

# **WEST AUSTRALIAN TRENDS IN ECSTASY AND RELATED DRUG MARKETS 2011**



## **FINDINGS FROM THE ECSTASY AND RELATED DRUGS REPORTING SYSTEM (EDRS)**

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## ABBREVIATIONS

2C-B	2,5-dimethoxy-4-bromophenethylamine
2C-E	2,5-dimethoxy-4-ethylphenethylamine
2C-I	dimethoxy-4-iodophenethylamine
5MEO-DMT	5-methoxy-dimethyltryptamine
ABCI	Australian Bureau of Criminal Intelligence
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
ATS	Amphetamine-type Stimulants
AUDIT	Alcohol Use Disorders Identification Test
BBVI	blood-borne viral infections
BZP	benzylpiperazine
CIN	Cannabis Infringement Notice
DMT	dimethyltryptamine
DSM-IV	Diagnostic and Statistical Manual of Mental Disorders IV
DOI	“death on impact”; 2,5-dimethoxy-4-iodoamphetamine
DXM	dextromethorphan
EDRS	Ecstasy and Related Drugs Reporting System
EPS	Emerging psychoactive substance
ERD	Ecstasy and related drugs
GHB	gamma-hydroxy-butyrate
GP	general practitioner
HBV	hepatitis B virus
HCV	hepatitis C virus
HIV	human immunodeficiency virus
HSI	Heavy smoking index
IDRS	Illicit Drug Reporting System
IDU	Injecting drug users
KE	key expert
LSD	<i>d</i> -lysergic acid
MDA	3,4-methylenedioxyamphetamine
MDMA	3,4-methylenedioxymethamphetamine
NDARC	National Drug and Alcohol Research Centre
NDLERF	<i>National Drug Law Enforcement Research Fund</i>
NDSHS	National Drug Strategy Household Survey
OTC	Over-the-counter
PDI	Party Drugs Initiative
PMA	paramethoxyamphetamine
QOL	Quality of life
REU	regular ecstasy user
STI	sexually transmitted infection
WA	Western Australia
WHO	World Health Organization

## EXECUTIVE SUMMARY

This report presents the results of the Western Australian Ecstasy and Related Drugs Reporting System (EDRS), an ongoing study monitoring ecstasy and related drug markets within WA. It is part of a nationwide study, which commenced in New South Wales, Queensland and Victoria in 2000, with the addition of other states and territories in 2003. The survey design was informed by and modelled upon the pre-existing Illicit Drug Reporting System (IDRS), designed to monitor use of the main illicit drugs in Australia, developing a new survey for monitoring trends in the ecstasy and related drugs market. The current report provides findings for the eighth year of data collection in WA obtained from three sources:

1. Quantitative interviews with 28 current regular ecstasy users (REU) residing in the Perth metropolitan area;
2. Qualitative interviews with seven key experts (KE) who have regular contact with ecstasy users and are employed in areas including health, outreach, and law enforcement; and
3. Analysis of various indicator data from health and law enforcement sources.

### **CAVEAT**

**Substantial difficulties were encountered in 2011 in the recruitment process. While the WA EDRS annually attempts to recruit 100 REU, in 2011 only 28 eligible participants completed the questionnaire.**

**Use of ecstasy (MDMA) on at least a monthly basis is a criterion for participation in the EDRS survey. Large declines in perceived MDMA purity and availability during the first two quarters of 2011 resulted in a scarcity of potential participants able to meet these criteria. Further, a number of other potential respondents who were eligible declined to participate upon discovering that the interview was in a face-to-face format and could not be conducted over the phone or online.**

**As the final sample of 28 is extremely small, it is vital that all data in this report be interpreted with great caution.**

**In addition, although participation of small numbers of regular injecting drug users (IDU) in the EDRS survey is not a new phenomenon, in the context of a very small sample size their influence has been disproportionate. This has resulted in apparent increases in both injecting and consumption of heroin and other opiates in this year's sample which are unlikely to be reflective of actual trends in the Perth REU community. Consequently, results relating to use of opiates and injecting behaviour should be viewed with substantial scepticism.**

### **Demographic characteristics of regular ecstasy users**

For the purpose of this study, REU is a population defined by the use of ecstasy pills, powder or capsules on at least a monthly basis. In 2011, 28 REU were interviewed over the scheduled recruitment time.

It was evident that there were major differences in the demographic data between the 2010 and 2011 samples.

The 2011 WA sample was older with a mean age of 27 compared with 23 the previous year, and 68% were male compared with 48% in 2010. All identified as heterosexual compared with 86% in 2010, and they seemed less likely to have attained any qualifications after leaving school (37% vs 48%) and more likely to be unemployed (25% vs 13%). Proportions identifying as Aboriginal or Torres Strait Islander (4%), being from an English speaking background (96%) and the mean years of schooling (11 years) remained relatively unchanged. Due to these demographic differences between 2010 and 2011, and the very small 2011 sample size, attempts to draw comparisons across years have been kept to a minimum throughout this report.

## **Drug use and markets in the 2011 EDRS**

### **Ecstasy**

As regular use of ecstasy is a criteria for participation in the survey, it is unsurprising that both lifetime and recent ecstasy use amongst the sample was 100% (n=28). Mean days of use in the past six months was 17 and 29% (n=8) reported using ecstasy at least weekly. Consuming more than one tablet in a typical session was reported by 70% (n=20) of the sample with an average of 2.3 tablets being consumed each time. "Bingeing" (the use of ecstasy for more than 48 hours without sleep) was reported by 54% (n=15) of the 2011 sample.

Ecstasy was only rated as the "favourite drug" by 26% (n=7) of the sample which was the lowest figure ever recorded in the WA EDRS. It is unclear if this is a result of user perceptions that ecstasy purity at the time of the survey was poor, or the fact that there was a disproportionately larger proportion of IDU in the sample, whose drugs of choice are more likely to be opiates or methamphetamines.

The main route of administration of ecstasy remained swallowing, reported by 93% (n=26) of the 2011 sample. Having ever injected ecstasy was reported by 21% (n=6) of the 2011 sample, compared with just 6% in 2010. This apparent rise in injecting, however, is almost certainly caused by the higher proportion of IDU disproportionately skewing a very small sample, and almost certainly not a reflection of real trends in the Perth REU community.

Use of other drugs while using ecstasy was commonplace and reported by 68% (n=19) of the 2011 sample. Amongst those who had done so, the most common drugs mentioned were alcohol by 79% (n=15), cannabis by 53% (n=10) and tobacco by 47% (n=9). Using other drugs to come down from ecstasy was reported by 54% (n=15). The most common drugs mentioned in this context were cannabis by 73% (n=11), tobacco by 33% (n=5) and benzodiazepines by 27% (n=4).

The median price of a tablet of ecstasy was reported by users to be \$30. This price was reported as stable over the last six months by 57% (n=16) of the sample.

Purity of ecstasy currently available was rated as low by 86% of the sample which was the highest proportion reporting this since commencement of the WA EDRS. Conversely, there were no respondents describing the purity of ecstasy as high, which was the lowest proportion reporting this since commencement of the survey. Most respondents (57%, n=16) believed the purity of ecstasy in WA had been decreasing over the previous six months.

Although the majority of those surveyed described current availability of ecstasy as easy (50%, n=14), the combined figure of those REU describing availability as either easy or very easy (64%, n=18), is the lowest rate since EDRS reporting was commenced in WA.

Ecstasy was most commonly purchased through friends with a median of four tablets obtained per occasion. It was typically bought one to six times over a six-month period and was most commonly used at the users' own homes.

## **Methamphetamine**

Lifetime use of powder methamphetamine was reported by 67% of the sample and recent use by 44% with a mean of 44 days of use in the preceding six months. Amounts used typically ranged from between a half to a full gram. Base methamphetamine was less common with 36% (n=10) of REU reporting lifetime use and 11% (n=3) reporting using base in the last six months. It was used on a median of six days with quantities ranging from 1.5 point in a typical session up to two points in a heavy session. Lifetime use of crystal methamphetamine was reported by 64%. Use in the last six months was reported by 46% up from 22% in 2010. This increase does not appear to be associated with changes in the availability of crystal, but may be reflective of REU turning to alternative drugs in the absence of good quality ecstasy, or possibly because of the disproportionate numbers of IDU skewing the sample. As such, this data needs to be interpreted with caution. Mean days of use of crystal during the last six months was 19, with one point being used in a typical session.

Routes of administration differed between forms, with powder mostly snorted, base typically swallowed and crystal primarily smoked. Small numbers reported injecting powder and crystal.

Powder methamphetamine reportedly cost \$100 a point and \$800 a gram. Base cost \$100 per point and \$1,000 a gram. Crystal methamphetamine reportedly cost \$100 a point and \$400 per gram. It should be noted that price data was provided by very small numbers of respondents and this information should be interpreted with caution. Prices for powder and crystal were reported as being stable.

Crystal methamphetamine purity was generally described as high while opinions on powder methamphetamine was divided between medium and high. Base is not reported on due to the very small number of recent users. Availability of both powder and crystal was reportedly very easy. Despite very small numbers reporting on base, there was unanimous agreement that obtaining it was difficult. Availability of both powder and crystal was described as being stable. Again, base was not reported on due to very small numbers of respondents.

For all forms of methamphetamine, the most common source was friends. The most common locations for use of powder and crystal were private homes. Base was not reported on due to very small numbers of respondents.

## **Cocaine**

Lifetime use of cocaine was reported by 82% (n=22) of the current sample, and recent use was reported by 32% (n=9). Although this figure for lifetime use is by far the highest recorded since the WA EDRS commenced in 2003, it is likely due to the disproportionate numbers of IDU skewing the 2011 sample. Mean days of cocaine use in the last six months was six. One gram was the quantity that was typically used. Snorting remained the most common route of administration.

Median price of a gram of cocaine was \$375, but the small number of respondents reporting on this necessitates caution. Purity of cocaine was generally reported as low,

but there was no consensus as to whether this had recently changed. Cocaine was reportedly difficult to obtain and this was generally viewed as being stable. Again, small numbers of respondents necessitate caution in interpreting this data.

### **Ketamine**

Ketamine had a life time history of use by 18% (n=5) of respondents. There were no reports of recent use in the 2011 sample.

### **GHB**

A lifetime history of GHB use was reported by 14% (n=4) of respondents. There were no reports of recent use.

### **LSD**

A lifetime history of LSD use was reported by 71% (n=20) and recent use by 36% (n=10). The median price of a tab remained \$25. Current purity was generally described as medium or high with smaller numbers reporting it to be fluctuating. Purity over the last six months was generally reported to have been stable. Most respondents believed availability of LSD to be easy and had been stable. LSD was primarily obtained from friends and mostly used in private homes.

### **Cannabis**

A lifetime history of cannabis use was reported by 100% (n=28) of the 2011 sample and recent use by 93% (n=26). Mean days of use in the last six months was 113.

Median price of an ounce of hydroponic cannabis was \$350 and an ounce of bush cost \$250. These prices were generally described as stable. Potency of hydroponic cannabis was generally described as high and potency of bush as medium. Potency of both hydroponic and bush were primarily viewed as stable. Availability of hydroponic cannabis was most reported as very easy while opinions on the availability of bush was split between being very easy and easy. This availability was reportedly stable. Cannabis was most commonly obtained from friends and most typically used at home.

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

Lifetime history of alcohol use was reported by 100% (n=28) and recent use by 93% (n=26). Median days of use was 523, equating to once a week.

Both lifetime and recent use of tobacco was reported by 89% (n=25) of the sample. Use was typically on a daily basis.

Lifetime use of MDA was reported by 25% (n=7) and recent use by 14% (n=4) of the sample. Mean days of use in the last six months was one.

Use of illicitly obtained pharmaceutical stimulants remained common amongst WA REU with a lifetime history of use reported by 89% (n=25) and recent use by 68% (n=19). There were no reports of any licit use.

Lifetime use of illicitly obtained benzodiazepines was reported by 61% (n=17) and recent use by 29% (n=8). Median days of use in the last six months was three.

Lifetime use of amyl nitrate was reported by 29% (n=8) and recent use by 7% (n=2). Median days of use was 18.

Lifetime use of nitrous oxide was reported by 50% (n=14) and recent use by 18% (n=5). Median days of use in the last six months was two days.

Superficially, there appeared to have been a substantial increase in the use of heroin and of a history of having injected drugs. However, it is highly likely that these increases are due to the disproportionate number of regular IDU in the 2011 sample, and are not reflective of actual trends amongst the broader REU community. With this in mind, this data and also that relating to the use of other opiates should be considered with a degree of scepticism.

A lifetime use of psilocybin mushrooms was reported by 79% (n=22) and recent use by 11% (n=3). Days of use in the last six months was limited to one or two days.

Respondents were asked to report on their use of over-the-counter stimulants, such as cold and flu medications containing pseudoephedrine, for *recreational* use. Lifetime use in this context was reported by 43% (n=12) and recent use by 11% (n=3). The median number of days of use in the last six months was seven days.

