, 2011-2012
* Of those who had penetrative sex with a *casual* partner under the influence of drugs in the last six months

7.4 Driving risk behaviour

Seventy per cent of the 2012 REU sample reported having driven a car/motorcycle/vehicle in the six months prior to being interviewed, a rate similar to previous years. Of those reporting having driven during this time, 42% (n=28) believed that they had driven while over the legal limit for alcohol in the preceding six months (Table 28). Those who believed that they had driven over the legal limit reported having done so on a median of two times in the last six months (range=1-40). Thirty-eight per cent of those who had driven had been tested by the police roadside breath test in the last six months and three people were over the legal alcohol limit when tested.

More than half (55%) of those who had driven in the last six months reported driving soon after (within one hour) consuming any illicit drug(s) on a median of 5.5 times (range=1-180) (Table 28). Of the REU who commented (n=40), one-third (33%) considered their drug use to have no impact on their driving ability, 45% reported their ability was impaired and the remaining REU reported their ability was improved. The drugs most commonly reported as being taken just before driving in the preceding six months by the 2012 REU sample were cannabis (58%), crystal meth (48%), ecstasy (33%) or speed (20%). (Table 28). Thirteen REU reported ever receiving a roadside drug test and one REU reported a recent positive test result.

Law enforcement KE were of the opinion that the mean age of people testing positive from roadside drug tests has increased, suggesting that drug using behaviour is not reducing with age. These KE also commented on drug use becoming more socially normalised.

Table 28: Drug driving in the last six months among REU, 2008-2012

	2008	2009	2010	2011	2012
Driven while over the legal limit of alcohol (last 6 months)[#] (%)	25	37	42	68	42
Driven soon after* taking a drug (last 6 months)[#] (%)	61	60	61	67	55
Of those who'd driven soon after					
Drug (%)					
Ecstasy	75	60	42	30	33
Cannabis	85	63	61	59	58
Speed	55	43	26	33	20
Cocaine	15	8	8	7	10
Crystal methamphetamine	15	3	3	17	48
Methamphetamine base	0	0	0	2	0
Ketamine	5	3	3	7	0
LSD	0	5	11	7	3
GHB	0	3	0	7	8
Other opiates	0	0	0	2	3
Benzodiazepine	5	0	3	15	5
MDA	0	0	3	0	0
Methadone	0	0	0	0	0
Amyl nitrate	0	5	0	2	0
Nitrous oxide	0	0	3	2	3
Heroin	0	0	8	4	3

Source: REU interviews, 2008-2012
[#] Of those who had driven a car in the last six months
* Within one hour of taking drugs

7.5 Risky alcohol use among REU

The 2012 REU sample were administered the World Health Organization's (WHO) Alcohol Use Disorders Identification Test (AUDIT) (Reinert & Allen, 2002). The AUDIT is a reliable and simple screening tool used as a measure of risky and high risk (or hazardous and harmful) drinking. Its 10 core questions cover the domains of alcohol consumption, drinking behaviour and dependence, and the consequences or problems related to drinking. Questions were designed to assess three conceptual domains: alcohol intake or consumption, dependence, and adverse consequences (Reinert & Allen, 2002).

The consumption score is scored from the first three questions of the AUDIT:

1. How often do you have a drink containing alcohol?
2. How many drinks containing alcohol do you have on a typical day when you are drinking?
3. How often do you have six or more drinks on one occasion?

A score of six or seven may indicate a risk of alcohol-related harm, particularly for those groups more susceptible to the effects of alcohol, such as young people, women, and people using other substances. Eighty-three per cent of respondents scored six or more on these questions in 2012 (Table 29). This is slightly higher than 72% of REU that scored six or more on the consumption score in the 2011 EDRS.

The dependence score is scored from questions four to six of the AUDIT:

4. How often during the last year have you found that you were not able to stop drinking once you had started?
5. How often during the last year have you failed to do what is normally expected from you because of drinking?
6. How often during the last year have you needed a first drink in the morning to get yourself going, after a heavy drinking session?

A score of four or more indicates the possibility of alcohol dependence. Twenty-seven per cent of participants had scores of four or more in 2012 compared to 20% in 2011 (Table 29).

The alcohol-related problems score is derived from the final four questions, any scoring on which is considered to warrant further investigation to determine whether the problem is of current concern and requires intervention:

7. How often during the last year have you had a feeling of guilt or remorse after drinking?
8. How often during the last year have you been unable to remember what happened the night before because you had been drinking?
9. Have you or someone else been injured as a result of your drinking?
10. Has a relative or friend or doctor or other health workers been concerned about your drinking or suggested you cut down?

Fourteen participants scored zero on these questions in 2012, compared to 16 in 2011. The remaining 86% of participants warranted further investigation (Table 29).

Total AUDIT scores of eight or more are regarded as indicators of hazardous and harmful alcohol use as well as possible alcohol dependence (Babor, Higgins-Biddle, Saunders, & Monteiro, 2001). Eighty-two per cent (n=80) of the REU sample who commented (n=98) scored eight or more, levels at which alcohol intake may be considered hazardous (Table 29), compared to 78% in 2011.

Table 29: AUDIT scores and proportion of REU scoring above recommended levels indicative of hazardous alcohol use, 2012

	Median score (range)	Percentage scoring above recommended level
Consumption score	8 (0-11)	83
Dependence score	1 (0-9)	27
Adverse consequences score	5 (0-14)	86
Total AUDIT score	14 (0-32)	82

Source: REU interviews, 2012

8 LAW ENFORCEMENT-RELATED TRENDS ASSOCIATED WITH ERD USE

Summary

- The most common criminal activity reported by the 2012 REU sample was drug dealing (25%).
- In the 2010/2011 financial year, approximately 24% of the arrests made in Australia for amphetamine-type stimulant offences occurred in Victoria, compared to 23% in the 2009/2010 financial year.
- In the 2010/2011 financial year, approximately 12% of the arrests made in Australia for cannabis offences occurred in Victoria, unchanged from the previous financial year.
- In the 2010/2011 financial year, 17% of the arrests made in Australia for hallucinogen offences (LSD or psilocybin mushrooms) occurred in Victoria, slightly higher than the percentage reported in the 2009/2010 financial year (15%).

8.1 Reports of criminal activity among REU

Seventeen participants in the 2012 REU survey reported that they had been arrested in the past 12 months (Table 30). Forty-nine per cent of participants reported engaging in any crime in the last month and, as in all previous years, the most common crime EDRS participants reported committing during the last month was drug dealing (35%).

Table 30: Criminal activity reported by REU, 2008-2012

Criminal activity in the last month	2008 (N=100)	2009 (N=100)	2010 (N=100)	2011 (N=101)	2012 (N=100)
Any crime (%)	41	50	44	50	49
Drug dealing (%)	37	36	33	33	35
Property crime (%)	9	23	18	25	25
Fraud (%)	5	0	1	5	3
Violent crime (%)	4	2	4	3	12
Arrested in the preceding 12 months (%)	**3**	**12**	**9**	**16**	**17**

Source: REU interviews, 2008-2012

8.2 Perceptions of police activity towards REU

Consistent with previous years, 42% of REU reported they believed police activity towards REU to have been stable in the past six months (Table 31).

Table 31: Perceptions of police activity by REU, 2008-2012

Recent police activity:	2008 (N=100)	2009 (N=100)	2010 (N=100)	2011 (N=101)	2012 (N=100)
Decreased (%)	2	1	1	1	0
Stable (%)	50	30	44	46	42
Increased (%)	29	46	29	19	14
Don't know (%)	19	23	26	34	44
Did not make scoring more difficult (%)[#]	85	76	79	-	-

Source: REU interviews, 2008-2012
[#] Scoring refers to purchasing illicit drugs

8.3 Arrests

8.3.1 Amphetamines

Table 32 details consumer (e.g., possession/use) and provider (e.g., trafficking/manufacture) arrests for amphetamine-type stimulants during 2010/2011 in Victoria and Australia. During that financial year, approximately 24% of the arrests made in Australia for amphetamine-type stimulant offences occurred in Victoria, compared to 23% in the 2009/2010 financial year (23%) (Australian Crime Commission, 2011).[9] The total number of consumer and provider arrests for amphetamine-type stimulants in Victoria during 2010/2011 was lower than in the 2009/2010 financial year (3,111 vs. 3,223).