Respondents were also asked about a range of emerging drugs or “research chemicals”. Those with respondents reporting recent use included DMT (25%, n=7), mephedrone (14%, n=4), Salvia Divinorum (11%, n=3), 2C-B (7%, n=2), 2C-E (4%, n=1) and DXM (4%, n=1).

Synthetic cannabis brands such as “Kronic” became an emerging issue in WA during the first half of 2011. Recent use of these was reported by 32% (n=9). Median days of use was two. A range of psychoactive chemicals found in synthetic cannabis were prohibited in WA by the Barnett Government in June 2011, effectively banning this class of drugs. The effectiveness of this ban is yet to be evaluated.

### **Health-related issues**

Since 2007, REU were asked about overdose on a stimulant drug and on a depressant drug. Overdose on a stimulant drug in the last 12 months was reported by 57% (n=16) of the current sample compared to 21% last year, and overdose on a depressant drug was reported by 57% (n=16) in 2011, compared to 29% in 2010. These “increases” seem improbably high and may be because of the very small sample size and disproportionate representation of IDU in the 2011 sample. As in previous years, the most commonly implicated stimulant drug was ecstasy, while the most commonly implicated depressant drug was alcohol. It should be noted, however, that this is a reflection of the preferred drugs of the EDRS target demographic and not solely a reflection of the drugs’ relative potential for toxicity.

In 2011, 18% (n=5) of REU reported accessing a medical or health service in relation to their drug use during the last six months. The most commonly accessed services were general practitioners.

The Kessler Psychological Distress Scale was included in the EDRS from 2006 as a screening tool for symptoms of depression and anxiety. In 2011, the most common categories were none or low distress. Self-reported mental health problems were reported by 14% (n=4).

Ecstasy dependence using the SDS was reported by 21% (n=6).

The AUDIT was used to screen for alcohol-related disorders. There were 23 REU (82%) who scored above the cut off score indicating hazardous or harmful alcohol use.

## **Risk behaviours**

Respondents reported on risk behaviours related to injecting, blood-borne viruses, sexual practices, driving behaviour and alcohol use.

Although there appeared to have been a substantial increase in numbers with a history of injecting drugs in the 2011 sample, this is almost certainly the result of a skewing of the sample by disproportionate numbers of IDU whose influence on the findings have been magnified by the small sample size. As such great caution is required in interpreting this data.

Fifty percent of the sample reported that they have been vaccinated for hepatitis B virus (HBV). Having been tested for hepatitis C virus (HCV) within the last year was reported by 15% (n=4) and having been tested over a year ago was reported by 37% (n=10). Having been tested for human immunodeficiency virus (HIV) within the last year was reported by 21% (n=6) and a further 25% (n=7) had been tested over a year ago. There were two respondents who were HCV positive, both with a history of injecting drugs. There were no respondents positive for HIV. It is likely that these findings have been influenced by the high number of IDU in the sample and as such, should be interpreted with caution. Having had other forms of sexual health check-up in the past year was reported by 36% (n=10).

Sex with a casual partner during the last six months was reported by 74% (n=20). Of these, 55% had had sex with multiple partners in that time. Of the 20 REU who had had sex with a casual partner, 95% (n=19) reported that they had done so while under the influence of drugs, most commonly alcohol, cannabis and ecstasy.

Of the current sample, 61% (n=17) had driven a car in the last six months. Among these respondents, 77% (n=13) reported driving whilst affected by alcohol and of these, 77% (n=10) reported driving over the legal alcohol limit. The median number of times these respondents had driven over the alcohol limit in the last six months was two times. Having been breathalysed was reported by 59% (n=10). Just one respondent had been over the legal blood alcohol limit when tested. Alcohol was the substance most commonly believed by respondents to be the most dangerous in the context of driving a car.

Of the current sample that had driven in the last six months, 53% (n=9) reported driving within one hour of taking a drug. Of these respondents, the median number of times driven under the influence of a drug was eight times. The most commonly reported drugs were ecstasy and cannabis. Of those who had driven soon after taking drugs, 33% (n=3) reported their drug use had no impact on their driving. In 2011, three respondents were roadside drug tested and all results were negative.

## **Criminal and police activity**

The proportion of REU reporting criminal activity in 2010 was 39% (n=11). Of these respondents, drug dealing was the most commonly reported activity reported by 73% (n=8). Of the current sample, 18% (n=5) had been arrested in the last 12 months.

In WA during 2009/10, there were 8,877 drug related arrests for consumer offences in WA and 2,144 provider offences. The drug most commonly involved was cannabis. There were also 1,391 Cannabis Infringement Notices (CINs) issued for cannabis possession.

A total of 118 clandestine laboratories were detected in 2009/10, up from 78 the previous year.

The levels of police activity towards REU was generally perceived as having remained stable during the previous six months.

### **Heavy smoking**

Using the Heavy Smoking Index (HIS), revealed that of those REU who were daily tobacco smokers, most (40%, n=6) were at a very low level of nicotine dependence. The mean score was 2.4.

### **Pleasure and quality of life**

Respondents were asked to rate their quality of life on a scale of one to 10, 10 being the highest quality. The mean score was eight (range=5-10). Being with friends was rated as the most important factor across all three domains of pleasure, happiness and overall quality of life. Although drugs were rated fifth on the pleasure domain, they were only rated as 12th in importance on the overall quality of life domain.

### **Online drug-related activity**

For the first time in 2011, REU were asked about their use of the internet for drug-related activities. Going online for a drug-related activity was reported by 77% (n=16) of those responding. The most common activity was searching for information with buying or selling drugs and precursor chemicals being substantially less common. Websites like Erowid or Pill Reports were the most common type of sites visited. More than half reported that texting was their preferred method for obtaining ecstasy and similar drugs. Respondents were also asked if they had used the internet to buy substances sold as "legal highs". Having ever done so was reported by 43% (n=12) and, of these, 75% (n=9) had made such a purchase in the last six months.

### **Sleep**

Respondents were asked a series of questions concerning their sleep patterns. For the main part, 68% (n=19) indicated that they felt their sleep to be either fair or good. Just 22% (n=6) felt their sleep to be either poor or very poor. Asked to rate satisfaction with their sleep on a scale of one to 10, produced a median score of seven on week days and of five on weekends. A median of seven hours sleep was reported on weekdays and a median of six on weekends. A median of seven hours sleep was reported as being required not to feel tired the next day. Asked if they felt they had any type of sleep problem, 58% (n=15) said they did not. Medication to assist with sleeping, primarily diazepam, was reported as having been taken in the last month by 21% (n=6) REU.

### **Ecstasy dependence**

For the first time in 2011, prevalence of ecstasy dependence amongst the REU sample was measured. Using the Severity of Dependence Scale (SDS), it was found that 21% (n=6) of the 2011 REU sample scored above the cut-off of four, indicating ecstasy dependence.

### **Implications for research**

It was evident that the 2011 WA EDRS encountered substantial difficulties in recruiting respondents, largely due to shortages of good quality ecstasy rendering potential respondents who met the criteria for participation difficult to find. Difficulties with the resulting small sample size (N=28) were further compounded by the recruitment of regular IDU into the sample. Although this is not a new development, in the context of a very small sample size the influence of such drug users is disproportionate on the results, in particular with regards to injecting behaviour and the use of heroin and other opiates. It may be necessary to make alterations to methods used in recruitment to avoid these problems in the future.



# 1. INTRODUCTION

The Ecstasy and Related Drugs Reporting System (EDRS) is an ongoing project funded by the Australian Government Department of Health and Ageing (AGDH&A) and modelled upon the more established Illicit Drugs Reporting System (IDRS). As the focus of the IDRS was upon injecting drug users, it did not directly acknowledge the distinct population regularly using ecstasy and related drugs. Consequently, in 2000, the National Drug Law Enforcement Research Fund (NDLERF) funded a two-year, two-state trial of the feasibility of monitoring emerging trends in the markets for ecstasy and related drugs (ERD) using the extant IDRS methodology. The EDRS terms of reference are the drugs that are routinely associated in the context of entertainment venues such as nightclubs or dance parties. This includes drugs such as ecstasy, amphetamines, cocaine, *d*-lysergic acid (LSD), ketamine, 3-4methylenedioxyamphetamine (MDA) and gamma-hydroxy butyrate (GHB). This marked the beginning of the Party Drugs Initiative (PDI), which became a national survey in 2003 and was re-named the Ecstasy and Related Drugs Reporting System in 2006.

The current report presents the findings of the ninth year of data collection for the PDI/EDRS in Western Australia (WA). Like the IDRS, results are based on three data sources: interviews with current illicit drug users (in this case regular ecstasy users or REU); key expert (KE) interviews with professionals who have contact with these users; and the collation of secondary indicator data. Also consistent with the paradigm of the IDRS as an 'early warning system', participants resided in the capital city, reflecting the likelihood that emerging trends in illicit drug markets are more likely to occur initially in large cities rather than regional centres or rural areas.

## 1.1. Study aims

The specific aims of the WA EDRS 2011 were to:

1. Describe the characteristics of a sample of current REU in Perth;
2. Examine patterns of ecstasy and other drug use among this sample;
3. Document market aspects of ERD in Perth, such as price, purity and availability;
4. Examine participants' experiences of the nature and incidence of ecstasy-related harm including physical, psychological, financial, social and legal harms;
5. Compare key findings of this study with those reported in previous years (2003-2009); and
6. Identify emerging trends in the ecstasy and related drug markets that may require further investigation.

## **2. METHOD**

A triangulated approach was used for the EDRS to provide an indication of emerging trends in use of ERD markets. Using multiple data sources minimises the impact of biases inherent in each source and permits validation of observed trends across the different data sources. The three main sources of information used to document trends were:

1. a survey of REU comprised of face-to-face interviews;
2. a KE survey of professionals working in the field using semi-structured qualitative interviews; and
3. examination of existing indicator data, such as statistical data collected from legal and health services.

### **2.1. Survey of REU**

There is an established market for ecstasy, i.e., tablets that are purported to contain 3, 4-methylenedioxymethamphetamine (MDMA) that has existed for more than a decade. According to the 2010 National Drug Strategy Household Survey (NDSHS), between 1995 and 2010, recent ecstasy use (use in the previous 12 months) among Australians over 14 years of age peaked at 3.5% in 2007, then for the first time since 1995, ecstasy use declined between 2007 and 2010 (3.0%) (AIHW, 2011a). In WA, 3.7% of the general population reported use of ecstasy in 2010, making it the state with the highest reported use of ecstasy (AIHW, 2011a). For the purposes of the present study, the sentinel population consisted of regular users of pills, powder or capsules sold as 'ecstasy'.

#### **2.1.1. Recruitment**

In 2011, only 28 REU were interviewed in Perth for the EDRS, despite employing similar recruitment methodology to previous years. The EDRS attempts to recruit 100 REU in each state and territory of Australia. Recruitment methods applied in 2011 failed to attract the numbers seen in previous years (n=100 in 2010) which may have been due in part to lower availability of ecstasy in WA. As a result of the low number of participants, comparisons with previous years have been withheld and trends should be interpreted with caution.

Twenty-eight REU were interviewed for the 2011 EDRS in WA, all of whom reported they had lived in the Perth metropolitan area for more than 12 months. Participants were recruited through a purposive sampling strategy (Kerlinger, 1986), which included: advertisements in entertainment street press; flyers distributed at music stores and universities; dance scene related websites and online forums; and participant snowballing techniques as described by Barnard (1995). Ethics approval was granted from the Curtin University Human Research Ethics Committee (HR36/2011) with a stipulation that interviews be conducted with participants aged 16 years or older.

#### **2.1.2. Procedure**

In 2011, potential participants contacted the research co-ordinator by either telephone, SMS (trialled for the first time in 2009), or by a generic email address and were then screened for eligibility only on the telephone. Participants were asked to leave either a first name or pseudonym and a contact phone number if they contacted the co-ordinator via SMS or email. Three criteria were to be met for participation:

1. Use of ecstasy at least monthly over the previous six months;
2. Aged 16 years or older; and
3. Resident in the Perth metropolitan area for minimum of 12 months prior to interview.

Participants meeting these criteria were informed that the study consisted of a confidential face-to-face interview conducted at a public place of convenience for both parties. It was

explained that the structured interview would take approximately 60 minutes to complete, and that all data would be collected anonymously. In 2011, participant reimbursement remained at \$40 to cover participants' time and travel expenses to attend the interview. Upon meeting the interviewer, the nature and purpose of the study was again explained to participants, and informed consent was obtained. All interviewers were trained in administration of the specific interview schedule.

### **2.1.3. Measures**

Participants were administered a structured interview schedule based on a national study of ecstasy users conducted by NDARC in 1997 (Topp et al., 1998; Topp et al., 2000). The original survey incorporated items from a number of previous NDARC studies of users of ecstasy (Solowij, Hall & Lee, 1992) and amphetamines (Darke et al., 1994; Hando & Hall, 1993; Hando, Topp & Hall, 1997) and has been revised over successive years of PDI/EDRS data collection. The interview schedule focused primarily on the six months preceding the interview. The survey allowed assessment of sample characteristics related to demographic information; ecstasy and other drug use history (including frequency and quantity of use and routes of administration); physical and psychological side effects of ecstasy; other ecstasy-related problems (i.e., relationship, legal, risk, or responsibility problems); price, purity and availability of different drugs; sexual and health-related behaviours; self-reported criminal activity; and general trends in the ERD markets such as new drug types, new drug users, and perceptions of police activity.

### **2.1.4. Data analysis**

Quantitative data from the REU survey were analysed using PASW Statistics 18 for Windows. Due to the very small sample size in the 2011 WA EDRS survey, tests for statistical significance were not considered to be meaningful. Qualitative data collected from the REU and KE were analysed using the word processing and table-making options of Microsoft Word 2010.

## **2.2. Survey of KE**

To maintain consistency with the central IDRS, eligibility criterion for KE participating in the EDRS was regular contact in the course of employment with a range of ecstasy users. Regular contact was defined as average weekly contact and/or contact with 10 or more ecstasy users throughout the past six months. Seven KE from professions in law enforcement, health and counselling participated in the WA EDRS 2011.

## **2.3. Other indicators**

Secondary data sources were examined to complement and validate the data collected from both the REU and KE interviews. Data sources included in this report are from:

- The 2010 NDSHS;
- Australian Crime Commission (ACC) – drug purity and seizure data, arrest data;
- Australian Institute of Health and Welfare (AIHW) – hospital admissions; and
- Telephone advisory service data from the Alcohol and Drug Information Service (ADIS).

### 3. RESULTS

#### CAVEAT

Substantial difficulties were encountered in 2011 in the recruitment process. While the WA EDRS annually attempts to recruit 100 REU, in 2011 only 28 eligible participants completed the questionnaire.

Use of ecstasy (MDMA) on at least a monthly basis is a criterion for participation in the EDRS survey. Large declines in perceived MDMA purity and availability during the first two quarters of 2011 resulted in a scarcity of potential participants able to meet these criteria. Further, a number of other potential respondents who were eligible declined to participate upon discovering that the interview was in a face-to-face format and could not be conducted over the phone or online.

As the final sample of 28 is extremely small, it is vital that all data in this report be interpreted with great caution.

In addition, although participation of small numbers of regular injecting drug users (IDU) in the EDRS survey is not a new phenomenon, in the context of a very small sample size their influence has been disproportionate. This has resulted in apparent increases in both injecting and consumption of heroin and other opiates in this year's sample which are unlikely to be reflective of actual trends in the Perth REU community. Consequently, results relating to use of opiates and injecting behaviour should be viewed with substantial scepticism.

#### **3.1. Overview of the regular ecstasy user sample**

Interviews were conducted with 28 REU (REU) in the Perth metropolitan area between April and June 2011. Table 1 presents key demographic data for the current and previous samples of REU recruited in WA.

The mean age of the REU sample was approximately 27 years. The majority of respondents were male (68%) and all participants were heterosexual in orientation. Approximately two-thirds of the 2011 sample reported their relationship status as 'single' (68%).

There was minimal representation of participants of Aboriginal and/or Torres Strait Islander descent (4%) and almost the entire sample across years spoke English as their main language.

Almost two-thirds of the sample reported residing in rented premises (64%), followed by living in their parents' or family's house (29%).

The mean number of school years completed was approximately 11 years.

Just over one-third of the sample had completed a tertiary qualification (36%). The number of full-time students in the sample was 7%. The proportion of the sample currently both employed and studying was 18%.

**Table 1: Demographic characteristics of WA REU samples, 2003-2011**

Variable	2003 (N=100)	2004 (N=100)	2005 (N=100)	2006 (N=100)	2007 (N=100)	2008 (N=58)	2009 (N=100)	2010 (N=100)	<b>2011 (N=28)</b>
Mean age (years)	21.4	22.0	22.7	24.7	26.4	22.9	23.1	23.4	<b>26.8</b>
Male (%)	53	59	58	60	55	48	65	48	<b>68</b>
English speaking background (%)	99	97	99	95	95	98	97	99	<b>96</b>
ATSI (%)	9	1	3	2	1	0	2	4	<b>4</b>
Heterosexual (%)	83	89	90	86	88	97	84	86	<b>100</b>
Mean number school years	12.1	11.5	11.5	11.5	11.5	11.8	11.5	11.7	<b>11.4</b>
Tertiary qualifications (%)	48	49	57	51	52	59	46	48	<b>36</b>
Full-time students (%)	16	21	14	19	3	3	13	8	<b>7</b>
Employed full-time (%)	33	31	33	52	24	55	22	31	<b>14</b>
Employed part-time (%)	16	22	35	13	38	12	23	29	<b>21</b>
Both studying and employed	-	-	-	-	-	24	27	17	<b>18</b>
Unemployed (%)	22	24	15	14	25	5	15	13	<b>25</b>
Mean income per week	-	-	-	-	-	-	\$425	\$467	<b>\$471</b>
Current drug treatment (%)	5	6	6	5	8	3	5	3	<b>7</b>

**Source: WA PDI/EDRS REU interviews, 2003-2011**

## **4. CONSUMPTION PATTERN RESULTS**

### **4.1. Drug use history and current drug use**

Respondents were asked about lifetime (ever used) and recent use (last six months) of a variety of drugs, as presented in Table 2. The majority of the sample reported recent use of alcohol (93%), tobacco (89%), cannabis (86%) and pharmaceutical stimulants (68%).

Small proportions of REU samples have reported use of drugs other than those listed in Table 2. In 2011, recent use of other drugs such as DMT (25%) and mephedrone (14%) were also reported (see Section 4.9 on 'other drugs' for more detailed analyses).

Respondents were also asked about their injecting history. The proportion ever injected in 2011 was 36% and the proportion of these who had recently injected was 70% (See Section 7.1, 'Injecting risk behaviours', for further analyses.)

**Table 2: Lifetime and recent polydrug use of WA REU samples, 2003-2011**

	2003 N=100	2004 N=100	2005 N=100	2006 N=100	2007 N=100	2008 N=58	2009 N=100	2010 N=100	<b>2011 N=28</b>
Ever inject any drug (%)	21	22	22	20	27	10	11	10	<b>36</b>
Alcohol ever used (%)	99	99	99	100	97	100	100	100	<b>100</b>
used last 6 months (%)	94	92	98	99	92	98	99	98	<b>93</b>
Cannabis ever used (%)	99	97	99	100	96	100	99	99	<b>100</b>
used last 6 months (%)	91	85	83	86	80	85	85	81	<b>86</b>
Tobacco ever used (%)	83	84	86	97	79	90	92	84	<b>89</b>
used last 6 months (%)	70	73	72	74	52	69	76	67	<b>89</b>
Methamphetamine powder (speed) ever used (%)	93	88	94	87	72	72	63	60	<b>67</b>
used last 6 months (%)	83	78	85	65	46	38	37	38	<b>44</b>
Methamphetamine base (base) ever used (%)	54	46	59	56	22	22	13	8	<b>36</b>
used last 6 months (%)	32	31	38	32	10	5	3	4	<b>11</b>
Crystal methamphetamine (crystal) ever used (%)	91	89	88	89	69	62	41	40	<b>64</b>
used last 6 months(%)	77	80	69	77	52	36	20	22	<b>46</b>
Pharmaceutical stimulants ever used (%)	-	-	89	92	71 <sup>#</sup>	85 <sup>#</sup>	82 <sup>#</sup>	83 <sup>#</sup>	<b>89<sup>#</sup></b>
used last 6 months (%)	-	-	74	60	53 <sup>#</sup>	53 <sup>#</sup>	60 <sup>#</sup>	58 <sup>#</sup>	<b>68<sup>#</sup></b>
Cocaine ever used (%)	44	36	57	55	56	66	52	51	<b>82</b>
used last 6 months (%)	17	16	35	29	27	40	24	26	<b>32</b>

**Table 2: Lifetime and recent polydrug use of WA REU samples, 2003-2011 (continued)**

	2003 N=100	2004 N=100	2005 N=100	2006 N=100	2007 N=100	2008 N=58	2009 N=100	2010 N=100	2011 N=28
LSD									
ever used (%)	62	50	71	67	49	47	55	48	<b>71</b>
used last 6 months (%)	22	11	35	25	23	21	31	35	<b>36</b>
MDA									
ever used (%)	12	19	19	6	22	16	9	11	<b>25</b>
used last 6 months (%)	1	6	11	0	3	5	2	5	<b>14</b>
Ketamine									
ever used (%)	25	21	25	14	22	21	18	14	<b>18</b>
used last 6 months (%)	12	10	11	4	2	3	6	4	<b>0</b>
GHB									
ever used (%)	20	11	10	5	8	7	7	3	<b>14</b>
used last 6 months (%)	8	5	3	2	0	2	2	0	<b>0</b>
Amyl nitrate									
ever used (%)	43	36	46	34	27	21	20	20	<b>29</b>
used last 6 months (%)	16	15	17	8	7	3	6	5	<b>7</b>
Nitrous oxide									
ever used (%)	65	62	63	57	46	48	39	39	<b>50</b>
used last 6 months (%)	43	43	34	23	20	21	13	16	<b>18</b>
Mushrooms									
ever used (%)	-	-	53	53	46	45	50	43	<b>79</b>
used last 6 months (%)	-	-	14	13	14	10	15	12	<b>11</b>
Benzodiazepines									
ever used (%)	48	35	49	57	48 <sup>#</sup>	36 <sup>#</sup>	41 <sup>#</sup>	44 <sup>#</sup>	<b>61<sup>#</sup></b>
used last 6 months (%)	32	29	39	32	37 <sup>#</sup>	24 <sup>#</sup>	22 <sup>#</sup>	28 <sup>#</sup>	<b>39<sup>#</sup></b>
Anti-depressants									
ever used (%)	30	25	32	29	26 <sup>#</sup>	17 <sup>#</sup>	21 <sup>#</sup>	24 <sup>#</sup>	<b>29<sup>#</sup></b>
used last 6 months (%)	17	13	13	14	13 <sup>#</sup>	9 <sup>#</sup>	6 <sup>#</sup>	10 <sup>#</sup>	<b>4<sup>#</sup></b>



**Table 2: Lifetime and recent polydrug use of WA REU samples, 2003-2011 (continued)**

	2003 N=100	2004 N=100	2005 N=100	2006 N=100	2007 N=100	2008 N=58	2009 N=100	2010 N=100	2011 N=28
Heroin									
ever used (%)	10	13	15	10	16	3	6	4	<b>25</b>
used last 6 months (%)	1	8	6	1	10	2	2	3	<b>11</b>
Methadone									
ever used (%)	1	4	8	4	12	5	4 <sup>#</sup>	3 <sup>#</sup>	<b>7<sup>#</sup></b>
used last 6 months (%)	1	1	3	2	6	0	1 <sup>#</sup>	2 <sup>#</sup>	<b>0<sup>#</sup></b>
Buprenorphine									
ever used (%)	6	4	5	3	10	3	2 <sup>#</sup>	2 <sup>#</sup>	<b>11<sup>#</sup></b>
used last 6 months (%)	4	1	2	1	4	2	- <sup>#</sup>	1 <sup>#</sup>	<b>11<sup>#</sup></b>
Other opiates									
ever used (%)	31	18	41	24	35	24	20	17	<b>43<sup>#</sup></b>
used last 6 months (%)	17	10	27	13	21	12	10	10	<b>14<sup>#</sup></b>
OTC codeine									
Ever used (%)	-	-	-	-	-	-	20	29	<b>57</b>
Used last 6 months (%)	-	-	-	-	-	-	15	22	<b>43</b>
Over-the-counter stimulants									
ever used (%)	-	-	-	-	-	-	19	36	<b>43</b>
used last 6 months (%)	-	-	-	-	-	-	8	26	<b>11</b>
Steroids									
ever used (%)	-	-	-	-	-	-	-	1	<b>0</b>
used last 6 months (%)	-	-	-	-	-	-	-	0	<b>0</b>

**Source: WA PDI/EDRS REU interviews, 2003-2011**<sup>#</sup> includes licit and/or illicit use

## **4.2. Ecstasy use**

Ecstasy is the term used in popular street culture for the drug MDMA, or 3, 4-methylenedioxymethamphetamine. This drug is classed as a hallucinogenic amphetamine and commonly associated with what was previously termed the 'party drug' scene.

Presented in Table 3 are key findings regarding ecstasy use in the samples recruited over the last eight years in WA. The average age at which participants first used ecstasy has remained at 18 years since 2008. The proportion reporting ecstasy as their 'drug of choice' was 26%. Cannabis was also nominated by 26% of the sample as their 'drug of choice'.

The proportion reporting use of ecstasy on a weekly basis or more was 29%. The average amount used in a 'typical' session was 2.3 tablets. Three-quarters of the sample (75%) reported typically using more than one tablet in a session.