Table 32: Amphetamine-type stimulants: Consumer and provider arrests, Victoria and national, 2010/2011

	Victoria (n)	Australia (n)	% of national arrests
Consumer	2,213	9,501	23.3
Provider	898	3,334	26.9
TOTAL*	3,111	12,897	24.1

Source: ACC

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

8.3.2 Cocaine

Table 33 details the comparatively small number of consumer (e.g., possession/use) and provider (e.g., trafficking/manufacture) arrests for cocaine during 2010/2011 in Victoria and Australia. During that financial year, approximately 14% of the arrests made in Australia for cocaine offences occurred in Victoria, a figure slightly lower than in the previous financial year (16%) (Australian Crime Commission, 2011). In Victoria, the total number of consumer and provider arrests decreased in the 2010/2011 financial year compared to the 2009/2010 financial year (116 vs. 196 respectively).

Table 33: Cocaine: Consumer and provider arrests, Victoria and national, 2010/2011

	Victoria (n)	Australia (n)	% of national arrests
Consumer	76	575	13.2
Provider	40	264	15.2
TOTAL*	116	839	13.8

Source: ACC

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

[9] 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.

8.3.3 Cannabis

Table 34 details consumer (e.g., possession/use) and provider (e.g., trafficking/manufacture) arrests for cannabis, during 2010/2011 in Victoria and Australia. During that financial year, approximately 12% of the arrests made in Australia for cannabis offences occurred in Victoria, unchanged from the previous financial year (Australian Crime Commission, 2011). In Victoria, the total number of consumer and provider arrests increased slightly in the 2010/2011 financial year compared to the 2009/2010 financial year (7,144 vs. 7,066 respectively).

Table 34: Consumer and provider arrests, Victoria and national, 2010/2011

	Victoria (n)	Australia (n)	% of national arrests
Consumer	5,570	50,845	11.0
Provider	1,574	7,694	20.5
TOTAL*	7,144	58,760	12.2

Source: ACC

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

8.3.4 Hallucinogens

Table 35 details the small number of consumer (e.g., possession/use) and provider (e.g., trafficking/manufacture) arrests for hallucinogens, during the 2010/2011 financial year in Victoria and Australia. During that financial year, 17% of the arrests made in Australia for hallucinogen offences (LSD or psilocybin mushrooms) occurred in Victoria, slightly higher than the percentage reported in the 2009/2010 financial year (15%) (Australian Crime Commission, 2011). The number of consumer and provider arrests for hallucinogen offences remains very low; however, the total number of consumer and provider arrests in Victoria decreased compared to the previous financial year, from 76 in 2009/2010 to 63 in 2010/2011.

Table 35: Hallucinogens: Consumer and provider arrests, Victoria and national, 2010/2011

	Victoria (n)	Australia (n)	% of national arrests
Consumer	50	283	17.7
Provider	13	89	14.6
TOTAL*	63	373	16.9

Source: ACC

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

8.4 Perception and knowledge about drug law threshold

REU were asked to answer hypothetical questions to measure their knowledge about drug law thresholds. REU were asked to imagine they were caught by police in possession of drugs, and then asked whether they believed they would be charged differently depending on the quantity they carried. Nearly all (93%) REU indicated that the quantity they carried would affect the type of charge they would receive.

REU were also asked to indicate what quantity of drugs they believed they would need to possess to be charged with selling or supplying as opposed to possession for personal use. REU most commonly reported quantities as 2g of heroin (range=0.1-10), 3g of methamphetamine (range=0.2-1000), 10 pills (range=1-300) or 3.5g (range=0.5-15) of MDMA, 4g of cocaine (range=0.5-1000), and 28g of cannabis (range=1-454) to be charged with of selling or supplying. These quantities were close to the actual trafficable thresholds for Victoria; 3g for pure heroin, cocaine, methamphetamine and MDMA, and 250g of cannabis leaf (Hughes, 2010).