Swallowing was consistently reported as the main route of administration and was reported by 93% of the sample in 2011; the remaining respondents reported 'snorting' (7%) as the main route of administration. One-fifth of the sample (21%) reported ever injecting ecstasy.

The majority of the sample (68%) reported using other drugs with ecstasy and 54% of the sample reported use of other drugs to 'come down' from ecstasy (Table 3).

**Table 3: Patterns of ecstasy use among REU, 2003-2010**

	2003 N=100	2004 N=100	2005 N=100	2006 N=100	2007 N=100	2008 N=58	2009 N=100	2010 N=100	2011 N=28
Mean age first used ecstasy (years)	18	18	18	19	20	18	18	<b>18</b>	<b>18</b>
Mean days used ecstasy last 6 months <sup>#</sup>	16	16	20	21	16	13	12	<b>14</b>	<b>17</b>
Ecstasy 'favourite' drug (%)	52	44	51	41	46	38	42	<b>45</b>	<b>26</b>
Use ecstasy weekly or more (%)	25	21	30	35	27	10	29	<b>14</b>	<b>29</b>
Mean ecstasy tablets in 'typical' session	1.7	2.2	1.7	2.0	1.8	2.1	2.5	<b>2.1</b>	<b>2.3</b>
Typically use >1 tablet (%)	57	61	68	70	54	74	86	<b>81</b>	<b>75</b>
Recently binged on ecstasy or related drugs (%) ~	38	38	40	45	29	22	40	<b>27</b>	<b>54</b>
Ever injected ecstasy (%)	10	14	10	12	14	7	4	<b>6</b>	<b>21</b>
Main ROA of ecstasy in the last 6 months (%)									
Swallow	90	93	95	98	95	91	99	<b>94</b>	<b>93</b>
Snort	-	-	3	1	5	9	1	<b>5</b>	<b>7</b>
Inject	-	-	2	-	-	-	-	<b>1</b>	-
Shelve/shaft <sup>^</sup>	-	-	-	1	-	-	-	-	-

**Table 3: Patterns of ecstasy use among REU, 2003-2011 (continued)**

	2003 N=100	2004 N=100	2005 N=100	2006 N=100	2007 N=100	2008 N=58	2009 N=100	2010 N=100	2011 N=28
Typically use other drugs in conjunction with ecstasy (%)	85	86	90	94	93	97	73	<b>84</b>	<b>68</b>
Typically use other drugs to 'come down' from ecstasy (%)	76	80	86	86	86	90	54	<b>39</b>	<b>54</b>

**Source: WA PDI/EDRS REU interviews, 2003-2008**

~ 'Binge' defined as use of ecstasy for more than 48 hours continuously without sleep

^ 'Shelve/shaft' defined as use via insertion into vagina (shelving) or the rectum (shafting)

# Used ecstasy pills and/or powder

A couple of KE commented on use of ecstasy. A youth worker observed that they had been hearing less of their clients mentioning ecstasy in the last 12 months, while a KE from the crowd control industry also agreed the use of ecstasy was down, which they described as *"unfortunate since ecstasy users were so much easier to deal with and less violent."*

#### **4.2.1. Use of other drugs with ecstasy and during comedown**

Among REU reporting use of other drugs with ecstasy (n=19), those most typically used were alcohol (79%, n=15), cannabis (53%, n=10) and tobacco (47%, n=9). Among those reporting they use drugs to 'come down' from ecstasy (n=15) the most common were cannabis (73%, n=11), tobacco (33%, n=5) and benzodiazepines (27%, n=4).

Half of the current sample (54%) reported using alcohol with ecstasy in the last six months. Among these respondents, 20% (n=3) reported usually consuming less than five standard drinks with ecstasy, with the remaining 80% (n=12) reported consuming more than five standard drinks with ecstasy. During comedown, 11% of the sample reported drinking alcohol. All of these respondents reported consuming more than five standard drinks whilst coming down from ecstasy.

Almost one-third of the 2011 sample (32%) reported using tobacco with ecstasy. Of those reporting use of drugs during 'comedown', 33% (n=5) reported tobacco use. More than one-third of the current sample (36%) reported using cannabis with ecstasy. Among those reporting use of drugs during 'comedown' from ecstasy, 73% (n=11) reported using cannabis.

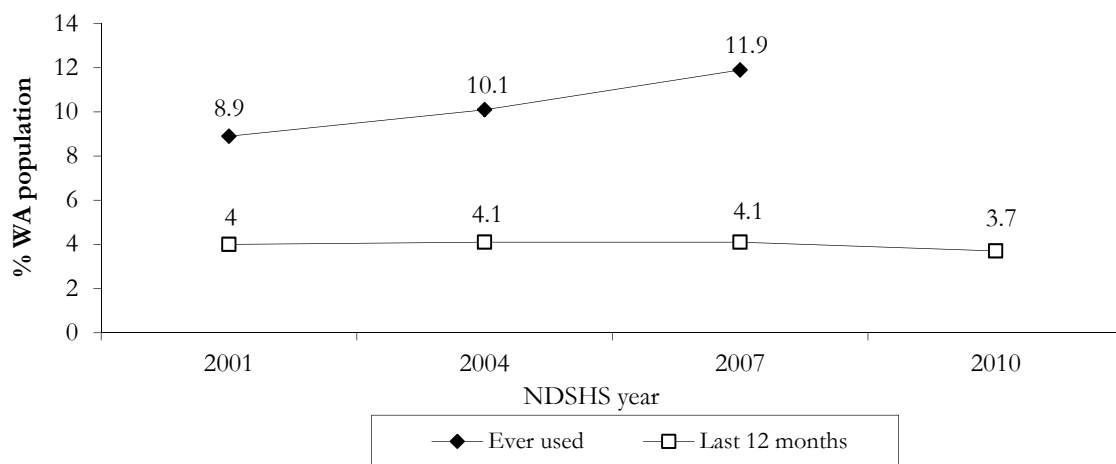
Among those reporting use of other drugs with ecstasy, 17% (n= 5) of the 2011 sample reported pharmaceutical stimulant use. In 2011, no respondents reported use of pharmaceutical stimulants to come down from ecstasy. One respondent reported using amyl nitrite with ecstasy and no respondents reported use during comedown. No respondents reported using nitrous oxide with ecstasy or during comedown from ecstasy.

No respondents reported using benzodiazepines whilst under the influence of ecstasy. In contrast, 27% of those reporting use of other drugs to come down from ecstasy reported using benzodiazepines at this time.

#### 4.2.2. Use of ecstasy in the general population

The NDSHS has been conducted at various intervals in Australia since 1988. As shown in Figure 1, in WA, lifetime use of ecstasy reported in this survey has steadily increased from 2001 to 2007, whereas recent use has remained comparable. In WA, ecstasy was reported as a drug used in the last 12 months by 4% of those aged 14 years and over. WA was the state with the highest use of ecstasy in the general population followed by South Australia (AIHW, 2011a).

**Figure 1: Prevalence of ecstasy use among the population aged 14 years and over in Western Australia, 2001-2010**



**Source: NDSHS and NDSHS State and Territory supplements, 2001-2010**

**Note: Data concerning lifetime use of ecstasy in WA was not available at time of writing**

### **4.3. Methamphetamine use**

Methamphetamine became a primary focus of the IDRS in 2001, in recognition of its increasing prevalence over amphetamine during the 1990s. These drug types differ in molecular structure but have a similar effect of stimulating the release of monoamines such as dopamine, noradrenaline, adrenaline and serotonin in the body (Seiden, Sobol & Ricaurte, 1993). Throughout the 1980s, amphetamine sulfate was the dominant form of illicit amphetamine in Australia but, due to legislative controls on the availability of primary precursor chemicals, there was a shift toward alternative recipes for 'cooking' amphetamine (Wardlaw, 1993). During the 1990s, the proportion of amphetamine-type substance seizures that were methamphetamine (rather than amphetamine) steadily increased until methamphetamine clearly dominated the market (ABCI, 1999; ABCI, 2000; ABCI, 2001). Across Australia today, the powder traditionally known as 'speed' is almost exclusively methamphetamine rather than amphetamine. For example, in the 2006/07 financial year, of the 4,396 seizures of (non-phenethylamine) amphetamine-type seizures analysed for purity in Australia, 97.9% (by number) were methamphetamine rather than amphetamine (ACC, 2008).

As methamphetamine markets across the country have expanded over the past few years, it has become apparent that there is a diversity of forms, or presentations, of methamphetamine sold in the Australian illicit drug market.

Powder form methamphetamine is the presentation of the drug which has traditionally been available in Australia. This is commonly a powder that can range from fine to more crystalline or coarse, and may take different colours (commonly white, yellow, brown, orange or pink), depending on the chemical process used in its production and the quality of that process. It is typically produced within Australia, most commonly in small, portable 'laboratories', and is usually based on pharmaceutical pseudoephedrine (extracted from, for example, Sudafed tablets). Because of its powder form, it is fairly easy to 'cut' (dilute) and is commonly sold at fairly low purity/potency, although this can vary substantially.

The two other 'forms' of methamphetamine are traditionally higher in potency (at least partially due to being more difficult to 'cut') and have increased in availability across all Australian jurisdictions in the past decade (Topp et al., 2002). The first, referred to in some jurisdictions as 'base' or 'paste', is commonly a gluggy, waxy, oily, 'wet' powder. This form of the drug appears oily because the conversion process from pseudoephedrine to methamphetamine produces the alkaline (base) form of methamphetamine, which is 'oily'. To convert this to a more easily usable form (methamphetamine hydrochloride crystals, which may take the appearance of powder or, when no impurities are present, and carefully crystallised, may take the form of the 'ice' crystals – discussed below) requires a high level of skill, and, when not completed correctly, the result of this process is an oily powder that often has a yellow or brownish tinge due to the presence of iodine and other impurities (Topp & Churchill, 2002).

The final form of methamphetamine examined in the current study is often referred to as 'ice' or 'crystal meth(amphetamine)'. This is the product of a careful production process, and is believed to be chiefly imported into Australia from Asian countries (Topp & Churchill, 2002), although there are also indications of local production in recent years (ACC, 2007). It commonly appears as clear, ice-like crystals, and, as such, is difficult to 'cut', resulting in a relatively high purity/potency product.

#### **4.3.1. Methamphetamine powder**

Table 4 presents patterns of use of methamphetamine powder, or 'speed', since data collection began in WA in 2003. Two-thirds of the sample (67%) (n= 19) reported lifetime use

of speed and 44% (n= 12) reported recent use. The average number of days speed was used in the previous six months was 14 days in 2011.

The median amount of speed used in a 'typical' session was 0.5 grams and the median amount used in a heavy session was one gram. Among those who reported recent use of speed (n=12), snorting was the most common method of use reported by 83% (n=10), followed by swallowing 58% (n=7), and injecting and smoking, both 33% (n=4).

There were two KE who commented on speed use, the first stating that its use had decreased. The second, however, a youth worker, indicated that amongst their clientele that speed was the main drug seen, with an increase in people using over the last year, typically either by injecting or snorting. This KE speculated that the increase in speed use may be linked to fewer people using ecstasy.

**Table 4: Patterns of methamphetamine powder (speed) use of REU, 2003-2011**

<b>Speed</b>	2003 N=100	2004 N=100	2005 N=100	2006 N=100	2007 N=100	2008 N=58	2009 N=100	2010 N=100	<b>2011 N=27</b>
Ever used (%)	93	88	94	87	72	72	63	60	<b>67</b>
Used preceding six months (%)	83	78	85	65	46	38	37	38	<b>44</b>
<b>Of those who had used</b>									
Mean days used last 6 months	16	18	15	13	19	15	7	6	<b>44</b>
<b>Median amount used (gm)</b>									
Typical (range)	0.2 (0.01-2)	0.5 (0.1-5)	0.5 (0.1-2)	0.35 (0.1-1)	0.1 (0.1-1)	0.4 (0.2-.50)	1 (0.25-1)	0.5 (0.1-1)	<b>0.5 (0.1-1)</b>
Heavy (range)	0.6 (0.1-10)	0.5 (0.1-20)	1 (0.1-6)	0.5 (0.1-8)	0.3 (0.1-7)	0.5 (0.25-7)	1 (0.25-10)	1.5 (0.25-4)	<b>1 (0.2-2)</b>

**Source: WA PDI/EDRS REU interviews, 2003-2011**



### **4.3.2. Methamphetamine base**

In 2011, 36% (n=10) of the sample reported lifetime use of base and 11% (n= 3) reported recent use. Base was used on a median of six days in the last six months (range=2-24).

The median amount used in a typical session was 1.5 points and the median amount used in a heavy session was two points. Among those who had used in the last six months (n=3), the most common route of administration reported was swallowing (67%, n=2), followed by injecting and smoking, each reported by one respondent (33%). No further analysis was performed for base methamphetamine due to extremely small sample numbers.

Two KE commented on base methamphetamine, one noting that there was not much base around, and the other that base was "*cheaper and nastier*".