9 SPECIAL TOPICS OF INTEREST

Summary

- A substantial proportion of 2012 REU (45%) reported a lifetime history of traumatic brain injury (TBI).
- Nine REU reported the TBI occurring when they were under the influence of drugs, with alcohol the most commonly reported drug used.
- One-tenth of REU reported ever using illicit psychostimulants (IPS) to lose or maintain weight, of which 60% were female.
- The most commonly reported IPS used for losing or maintaining weight was methamphetamine.
- The majority of the REU supported the legalisation of cannabis (86%) for personal use and half (53%) supported the legislation of ecstasy for personal use.
- Eighty-four per cent of REU supported the use of NSP to reduce problems associated with heroin use.
- Forty-nine REU reported daily smoking; of these REU 16% scored above five in the Fagerstrom Test for Nicotine Dependence indicating high to very high nicotine dependence.
- Twelve per cent of participants scored four or above in the severity of dependence (SDS) scale for ecstasy, suggesting dependence.

9.1 Neurological history

People with a neurological illness or injury may be at greater risk of experiencing adverse effects associated with drug use. Existing research indicates that there is an association between traumatic brain injury (TBI) and drug use (Corrigan, Bogner, & Holloman, 2012). This may be due to greater exposure to violence, mental illness, poor nutrition and poor sleep, among other factors. TBI is a major cause of morbidity and mortality in developed countries (Bruns Jr & Hauser, 2003) and can result in long-term physical and cognitive impairments, and can negatively impact upon psychological wellbeing, social and occupational outcomes (Tait, Anstey, & Butterworth, 2010). The cognitive, emotional and functional impairments associated with drug use could potentially compound those associated with TBI (Kelly, Johnson, Knoller, Drubach, & Winslow, 1997). In 2012, the EDRS examined the prevalence of selected reported neurological illnesses and also of TBI among regular psychostimulant users (RPU). Tables 36 and 37 outline the results of this investigation.

Table 36: Incidence of selected neurological conditions among REU/RPU, 2012

	VIC N=100
Epilepsy	0
Stroke	0
Hypoxia	1
Traumatic Brain Injury	45

Source: EDRS participant interviews, 2012

There were no reports of epilepsy or stroke in the 2012 REU sample. The lifetime prevalence of epilepsy was also low in the Australian population estimate (0.7%) obtained in the 2007-2008 National Health Survey. The same survey estimated the Australian prevalence of cerebrovascular disease (including stroke) as approximately 1.2%. A lack of reporting of stroke episodes by REU is likely due to the fact that this sample was largely young.[10] It is difficult to estimate the prevalence of hypoxic brain injury because it can result from a range of different situations (including drowning, carbon monoxide poisoning, heart attack etc.). Nonetheless, the prevalence in this group was low, with only one reporting having experienced hypoxia.

In contrast, a substantial proportion of the group (45%) reported a lifetime history of TBI.[11] In a recent study, Perkes et al. (2011) estimated the lifetime prevalence of TBI with loss of consciousness (LOC) as 35% among a community sample of males in Australia. Similarly, a cohort study conducted in Christchurch, New Zealand demonstrated that approximately 32% of the community sample had experienced at least a mild brain injury by 25 years of age. Both of these prevalence estimates are lower than that recorded in the 2012 EDRS. However, caution should be used when directly comparing these figures due to small sample size, differences in sampling techniques and data collection.

[10] Three quarters of all new stroke events occur in people aged 65 years and older (Bonita, 1992).

[11] TBI was measured as a knock on the head resulting in loss of consciousness.

Table 37: TBI among REU/RPU, 2012

	VIC n=45
Median No. TBIs	2
For most severe TBI	
Median LOC* (mins)	2 (range=1-4320)
Injury Severity (%)	
Mild TBI**	80
Moderate/severe TBI***	20
Median age (years)	23 (range=17-41)
Under influence of alcohol (%):	20
Under influence of drugs (%):	20
Main drug:*	n=9
Alcohol	89
Cannabis	44
Ecstasy	33
Benzodiazepines	22
Speed	22
Ice/crystal	22

Source: EDRS participant interviews, 2012
* LOC = Loss of consciousness
****** LOC < 30 minutes
******* LOC ≥ 30 minutes

Multiple TBIs were the norm with a median of two TBIs experienced over the lifetime (range=1-30). Participants were asked further details about the most severe occasion. The vast majority of participants who had experienced a TBI reported that the LOC on the most severe occasion lasted only a few minutes (consistent with a mild injury). However, a reasonable proportion (16%) of this group reported a LOC of greater than half an hour (consistent with a moderate to severe TBI). REU who reported losing consciousness due to TBI reported a median age of 23 years (range=17-41). Nine REU reported the TBI occurring when they were under the influence of drugs, with alcohol the most commonly reported drug used.

Some people experience neuropsychological sequelae (symptoms such as cognitive, motor and behavioural changes) following a TBI, which can complicate recovery. A large proportion of the group (69%) reported having experienced neurological sequelae immediately following the injury. The most common complaints were functional weakness (68%), memory loss (58%), poor co-ordination/balance (58%) and poor concentration (48%). Ongoing complaints were reported by 36% of those who had a TBI (n= 16).

Table 38: Effects of TBI among REU/RPU, 2012

	VIC n=45
Experienced any effects following the injury (%)	69
Experienced at the time (%):	n=31
Functional weakness	68
Poor concentration	48
Memory loss	58
Word finding problems	39
Poor co-ordination/ balance	58
Personality change	16
Mood/anxiety Issues	19

Source: EDRS participant interviews, 2012

9.2 Body image

Research has highlighted a link between psychostimulant use and body image, suggesting that adolescent girls and young women with negative weight perceptions are more likely to engage in both licit and illicit substance use (Leventhal, 1983; Nieri, Kulis, Keith, & Hurdle, 2005; Weathers & Billingsley, 1982). Negative weight perceptions are of particular concern for psychostimulant users because in addition to acting as mood enhancers, psychostimulant drugs suppress the appetite (Verheyden, Hadfield, Calin, & Curran, 2002; Vicentic & Jones, 2007). Other studies have found that female stimulant users exhibit higher levels of body image distortions and disordered eating behaviours than non-users (Curran & Robjant, 2006; Parkes, Saewyc, Cox, & MacKay, 2008) and that some young women reported using these drugs specifically to lose weight (Boys, Marsden, & Strang, 2001). For example, a recent Australian case report found that crystal meth or "ice" use was associated with the onset of disordered eating and used as an efficient weight loss method in an established eating disorder (Neale, Abraham, & Russell, 2009).

The aim of this module is to enhance understanding of the relationship between illicit psychostimulant (IPS) drug use and body image. Characteristics of REU who reported ever using IPS for weight management are presented in Table 39.

Table 39: Characteristics of REU who reported ever using IPS for weight management compared to those who did not, 2012

Have you ever used IPS to help lose or maintain weight? n(%)	**No** **n=90**	**Yes** **n=10**
Gender		
Male	63 (70)	4 (40)
Female	27 (30)	6 (60)
BMI		
<18.5 (underweight)	1 (1)	3 (33)
18.5-24.99 (normal)	59 (72)	4 (44)
≥25 (overweight)	22 (27)	2 (22)
Which IPS have you ever used to help lose or maintain weight?		
Ecstasy	-	2 (22)
Methamphetamine	-	5 (56)
Cocaine	-	2 (22)
Dexamphetamine	-	1 (11)
Duromine	-	2 (22)
Other/Don't know^	-	3 (30)
Which IPS did you last use to help lose/maintain weight?#		n=8
Methamphetamine	-	5 (63)
Duromine	-	1 (13)
Other/Don't know	-	2 (25)
Are you concerned you have lost too much weight loss because of your IPS use?		
Yes	13 (14)	3 (30)
No	77 (86)	7 (70)
Are you concerned that if you stop using IPS you will gain weight?		
Yes	7 (8)	4 (40)
No	83 (92)	6 (60)
Would weight gain be a desirable outcome should you cease or stop your IPS use?		
Yes	18 (20)	0 (0)
No	72 (80)	10 (100)

Source: REU interviews, 2012

^ Clenbuterol and diet pills

Of those who used IPS to lose or maintain weight during the past six months

One-tenth of REU reported ever using IPS to lose or maintain weight, of whom 60% were female. The most commonly reported drug used for losing or maintaining weight was methamphetamine. Eight REU reported recent use of IPS to lose or maintain weight.

9.3 Policy

Public opinion can play an important role in determining social policy and informing political processes (Matthew-Simmons, Love, & Ritter, 2008). The vast majority of public opinion data regarding attitudes to drug policy in Australia is collected at the broader population level. In 2012, additional questions in the EDRS were asked to provide data about how people who use drugs perceive Australian drug policy, building on research undertaken as part of the wider Drug Policy Modelling Program (DPMP) project "Public opinion and drug policy: engaging the 'affected community'"(Lancaster, Ritter, & Stafford, 2012).