### **4.3.3. Crystal methamphetamine**

As shown in Table 5, lifetime use of crystal methamphetamine was reported by 64% (n=18) and recent use 46% (n=13). The average number of days used in the last six months was 19 days in 2011. The median number of days crystal was used in the last six months was 16 (range=1-70).

The median amount used in a typical session was one point as was the amount used in a heavy session. Of those who reported use of crystal in the preceding six months (n=13), the most common route of administration remained smoking, reported by 85% (n=13). Snorting was the next most common route of administration, reported by 46% (n=6). Injecting was reported by 38% (n=5) and swallowing was reported by 31% (n=4).

Although there appeared to be a substantial increase in use of crystal methamphetamine since the previous year, no corresponding rise was reported in the 2011 WA IDRS (Rainsford & Lenton, 2012), suggesting that this is probably not a result of changes in availability. However, it cannot be determined if this is a reflection of REU seeking alternative drugs in the absence of high quality ecstasy, or if it is due to abnormally high numbers of IDU skewing the sample. As such, this data should be interpreted with caution.

**Table 5: Patterns of crystal methamphetamine use of REU, 2003-2011**

<b>Crystal</b>	<b>2003 N=100</b>	<b>2004 N=100</b>	<b>2005 N=100</b>	<b>2006 N=100</b>	<b>2007 N=100</b>	<b>2008 N=58</b>	<b>2009 N=100</b>	<b>2010 N=100</b>	<b>2011 N=28</b>
Ever used (%)	91	89	88	89	69	62	41	40	<b>64</b>
Used last six months (%)	77	80	69	77	52	36	20	22	<b>46</b>
<b>Of those who had used</b>									
Mean days used last 6 months	17.4	22.2	14.1	13.6	27.7	11.9	9.2	7.9	<b>19.0</b>
<b>Median quantities used (points)</b>									
Typical (range)	1 (0.1-10)	2 (0.3-10)	1 (0.1-40)	1 (0.5-10)	1 (0.1-5)	1 (0.1-3)	2 (0.25-5)	1 (0.1-4)	<b>1 (0.5-2.5)</b>
Heavy (range)	2.5 (0.1-50)	2 (0.33-48)	3 (0.25-40)	2 (0.5-40)	2 (0.2-5)	1 (0.1-8)	2 (0.25-8)	2 (0.4-8.5)	<b>1 (0.5-2.5)</b>

**Source: WA PDI/EDRS REU interviews, 2003-2011**

Key informants made a number of comments concerning the use of methamphetamine and crystal in particular. One KE from the crowd control industry observed that crystal was more prevalent (than powder) and could be smoked, noting that its use was on the rise and that the biggest issue faced by the industry was combinations of methamphetamines, steroids and alcohol which “*made people hard to control*”. This KE went on to add “*the meth crowd is typically from 18-25. They don’t seem to think it’s particularly bad. Often they don’t drink but smoke meth. There’s a blasé attitude almost like there was to cannabis in the past*”. Two other KE, both from the law enforcement sector, indicated that while methamphetamine came in a variety of forms, crystal was currently predominant and was currently the main problematic drug. One of these KE also indicated that the main routes of administration appeared to be injecting and smoking.

#### **4.3.4. Methamphetamine use in the general population**

Figures from the 2010 NDSHS showed (meth)amphetamine to be the fifth most frequently used illicit drug in Australia after cannabis, ecstasy, hallucinogens and cocaine, with 7% of respondents reporting lifetime use and 2% reporting use in the last 12 months. WA continued to be the jurisdiction with the highest rates of recent use of (meth)amphetamine, with recent use reported by more than 3% of the population aged 12 years or older (AIHW, 2011a).

#### **4.4. Cocaine use**

As shown in Table 6, 82% (n=23) of the sample reported lifetime use of cocaine and 32% (n=9) reported recent use. Although this figure for lifetime use is by far the highest recorded since the WA EDRS commenced in 2003, it is likely due to the disproportionate numbers of IDU skewing the 2011 sample. Of those who used cocaine in the last six months (n=9), the average number of days used in this period was four days. The median number of days cocaine was used in this period was 1.5 with a range from one to 15 days.

All of those that had used cocaine recently (n=9) reported snorting as the main route of administration in the last six months. Swallowing, injecting, smoking and shelving were not reported as a mode of administration in the last six months for those that had used cocaine recently. Five respondents who had used cocaine in the last six months reported on amounts used in grams. The median quantity reported for a typical session was one gram, as was the median quantity reported for a heavy session.

**Table 6: Patterns of cocaine use of REU, 2003-2011**

<b>Cocaine</b>	2003 N=100	2004 N=100	2005 N=100	2006 N=100	2007 N=100	2008 N=58	2009 N=100	2010 N=100	<b>2011 N=28</b>
Ever used (%)	44	36	57	55	56	66	52	49	<b>82</b>
Used last six months (%)	17	16	35	29	27	40	24	26	<b>32</b>
<b>Of those who had used in preceding 6 months</b>									
Mean days used last 6 months	3	4	3	2	6	3	11	11	<b>4</b>
<b>Median quantities used (grams)</b>									
Typical (range)	0.5 (0.1-2.5)	0.25 (0.1-0.8)	0.5 (0.1-1.8)	0.4 (0.1-4.0)	1.0 (0.1-3.5)	0.5 (0.5-1)	0.5 (0.3-2)	0.5 (0.5-1)	<b>1.0 (0.5-1)</b>
Heavy (range)	0.5 (0.1-2.5)	0.5 (0.1-6.3)	0.6 (0.1-6.5)	0.5 (0.1-6)	1.0 (0.1-5)	0.5 (0.5-1)	0.5 (0.3-5)	1.0 (0.5-3.6)	<b>1.0 (0.5-2)</b>

Source: WA PDI/EDRS REU interviews, 2003-2011

While most KE agreed that use of cocaine in WA remained relatively uncommon, two believed that its use was becoming slightly more widespread. Of these, a KE from the crowd control industry observed that while they used to experience pub and nightclub patrons under the influence of cocaine “*every once in a while*” it was now a regular occurrence “*every weekend*”, especially amongst patrons from the business community.

#### **4.4.1. Cocaine use in the general population**

Findings from the 2010 NDSHS show recent cocaine use amongst Western Australians aged 12 and older to be equal to the national average of 2.3% (AIHW, 2011a).

#### **4.5. Ketamine use**

Ketamine is a rapid acting, dissociative anaesthetic that is used in veterinary surgery and less commonly in human surgery. Ketamine produces a dissociative state in the user, commonly eliciting an out-of-body experience. Ketamine is also known as ‘k’, ‘special k’ or ‘vitamin k’.

In 2011, 18% (n=5) of respondents reported lifetime use of ketamine and no respondents reported use in the last six months.

#### **4.6. GHB use**

In 2011, 14% (n=4) of respondents reported lifetime use of GHB and no respondents reported use in the last six months.

#### **4.7. LSD use**

Lysergic acid diethylamide is commonly known as LSD, ‘trips’ or ‘acid’, which became popular in the 1960s. It is a powerful hallucinogen which can produce significant changes in perception, mood and thought. LSD is usually sold in perforated sheet form (ACC, 2007). Small paper squares (‘tabs’) are detached from these sheets and usually decorated with designs which can often be culturally specific to the user group. However, there was a small number of participants reporting purchasing LSD in a liquid form.

As evident from Table 7, lifetime use of LSD was reported by 71% (n=20) of the 2011 sample. Recent use of LSD was reported by 36% (n=10). The average number of days LSD was used during this period was six days in 2011. The median number of days LSD was used in the preceding six months was 3.5 days (range=1-30) in 2011.

The median amount of LSD used in a typical session was one tab. The median amount used in a heavy session was approximately 1.75 tabs in 2011. All REU who had used LSD in the last six months nominated swallowing (100%, n=10) and no other routes of administration were reported in 2011.

**Table 7: Patterns of LSD use of REU, 2003-2011**

<b>LSD</b>	2003 N=100	2004 N=100	2005 N=100	2006 N=100	2007 N=100	2008 N=58	2009 N=100	2010 N=100	<b>2011 N=28</b>
Ever used (%)	62	50	71	67	49	47	69	48	<b>71</b>
Used last six months (%)	22	11	35	25	23	21	31	35	<b>36</b>
<b>Of those who had used in the preceding 6 months</b>									
Mean days used last 6 months	3	3	5	3	5	8	6	5	<b>6</b>
<b>Median quantities used (tabs)</b>									
Typical (range)	1.0 (0.5-3)	1.0 (0.33-3)	1.3 (0.5-3)	1.0 (0.25-2)	1.0 (0.25-4)	1.0 (0.50-2)	1.0 (1-2.5)	1.0 (1-2)	<b>1.0 (0.50-2)</b>
Heavy (range)	1.0 (0.25-7)	1.5 (0.33-8)	2.1 (0.5-9)	1.0 (0.25-3)	1.0 (0.25-5)	1.0 (0.50-2)	1.75 (1-7)	1.5 (1-5)	<b>1.75 (0.5-3)</b>

**Source: WA PDI/EDRS REU interviews, 2003-2011**

\* Significant at alpha level 0.05

There were two KE who both commented that use of LSD appeared to be becoming more common again.

**4.8. Cannabis use**

As shown in Table 8, the entire sample of REU in 2011 reported lifetime use of cannabis and 86% (n=24) reported use of cannabis in the previous six months. The average number of days cannabis was used was approximately 113 days. In 2011, nine respondents reported daily use of cannabis.

**Table 8: Patterns of cannabis use of REU, 2003-2011**

<b>Cannabis</b>	<b>2003 N=100</b>	<b>2004 N=100</b>	<b>2005 N=100</b>	<b>2006 N=100</b>	<b>2007 N=100</b>	<b>2008 N=58</b>	<b>2009 N=100</b>	<b>2010 N=100</b>	<b>2011 N=28</b>
Ever used %	99	97	99	100	96	100	99	99	<b>100</b>
Used last six months %	91	85	83	86	80	85	85	81	<b>86</b>
<b>Of those who had used in preceding 6 months</b>									
Mean days used last 6 months	61	69	85	77	75	49	81	60	<b>113</b>

**Source: WA PDI/EDRS REU interviews, 2003-2011**

Among current REU, the median age of first use for cannabis was approximately 14 years (range=11-28). The greatest proportion of those who had used cannabis in the last six months reported smoking (96%, n=23) and swallowing was reported by 33% (n=8). In 2011, respondents were asked how much cannabis they consumed during their last session. Of those who reported on ‘cones’ (n=17), the median was three cones (range=1-12). Of those who reported on ‘joints’ (n=5), the median was one joint (range=0.5-6).

In 2011, cannabis and ecstasy were the most nominated drugs of choice, nominated by 26% of the sample. Of the 68% of the sample who reported using other drugs with ecstasy, cannabis was reported in this context by 53% (n=10). Among those reporting use of other drugs during ‘comedown’ from ecstasy (54%), 73% (n=11) reported using cannabis in this context.

There were three KE who commented on use of cannabis. The first, a youth worker, described its use as stable but widespread and easily available. The second KE from the law enforcement sector, also believed use to be stable, but noted that use was trending towards hydroponic cannabis over bush. The third from the crowd control industry believed use amongst within the clubbing scene was declining.

#### **4.8.1. Cannabis use in the general population**

Findings from the 2010 NDSHS indicate that recent use of cannabis in Western Australians aged 12 years or older to be 13% compared with the national average of 10%. Only the Northern Territory with approximately 16% reporting recent cannabis use was higher. (AIHW, 2011a).



## 4.9. Other drugs used

### 4.9.1. Alcohol

Both lifetime (100%, n=28) and recent (93%, n=26) use of alcohol were reported by almost the entire REU sample (see Table 2). The median age of first use of alcohol was 14 years old (as found in 2006, 2007, 2008 and 2009), with a range from three to 18 years. Of those who used alcohol in the six months preceding interview, use was on a median of 52 days (range=2-180), which equates to twice a week. Daily consumption of alcohol was reported by 14% (n=4) of respondents.

Several KE made comments concerning current patterns of alcohol consumption. Of these, a clinical nurse observed that “*alcohol remains the biggest drug-related problem due to anti-social nightlife culture, bashings, youth drinking, street drinking and chronic health problems*”. A youth worker also noted issues caused by alcohol due to its use being common and alcohol’s ready availability. A KE from the crowd control industry observed that binge drinking had become a major issue manifesting as “*More people drinking since disruptions to the supply of ecstasy. More people throwing up, passing out, fights – situations not seen five years ago ... Some people don’t understand responsible server laws and get physical if asked to leave. Younger people seem to be more accepting of the situation however*”. This KE also added that campaigns against binge drinking did not appear to be having much effect and that laws such as lock-outs were “*causing grief*”. Two KE also pointed to the high costs of going out as driving the phenomenon of “pre-loading” (i.e. binge drinking prior to going out) and attempts to smuggle alcohol into licenced venues.