EDRS policy questions were drawn from the National Drug Strategy Household Survey (Australian Institute of Health and Welfare, 2011) to ensure comparability with general population responses. Participants in the 2012 EDRS were asked three policy questions:

(1) Thinking about the problems associated with heroin use, to what extent would you support or oppose measures such as …
(2) To what extent would you support or oppose the personal use of the following drugs being made legal?
(3) To what extent would you support or oppose the increased penalties for sale or supply of the following drugs?

Table 40 presents the collated "strongly support" and "support" response findings from participants in the EDRS. Of the 2012 EDRS participants who commented, 84% supported the use of NSP to reduce problems associated with heroin use. Most participants supported methadone/buprenorphine maintenance programs, treatment with drugs (other than methadone) and regulated injecting rooms. The majority of the REU supported the legalisation of cannabis (86%) for personal use and half (53%) supported the legislation of ecstasy for personal use (Table 40). Small numbers supported increased penalties for sale or supply of cannabis (6%). Almost half supported increased penalties for sale or supply of heroin and around one-third to one-quarter for methamphetamine or cocaine (Table 40).

Table 40: Support for measures to reduce problems associated with heroin, for legalisation of illicit drugs and the increase of penalties for illicit drugs, 2012

	VIC N=100
Support measures to reduce problems associated with heroin use (%):	
NSP	84
Methadone/Buprenorphine maintenance program	68
Treatment with drugs (not methadone)	70
Regulated injecting room	67
Trial of prescribed heroin	30
Rapid detoxification therapy	43
Use of naltrexone	58
Support legalisation (personal use) of (%):	
Cannabis	86
Heroin	19
Methamphetamine	23
Cocaine	30
Ecstasy	53
Support increased penalties for sale or supply of illicit drugs (%):	
Cannabis	6
Heroin	47
Methamphetamine	32
Cocaine	25
Ecstasy	18

Source: REU interviews, 2012

9.4 Fagerstrom Test for Nicotine Dependence

For the second year consecutively, EDRS participants who smoked daily were asked two questions from the Fagerstrom Test for Nicotine Dependence (FTND) (n=49). This test includes questions such as: “How soon after waking do you smoke your first cigarette?” and “How many cigarettes a day do you smoke?” The sum of these scores was computed and a cut-off score of more than 5 was used to indicate high to very high nicotine dependency (Heatherton, Kozlowski, Frecker, & Fagerstrom, 1991).

As seen in Table 41, 12% of daily-smoking REU who commented reported smoking their first cigarette within five minutes of waking and 41% between five and 30 minutes of waking. Most daily smokers did not find it difficult to refrain from smoking in smoke free areas. Less than a third of the sample reported they would find the first cigarette in the morning the most difficult to give up. The majority of EDRS participants (88%) reported smoking 20 or fewer cigarettes per day. A minority (16%) reported that they smoked more in the morning, and two-fifths reported that they smoked even while bedridden with illness. The mean NDS score was 3.3 (SD=2.31). Sixteen per cent of daily smokers scored above five, indicating high to very high nicotine dependence.

Table 41: Fagerstrom test for nicotine dependence, by jurisdiction, 2012

	VIC N=100
Time for first cigarette after waking (%):	n=49
Within 5 minutes	12
5-30 minutes	41
31-60 minutes	25
60+minutes	22
Difficulty in refraining from smoking in forbidden places (%):	n=49
Yes	31
What cigarette would you hate to give up? (%)	
First in the morning	31
Other	69
Number of cigarettes smoked a day (%):	
10 or less	47
11-20	41
21-30	10
31+	2
Smoke more frequently in the morning (%):	
Yes	16
Smoke in bed even when sick (%):	
Yes	39
High dependence* (%):	n=49
	16
Mean score	3.3

Source: REU interviews, 2012
* Score of 6 and above

9.5 Ecstasy dependence

Whether it is possible to be dependent on ecstasy remains controversial. Currently, using the DSM-IV-TR, it is possible to be diagnosed with ecstasy dependence (coded as either amphetamine dependence or hallucinogen dependence), and there are clear case studies in the literature of people dependent on ecstasy. Animal models have demonstrated that dependence on ecstasy is biologically plausible.

To date, internationally, only a few studies have reported rates of dependence in ecstasy users. Studies from the United States household survey suggest a prevalence rate of past-year dependence in approximately 3.6%-3.8% of ecstasy users in the general population. An early NDARC study suggested a lifetime prevalence rate of 64% in types of REU similar to those interviewed in the EDRS.

In 2012, the participants in the EDRS were asked questions from the Severity of Dependence Scale (SDS) to investigate ecstasy dependence. The SDS is a five-item questionnaire designed to measure the degree of dependence on a variety of drugs. The SDS focuses on the psychological aspects of dependence, including impaired control of drug use, and preoccupation with and anxiety about use. The SDS appears to be a reliable measure of the dependence construct. It has demonstrated good psychometric properties with heroin, cocaine, amphetamine, and methadone maintenance patients across five samples in Sydney and London (Sindicich & Burns, 2012). A total score was created by summing responses to each of the five questions. Possible scores range from 0 to 15. A cut-off score of four was used to identify possible dependence (Sindicich & Burns, 2012).

For REU participants, the median SDS score was 1 (range=0-6). Twelve per cent of participants scored four or above, suggesting ecstasy dependence. The majority of participants (78%) reported never or almost never thinking that their use of ecstasy was out of control and 84% reported that they would not find it difficult to stop or miss a prospective dose of ecstasy. There were no significant gender differences regarding mean stimulant SDS score. Of those who scored four or above, one REU was female and 11 were male.

APPENDIX A

Table 1A: Emerging psychoactive substances – adapted from 2011 EDRS report (Scott & Burns, 2011)

Street name	Chemical name	Information on Drug
Phenethylamines		
(2C-x Class)		
2CB	2,5-dimethoxy-4-bromophenethy-amine	A psychedelic drug with stimulant effects
2CI	2,5-dimethoxy-4-iodophenethyl-amine	A psychedelic drug with stimulant effects
2CE	2,5-dimethoxy-4-ethylphenethyl-amine	A psychedelic drug with stimulant effects
2C Other		A psychedelic drug with stimulant effects
Phenethylamines *(Beta-ketones)*		
Mephedrone	4-methyl-methcathin-one	A stimulant which is closely chemically related to amphetamines
Methylone	3,4-methylenedioxy-N-methylcathinone	An entactogen and stimulant of the phenethylamine, amphetamine, and cathinone classes
Ivory Wave/MDPV	Methylenedioxypyrovalerone (3,4-methylenedioxy)	A cathinone derivative
Phenethylamines *(Amphetamine-based)*		
Benzo Fury (6-APB)	6-(2-minopropyl)benzofuran	A synthetic chemical with stimulant effects
Mescaline	3,4,5-trimethoxyphene-thylamine	A hallucinogenic alkaloid
MDAI	5,6-methylenedioxy-2-aminoindane	An empathogen. Its effects are sometimes compared to MDMA (ecstasy)
(Ergolines)		
LSA (Hawaiian Baby Woodrose)	d-lysergic acid amide	LSA is a naturally occurring psychedelic found in many plants such as morning glory
Tryptamines		
5MEO-DMT	5-methoxy-dimethyltrypt-amine)	A naturally occurring psychedelic tryptamine present in numerous plants and in the venom of the Bufo alvarius toad
DMT	Dimethyl tryptamine	A hallucinogenic drug in the tryptamine family
(Dissociative)		
DXM (Cough syrup)	Dextromethorphan	A semisynthetic opiate derivative which is legally available over the counter in the United States
Methoxetamine (MXE)	2-(3-methoxyphenyl)-2-(ethylamino)cyclohexanone	A sedative and a near chemical analog of ketamine
Salvia	Salvia divinorum	Salvia is derived from the American plant Salvia divinorum, a member of the mint family
Piperazines		
BZP	1-benzylpiperazine	A piperazine; a CNS stimulant
Other		
Synthetic cannabis (K2/Spice)	Synthetic cannabinoids	Usually sold as loose, generic plant material with a mix of chemicals on it (containing synthetic cannabinoids)
Other herbal highs		Naturally occurring substances used for a high
Capsules (contents unknown)		Capsules consumed by REU opportunistically without being aware of what the contents were

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