### 4.9.2. Tobacco

Lifetime use of tobacco was reported by 89% (n=25) of the current sample. Use of tobacco in the previous six months was reported by 89% (n=25) of the current sample. Of those reporting lifetime use of tobacco, the median age of first use was 15 years (range=7-21). Among those that used tobacco in the last six months, the median number of days used was 180 (range=4-180). In 2011, 54% (n=15) of those who used tobacco in the last six months were daily smokers.

### 4.9.3. MDA

MDA is part of the phenethylamine family and, like ecstasy, is classed as a stimulant hallucinogen. A lifetime history of use was reported by 25% (n=7) of the 2011 WA sample. Recent use was reported by 14% (n=4). The mean number of days of MDA use was one. Asked about recent routes of administration, two reported swallowing and two reported snorting. All four had used both these routes in the past. Respondents were not asked to report on price, purity and availability information for MDA due to consistently low numbers of users in the sample.

### 4.9.4. Pharmaceutical stimulants

Pharmaceutical stimulants have been included as a separate drug class since the 2005 survey. This category includes dexamphetamine and methylphenidate drugs, such as Ritalin and Attenta. Since 2007, licit use (i.e., prescribed) has been distinguished from illicit use. In 2011, lifetime use of any pharmaceutical stimulant was reported by 89% (n=25). All of this use was illicit with no respondents indicating that they had ever had a valid prescription for these medications. The median age for first illicit use was 17 years. Recent use of illicit pharmaceutical stimulants was reported by 68% (n=19) of the WA sample in 2001. The most common route of administration for recent use was swallowing (64%, n=18) followed by snorting (29%, n=8). Typically one to 10 tablets were consumed with a median of four. On

occasions of heavy use, however, this ranged from two to 20 tablets with a median of eight. Reports of other routes of administration were uncommon. The median days used in the last six months was 11 (range=1-100).

#### **4.9.5. Benzodiazepines**

Use of benzodiazepines has been divided into licit and illicit use since 2009. Lifetime use of any benzodiazepine was reported by 61% (n=17). Of these respondents, 82% (n=14) reported lifetime illicit use of benzodiazepines and 29% (n=5) reported lifetime licit use of benzodiazepines. The median age of first licit use was 28 years and illicit use was 18 years.

Recent use of any form of benzodiazepines in the last six months was reported by 39% (n=11) respondents. Licit use in the last six months was reported by 11% (n=3) and recent illicit use by 29% (n=8). All three recent users of licit benzodiazepines reported consumption on a daily basis. Days of use of illicit benzodiazepines ranged from one to seven, with a median of three days.

#### **4.9.6. Anti-depressants**

Use of anti-depressants was also divided into licit and illicit use. Lifetime use of any anti-depressant was reported by 32% (n=9). Lifetime licit use of anti-depressants was reported by 21% (n=6) and lifetime use of illicit antidepressants by 11% (n=3). One respondent reported both licit and illicit use. The median age of first licit use was 25 years (range=15-34) and the median age of first illicit use was 18 years (range=17-21).

Recent use of licit antidepressants in the last six months was reported by only one respondent and there were no reports of recent illicit use.

#### **4.9.7. Inhalants**

REU reported on use of the inhalants amyl nitrate and nitrous oxide. Lifetime use of amyl nitrate was reported by 29% (n=8) of the sample in 2011. The median age of first use of amyl nitrate among current REU was 18 years (range=13-30 years). Use in the last six months was reported by 7% (n=2) of the current sample. Amyl nitrate was used a median 18 days (range=15-20 days) during this period.

Lifetime use of nitrous oxide was reported by 50% (n=14) of the sample in 2011. The median age of first use was 18 years (range=12-22 years). Prevalence of use in the last six months was 18% (n=5). The median number of days used during this period was two days (range=1-15 days). The median amount used in a typical session was 20 bulbs (range=2-250 bulbs) and the median amount used in a heavy session was 40 bulbs (range=2-250 bulbs).

#### **4.9.8. Heroin and other opiates**

Although there superficially appears to have been substantial changes in the use and injection of heroin and other opiates since the 2010 survey, it is highly unlikely that these changes reflect actual trends within the REU community. Rather, this is more likely to be evidence that the 2011 WA EDRS sample contained a disproportionate number of regular IDU who were not the main target demographic of the survey. Given the very small sample size of the WA ERDS 2011 survey (N=28), the data provided by these participants has likely had a disproportionate weighting on the findings of the survey and therefore these findings be interpreted with considerable caution.

##### *Heroin*

Among current REU, 25% (n=7) reported a lifetime use of heroin compared to 4% in 2010. The median age of first use was 22 years (range=16-30 years). Of these, there were, 86%

(n=6) who reported ever injecting, and 43% (n=3) who reported ever smoking the drug. Two respondents reported having ever swallowed heroin and one reported having ever snorted it.

Use of heroin in the last six months was reported by 11% (n=3) of respondents, compared to 3% (n=3) in 2010. The median number of days heroin was used by these three respondents was 48 days (range=3-80) with injecting the only route of administration reported.

#### *Methadone and buprenorphine*

Lifetime use of methadone was reported by just 7% (n=2) of respondents compared to 3% (n=3) in 2010. The median age of first use of methadone was 25 years (range=18-30). Among those reporting ever using methadone, one reported swallowing and one respondent reported injecting. There was no reported use of methadone in the last six months.

Lifetime use of buprenorphine was reported by 11% (n=3) compared with 2% (n=2) in 2010. The median age of first use of buprenorphine was 33 years (range=25-38). All three respondents with a lifetime history of use reported use of buprenorphine in the last six months with a median of 15 days of use (range=2-180). One respondent reported having ever injected buprenorphine and had also injected it in the last six months.

#### *Other opiates: illicit and licit*

Use of 'other opiates' was divided into illicit and licit use for the first time in the 2009 EDRS. This drug class includes morphine, pethidine, oxycodone and various preparations containing codeine. Lifetime use of any other opiates in 2011 was reported by 43% (n=12), compared with 27% (n=27) of respondents in 2010. Lifetime use of licit opioids was reported by 14% (n=4) and lifetime illicit use by 36% (n=10). The median age of first use was 30 years (range=21-38) for licit use and 21 years for illicit use (range=17-35).

Recent use of any other opioids in 2011 was reported by 14% (n=4) compared with 10% (n=10) in 2010. Recent use of licit opioids was reported by just one respondent, who had orally consumed 30 mg of MS Contin on a daily basis (i.e. 180 days) for the previous six months. Recent illicit use of other opioids was reported by 14% (n=4) of respondents with two reports of having used just once in the last six months, and isolated reports of having used over 12 days and 30 days. With regards to route of administration, three respondents reported swallowing, two reported injecting and one reported snorting these substances. The forms of other opioids illicitly used in the last six months included three mentions of Oxycontin, two of MS Contin (one of which was specified as being 60 mg), and one of Kapanol.

#### *Over-the-counter codeine*

For the first time in 2009, REU were questioned about their use of over-the-counter (OTC) codeine. Lifetime use of OTC codeine was reported by 57% (n=16) of respondents in 2011, The median age of first use was 17 years (range=10-39). From the current sample, 43% (n=12) reported use of OTC codeine in the six months preceding interview. Although the majority of recent use was via oral means (92%, n=11), there were 17% (n=2) of recent users who reported snorting these preparations. There were three respondents who reported using OTC codeine for use other than to relieve pain compared with just one in 2010.

#### **4.9.9. Mushrooms**

Lifetime use of psilocybin mushrooms was reported by 79% (n=22) of the WA 2011 REU sample. The median age of first use was 18 years (range=15-32). Rates of use in the last six months were reported by 11% (n=3). Amongst those who reported recent use there were two reports of use on two days in the last six months and one report of use on just one day. All respondents reported swallowing as the only route of administration.

#### **4.9.10. Over-the-counter stimulants**

For the first time in 2009, REU were questioned about their use of OTC stimulants for recreational use. This drug class includes cold and flu medication containing pseudoephedrine. Lifetime use was reported by 43% (n=12). The median age of first use was 16 years (range=6-25). From the current sample, 11% (n=3) reported use of OTC stimulants in the last six months. The median number of days used in the last six months was seven days (range=2-7). Among the current REU reporting lifetime and recent use, oral use was the only reported route of administration.

#### **4.9.11. Steroids**

For the first time in 2010, REU were asked to report on steroid use. No respondents in the 2011 WA EDRS reported ever having ever used steroids.

### **4.10. Emerging psychoactive substance (EPS) use**

#### **4.10.1. Psychedelic phenethylamines**

##### *2C-I, 2C-B and 2C-E*

2C-I (2,5-dimethoxy-4-iodophenethylamine) is a psychedelic drug with stimulant effects. A standard oral dose of 2C-I is between 10 mg and 25 mg. Recent reports suggest that 2C-I is slightly more potent than its closely related cousin 2C-B (see below). Only one respondent in the WA 2011 REU sample reported having ever used 2C-I and there were no reports of recent use.

Closely related is the psychedelic phenethylamine 2C-B (2,5-dimethoxy-4-bromophenethylamine, sometimes known as "Nexus"), the dosage range is listed as between 16 mg and 24 mg. 2C-B is sold as a white powder sometimes pressed in tablets or gel caps. The drug is usually taken orally, but can also be snorted. Lifetime use of 2C-B was reported by 14% (n=4) of the sample. Just 7% (n=2) of the WA REU sample reported having consumed 2C-B in the past six months. Use was sporadic with one respondent reporting use on one day and one reporting use on three days in the past six months. All use was reported to be by oral administration, and all sources of purchase were attributed to a *friend*.

2C-E (2,5-dimethoxy-4-ethylphenethylamine) is also in this class of psychedelic drugs. It is commonly active in the 10 mg to 20 mg range, taken orally, and highly dose-sensitive. Snorting requires a much lower dose, typically not exceeding 5 mg, but this method of consumption elicits a noticeably painful or uncomfortable sensation in the nasal cavity for 10 minutes or so. Just one respondent reported lifetime use of 2C-E in the WA 2011 REU sample, and this same respondent indicated that it had been taken on two days in the last six months. The drug was reportedly snorted and obtained from a *dealer*.

##### *Other 2C analogues*

Lifetime use of these was reported by 7% (n=2) of respondents. Substances reported were 2C-B-Fly and 2C-T7. Recent use was reported by just one respondent with use on just one day by oral administration. In the absence of other supporting data, this finding should probably be interpreted with caution.

##### *DOI (death on impact)*

DOI ('death on impact'; 2,5-dimethoxy-4-iodoamphetamine) is also a psychedelic phenethylamine. It requires only very small dosages to produce full effects. It is uncommon as a substance for human ingestion but common in research. It has been found on blotter

and may be sold as LSD (Erowid: <http://www.erowid.org/chemicals/doi/doi.shtml>). There was no use of DOI reported in this sample.

### *Mescaline*

Mescaline is a psychoactive phenethylamine chemical which comes from the peyote cactus. It has hallucinogenic properties. Lifetime use was reported by 14% (n=4). Recent use was reported by 4% (n=1) of participants who had used on just one day in the last six months. Swallowing was the only reported route of administration.

### *Methylone*

Lifetime history of methylone was reported by 11% (n=3) of the 2011 sample and recent use by just one respondent who reported having snorted it on just one occasion in the last six months. The reported source was a dealer. Erowid.org notes that "*Methylone is a synthetic empathogen. It is relatively uncommon and has only a short history of human use*".

## **4.10.2. Psychedelic tryptamines**

### *5MEO-DMT*

5MEO-DMT (5-methoxy-dimethyltryptamine) is a psychedelic tryptamine. Only one respondent reported lifetime use of 5MEO-DMT and there were no reports of use in the last six months.

### *DMT*

DMT (chemical name dimethyltryptamine) is a hallucinogenic drug in the tryptamine family, which is similar to LSD though its effects are said to be more powerful. It can be consumed by various routes of administration and the effects rarely last more than two hours. Lifetime use of DMT was reported by 40% (n=8) of the sample and recent use by 25% (n=7). The main route of administration reported by users was smoking reported by five respondents, followed by oral administration which was reported by two. Median days used was three (range=1-7). The only reported source of DMT was from *friends*.

## **4.10.3. Stimulant emerging psychoactive substances**

### *Mephedrone*

Lifetime use of mephedrone ("Meow Meow") was reported by 18% (n=5) of the 2011 sample. Recent use was reported by 14% (n=4). Swallowing and snorting were each reported as the main routes of administration by two respondents. Median days use in the last six months was four (range=1-5). The last source of mephedrone was reported as *friends* by two respondents, a *dealer* by one, and one reported having purchased the drug on the internet.

### *BZP*

BZP (1-benzylpiperazine) is a stimulant which gained popularity in some countries in the early 2000s as a legal alternative to amphetamine, methamphetamine, and MDMA. Lifetime use of BZP was reported by 7% (n=2) of the sample. These same two individuals also reported use in the last six months. Both reported oral consumption as the only route of administration. Median days of use was 12 (range=4-20). Both respondents indicated that their most recent source of BZP was from a *dealer*.

### *Ivory wave (MDPV)*

There was no reported use of ivory wave in WA.

#### **4.10.4. Naturally occurring substances**

##### *Datura/angel's trumpet*

There are many different species in the *Datura* genus. Probably the two most well-known are the devil's weed (*Datura innoxia*) and the thornapple or jimson weed (*Datura stramonium*). The plant's effects make the user feel drowsy, drunk-like and detached from things around them. They can also bring on hallucinations. Doses are difficult to judge and can easily cause unconsciousness and death. Although 7% (n=2) of respondents reported lifetime use of datura, no participants reported recent use.

##### *Salvia Divinorum*

*Salvia Divinorum* (Diviner's Sage) is a herb sometimes used as an alternative to cannabis or occasionally as an ingredient in herbal smoking blends intended to pad out users' cannabis supply. It was first asked about in the EDRS survey in 2011. Lifetime use of salvia was reported by 18% (n=5) and recent use by 11% (n=3), all of whom reported smoking the drug. Use was sporadic with all three respondents only reporting use on just one or two days in the last six months. Two respondents reported having obtained salvia from *friends* and one reported having purchased it over the internet.

#### **4.10.5. Other drugs**

##### *DXM*

Dextromethorphan is a semi synthetic opiate derivative which is legally available over-the-counter in the United States. It is most commonly found in some cough suppressants. It is almost always used orally, although pure DXM powder is occasionally snorted. The effects of DXM generally fall into the category of dissociatives, along with ketamine, PCP, and nitrous. As with many psychoactive substances, dosages of DXM vary greatly, depending on the individual and the desired level of effects. Recreational doses range from 100 mg to 1,200 mg or more. Lifetime use of DXM was reported by 21% (n=6) of respondents and recent use was reported by 4% (n=1) on three occasions during the last six months. Route of administration was oral. The last reported source was from a *dealer*.

##### *PMA*

PMA has been used as a recreational psychoactive drug, primarily in the 1970s, and in Australia since late 1994. More recently, it has been sold as MDA or MDMA (ecstasy). Pure PMA is a white powder, but street products can also be beige, pink or yellowish. Today it is usually made into pressed pills.

The effects of PMA include increase in energy, visual distortions and a general change in consciousness. Symptoms after ingestion can be pupil dilation, erratic eye movements, muscles spasms, increase in body temperature, nausea and vomiting. In some cases ingestion can lead to convulsions, coma and death. PMA has caused a number of deaths in Canada and Australia and has been implicated in two recent deaths in Chicago, United States. Most PMA deaths have been in users who have taken tablets sold as 'ecstasy'.

No recent use of PMA was reported in this sample and just one respondent reported having ever used it.

#### **4.10.6. Synthetic cannabinoids**

Synthetic cannabinoids represent an emerging issue in WA. Typically, these appear as finely chopped herbal matter suitable for smoking in the same manner as cannabis, and that has been sprayed with the synthetic cannabinoid JWH-018 or one of its various analogues. They

have been marketed around the world under various brandings including “Spice”, “K2” and “Kronic”, the latter being the dominant brand sold in WA in early 2011, prior to its prohibition by the WA State Government in June. “Kronic” was primarily sold in head shops, adult shops and over the internet and attained a degree of popularity amongst drug users in part due to its relative ease of availability compared to cannabis, and in part because, up until late 2011, it was not readily detectable in standard workplace drug testing. Different blends of various potencies were available.

One KE from the WA ADIS mentioned that there had been a lot of calls concerning “Kronic” prior to its being banned; however, most of these calls were from parents of users rather than the users themselves. A second KE employed in a clinical role in WA hospitals observed that “Kronic” seems to “*agitate hallucinations*”.

A KE from the law enforcement sector made the observation that “*synthetic cannabinoids are changing so quickly and their use is difficult to detect in terms of time, effort and expense*”.

Lifetime and recent use of any synthetic cannabinoid was reported by 32% (n=9). Lifetime and recent use of “K2” or “Spice” was reported by one respondent who reported smoking it on just one occasion. Lifetime and recent use of other synthetic cannabinoids was reported by 32% (n=9) of the sample. The brand used was reported by five of these respondents, all of whom mentioned “Kronic”. Median days used was two (range=1-18) with smoking the only reported route of administration.

#### Illustration 1: Typical “Kronic” packaging available in Perth, WA circa early 2011



Source: National Drug Research Institute

*Miscellaneous other drugs*

Other drugs enquired about included LSA, MPTP and melanotan. Apart from one individual reporting having used LSA at some point in the past, there were no lifetime incidences and no recent use of any of these substances in the 2011 WA EDRS sample.

A complete breakdown of emerging drugs used amongst Perth REU is displayed in Table 9.

**Table 9: Lifetime and recent use of emerging psychoactive substances, WA 2010-2011**

		2010 N=100	2011 N=28
2C-I	ever used (%)	9	4
	used last 6 months (%)	1	0
2C-B	ever used (%)	5	14
	used last 6 months (%)	2	7
2C-E	ever used (%)	0	4
	used last 6 months (%)	0	4
DOI	ever used (%)	0	0
	used last 6 months (%)	0	0
Mescaline	ever used (%)	7	14
	used last 6 months (%)	4	4
5MEO-DMT	ever used (%)	4	4
	used last 6 months (%)	1	0
DMT	ever used (%)	13	40
	used last 6 months (%)	8	25
Mephedrone	ever used (%)	19	18
	used last 6 months (%)	16	14
BZP	ever used (%)	37	7
	used last 6 months (%)	25	7
Ivory Wave	ever used (%)	0	0
	used last 6 months (%)	0	0
Datura	ever used (%)	4	7
	used last 6 months (%)	0	0
Salvia	ever used (%)	-	18
	used last 6 months (%)	-	11
DXM	ever used (%)	7	21
	used last 6 months (%)	3	4
PMA	ever used (%)	7	4
	used last 6 months (%)	0	0
Synthetic cannabinoids	Ever used (%)	-	32
	Used last 6 months (%)	-	32

**Source: EDRS REU interviews, 2010-2011**

Both KE from the law enforcement sector mentioned emerging substances as one of the biggest current concerns, in part because the long-term effects of consuming such substances are largely unknown. It was also noted that these drugs are commonly purchased over the internet which was more difficult to monitor.



#### 4.10.7. Summary of drug consumption patterns

- Mean days of ecstasy use in the last six months was 17 days, with 29% (n=8) using weekly or more. Swallowing was the main route of administration. Using other drugs in conjunction with, or while coming down from, ecstasy was commonplace.
- Just 26% (n=7) described ecstasy as their favourite drug, the lowest figure recorded since the WA EDRS commenced in 2003.
- Having ever injected ecstasy was reported by 21% (n=6) which was the highest figure ever recorded in the WA EDRS, and suggests that the sample may have been skewed by recruiting an abnormally large number of regular IDU. This finding is unlikely to be reflective of actual trends amongst REU.
- Methamphetamine powder had recently been used by 44% (n=12) for a mean of 44 days and was most commonly snorted. Base methamphetamine had been recently used by 11% (n=3) and used on a median of six days. Crystal methamphetamine had been recently used by 46% (n=13) for a mean of 19 days and was most commonly smoked.
- Although there appeared to be a substantial increase in use of crystal methamphetamine since the previous year, it cannot be determined if this is a reflection of REU seeking alternative drugs in the absence of high quality ecstasy, or if it is due to abnormally high numbers of IDU skewing the sample. As such, this data should be interpreted with caution.
- Cocaine had recently been used by 32% (n=9) on a mean number of four days in the past six months.
- LSD had recently been used by 36% (n=10) for a mean of six days in the proceeding six months.
- Although small numbers had used ketamine and GHB during their lifetime, there were no reports of recent use of either drug.
- Cannabis had recently been used by 86% (n=24) of the sample for a mean of 113 days during the last six months. Smoking remained the most common route of administration.
- The entire sample of REU in 2010 reported lifetime use of alcohol (100%, n=28) and 93% (n=26) reported recent use. In the last six months, alcohol was used a median of 52 days, which equates to twice a week.
- Both lifetime and recent use of tobacco was reported by 89% (n=25) of the sample.
- Recent use of illicitly obtained pharmaceutical stimulants was reported by 68% (n=19).
- Recent illicit use of benzodiazepines was reported by 29% (n=8). Median days of use was of three days.
- Illicit use of benzodiazepines in the last six months was reported by 29% (n=8) with median days of use being three days.
- Recent use of amyl nitrate was reported by 7% with a median of 18 days of use, and recent use of nitrous oxide by 18% (n=5) with a median of two days.
- Recent use of psilocybin mushrooms was reported by 11% (n=3). Days of use ranged from one to two days in the past six months.
- There was an apparent increase in the reported use of heroin. However, this is most likely the result of the 2011 sample being skewed by the recruitment of an unusually large number of regular IDU and is unlikely to reflect actual trends amongst REU. As a result, all data concerning the use of heroin and other opiates should be interpreted with caution.
- Recent use of DMT was reported by 25% (n=7), mephedrone by 14% (n=4), and salvia by 11% (n=3). Very small numbers of respondents reported recent use of 2C-B, 2C-E, mescaline, BZP and DXM.
- Synthetic cannabinoids such as “Kronic” were an emerging issue in WA during the first six months of 2011 as they were elsewhere in Australia. Their use was reported by 32% (n=9) of the sample. These substances were prohibited by the WA government in June.

## **5. DRUG MARKET: PRICE, PURITY, AVAILABILITY and SUPPLY**

### **5.1. Ecstasy**

#### **5.1.1. Price**

In 2011, 25 of all 28 respondents reported on the price of ecstasy tablets in Perth. Median price per tablet and perceived price change across data collections in WA are shown in Table 10. In 2011, the median price of a tablet was \$30 (range=\$15-\$40). Bulk purchases tended to be cheaper with median prices of \$30 per tablet for 10 tablets, \$27 per 20 tablets, \$25 per 50 tablets and \$15 per 100 tablets. There were no reports of purchasing ecstasy in powder or capsule form.

**Table 10: Price of ecstasy tablets purchased by REU and price variations, 2003-2010**

	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Median price per tablet (range)</b>	\$40 (25-50)	\$50 (25-60)	\$40 (30-50)	\$40 (25-50)	\$40 (30-50)	\$40 (20-45)	\$35 (17-50)	\$35 (20-50)	<b>\$30 (15-40)</b>
<b>Price change:</b>									
Increased (%)	10	4	5	6	11	17	9	18	<b>4</b>
Stable (%)	68	62	66	61	59	48	52	56	<b>57</b>
Decreased (%)	12	19	22	19	16	19	25	18	<b>14</b>
Fluctuated (%)	6	13	7	12	9	10	9	5	<b>11</b>
Don't know (%)	4	2	-	2	5	5	5	3	<b>14</b>

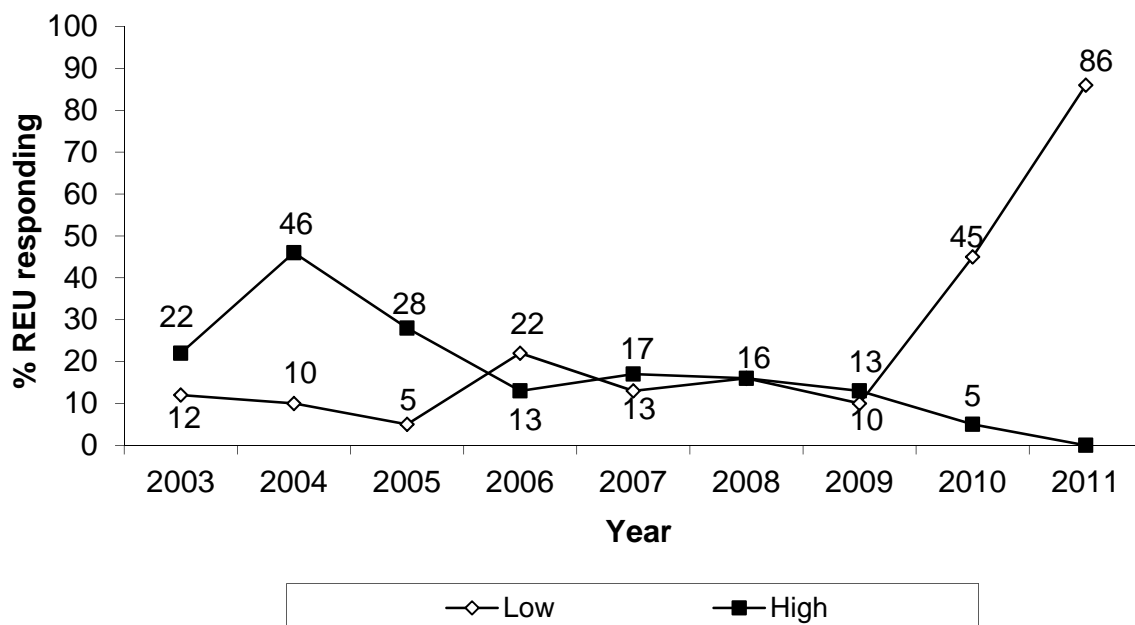
**Source: WA PDI/EDRS REU interviews, 2003-2011**

Data from the ACC reports a single tab or capsule of MDMA during 2009/10 to cost between \$13 and \$45. If purchased in quantities of more than 1,000 tablets the reported price range was \$13 to \$22 (ACC, 2011).

### 5.1.2. Purity

As shown in Figure 2, 86% (n=24) of respondents in 2011 rated the current purity of ecstasy as low, the highest proportion observed since commencement of the WA EDRS survey in 2003. Medium and fluctuating purity were both nominated by 7% (n=2) and no respondents said it was currently high. This represents the most negative user perceptions of ecstasy purity recorded since the WA EDRS commenced in 2003.

**Figure 2: User reports of current ecstasy purity, 2003-2011**



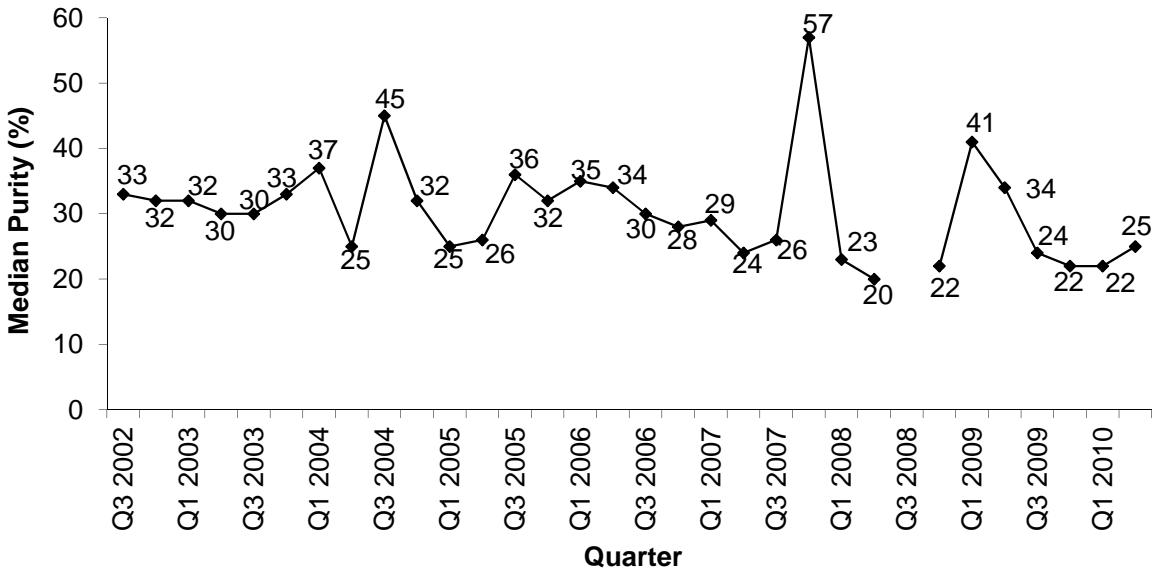
Source: WA PDI/EDRS REU interviews, 2003-2010

REU were asked about changes in purity over the preceding six months. In 2011 the majority of those responding (57%, n=16) believed that the purity of ecstasy in WA had been decreasing. A further 21% (n=6) thought it to be stable. That it was increasing or fluctuating were both nominated by 7% (n=2). There was also 7% (n=2) who didn't know.

A number of KE commented on the purity of “ecstasy”, a clinical nurse noting that “many people they had seen thought they had taken ecstasy, but were exhibiting effects and toxic reactions more usually associated with PMA. The ecstasy appears to have dried up, and we’re not seeing it at all, even over the festival season. There are toxic tablets around that are probably PMA”. A KE from the law enforcement sector observed that “ecstasy containing actual MDMA was rare, the chemicals involved more commonly being BZP, methamphetamine and ketamine. This is likely reflecting of the shortage of precursor chemicals need to manufacture MDMA”. A second law enforcement concurred noting “there is almost no MDMA around and pills are more usually BZP tablets. MDMA seizures have fallen by 80% and purity has dropped right off”. A KE from the crowd control industry observed that “the pills around actually contain things like ketamine or GHB, but these are not actually the drugs that users are seeking”.

Purity estimates by users are subjective perceptions and laboratory analyses of ecstasy seizures provide a more objective assessment. However, it must be noted that seizures analysed do not represent a random or comprehensive sample of all seizures made. Figure 3 shows the median purity of phenethylamine seizures in WA according to data provided by the WA State Police and the ACC since July 2002 (figures from July to September 2008 were not available). Purity levels during 2009/10 ranged between 22% and 25%. The only time a figure less than 22% has been recorded was during the second quarter of 2008. Assuming that reports of purity from user perceptions are reflected in formal analysis of seizures during the first two quarters of 2011, then it is likely that ACC data from that period will report still lower levels of purity.

**Figure 3: Median purity of phenethylamines seizures in WA by quarter, July 2002 to June 2010**



Source: ACC

**5.1.3. Availability**

All respondents commented on the availability of ecstasy in 2011 and responses across survey years are presented in Table 11. In 2011, just 14% (n=4) of respondents rated the current availability of ecstasy as very easy. Combined responses of very easy and easy were reported by 64%, the lowest combined figure recorded since commencement of the EDRS in WA in 2003. The most common response for the current availability of ecstasy remained easy by 50% (n=14) of the current sample. In 2011 64% (n=18) rated availability over the last six months as stable.

**Table 11: REU reports of ecstasy availability in the preceding six months, 2003-2011**

	2003 N=100	2004 N=100	2005 N=100	2006 N=100	2007 n=99	2008 N=58	2009 N=98	2010 N=100	2011 N=28
<b>Current availability</b>									
Very easy (%)	61	54	62	47	30	52	61	22	14
Easy (%)	26	38	35	42	59	41	35	58	50
<b>Availability</b>									
Stable (%)	63	64	72	55	65	59	62	54	64
Easier (%)	16	15	16	17	10	24	20	7	4

**Source: WA PDI/EDRS REU interviews, 2003-2010**

Friends were once again the most frequently reported as the most common person from whom ecstasy was obtained from on the last purchase occasion, nominated by 61% (n=17) of the current sample. This was followed by reporting known dealers by 18% (n=5), acquaintances by 11% (n=3), workmates by 7% (n=2) and unknown dealers reported by 4% (n=1) as the last person to obtain ecstasy from. Consistent with the above, friend's home was the most commonly reported last location for scoring by 32% (n=9) followed by agreed public location by 18% (n=5) own home by 14% (n=4), live music event by 11% (n=3) and nightclubs by 7% (n=2). Individual respondents also mentioned pubs, raves etc and acquaintances' homes in this context.

As shown in Table 12, the median number of people ecstasy was purchased from in the preceding six months remained at three, as in the previous two years. A median of four tablets was purchased at a time in 2011. Reports of who REU purchased tablets for "self and others" remained the most common pattern of purchase with 50% (n=14) reporting this. Making one to six purchases of ecstasy in the last six months remained typical, reported by 48% (n=13) respondents. There were no reports of any respondents making 25 or more purchases.

**Table 12: Patterns of purchasing ecstasy, 2005-2011**

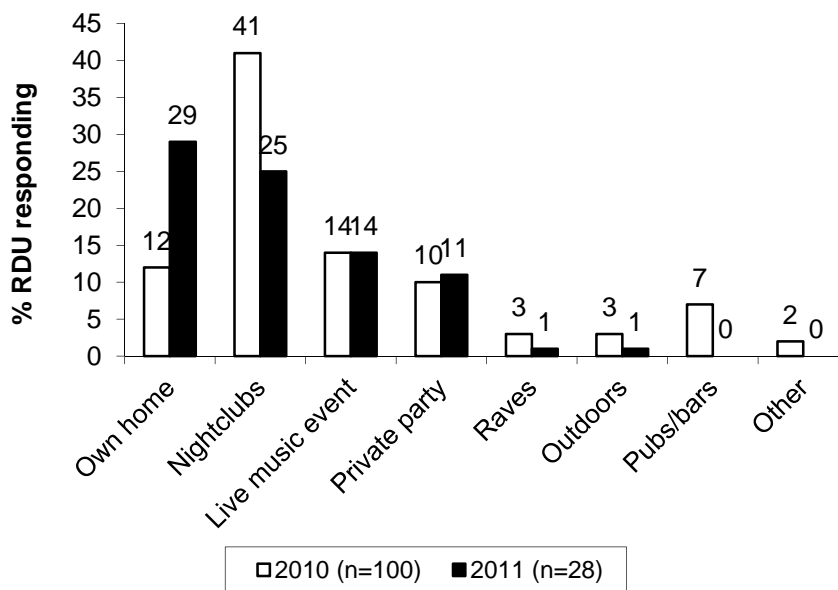
	2005 (N=100)	2006 (N=100)	2007 (n=98)	2008 (N=58)	2009 (N=100)	2010 (N=100)	2011 (N=28)
<b>Median no. of people purchased from</b>	4 (0-20)	3 (0-30)	3 (0-20)	4 (1-15)	3 (1-55)	3 (1-20)	3 (1-10)
<b>Median no. of ecstasy tablets purchased</b>	4 (1-100)	5 (1-100)	6 (1-100)	6 (1-100)	5 (1-100)	5 (1-100)	4 (1-100)
<b>Purchased for (%)</b>							
Self only	26	22	25	22	22	30	46
Self and others	71	77	70	78	75	69	50
Others only	1	-	-	-	3	1	-
Didn't buy ecstasy	-	1	5	-	-	-	4
<b>No. of times purchased in the last 6 months (%)</b>							
1-6	35	37	53	60	31	61	48
7-12	42	32	25	35	46	31	26
13-24	17	28	16	5	21	8	22
25 +	3	1	1	-	2	-	-
None	-	-	5	-	-	-	4

Source: WA PDI/EDRS REU interviews, 2005-2011

### 5.1.4. Last location of ecstasy use

Respondents were asked to report on the last location (where most time is spent under the influence) of most recent ecstasy use, as shown in Figure 4. Own home was reported by the as the most common last location of use for ecstasy by 29% (n=8) of the sample. This was followed by those nominating nightclubs by 25% (n=7), live music events by 14% (n=4) and private party by 11% (n=3). Individual respondents also mentioned raves etc. and outdoors.

Figure 4: Last location where most time was spent intoxicated by ecstasy by REU, WA 2010-2011



Source: EDRS REU interviews, 2010-2011

### 5.1.5. Summary of ecstasy trends

- The median price of ecstasy was \$30 a tablet.
- More than half the sample (57%, n=16) rated price as stable in the previous six months.
- User perceptions of the purity of ecstasy have continued to decline with 86% (n=24) describing purity as low and zero respondents describing it as high. The majority (57%, n=16) believed the purity of ecstasy in the last six months had been decreasing. This represents the most negative user perceptions about the quality of ecstasy since the EDRS commenced in WA in 2003. Police analysis of phentylamine seizures during 2009/10 also reported some of the lowest levels of purity recorded since 2002.
- Availability was reported as very easy or easy by 64% (n=18), indicating a continued decline in user perceptions of availability, and the lowest recorded figure since the EDRS commenced in WA. Availability of ecstasy was generally reported as stable over the previous six months.
- Friends remained the most commonly nominated most recent persons from whom ecstasy had been obtained.
- Ecstasy was purchased from a median of three people in the last six months, and a median of four tablets was obtained per occasion. It was most commonly purchased for self and others.
- The most common number of times ecstasy was reportedly bought in the last six months was one to six times.
- Own home was reported as the most common occasion for last use of ecstasy.



## 5.2. Methamphetamine

### 5.2.1. Price

Participants in the EDRS were asked about the cost of the various forms of methamphetamine (Table 13). For the most part, numbers of participants able to provide this information was extremely limited and necessitates that this data be interpreted with caution.

Data on the price of a point of speed or powder methamphetamine was provided by seven REU who reported a median price of \$100 (range=\$50-\$100). Information on the price of a gram of powder methamphetamine was provided by six REU with a reported median of \$800 (range=\$350-\$1,500).

Just four REU provided information on the price of a point of methamphetamine base – all reporting a median price of \$100. Information concerning the median price of a gram of base was given by three respondents reporting a median price of \$1,000 (range=\$600-\$1,500).

There were 10 respondents who reported on the price of a point of crystal methamphetamine, reporting a median of \$100 (range=\$50-\$150). Information about the price of a gram was provided by five REU who reported a median price of \$400 (range=\$75-\$1,500).

It should be noted that these extremes of prices for grams are not reflected in the 2011 WA IDRS report which is based on a larger sample (Rainsford & Lenton, 2012). This, in addition to the small numbers of REU responding, casts further doubt upon the accuracy of the EDRS price data for methamphetamines.

**Table 13: Price of various methamphetamine forms purchased by REU, 2003-2011**

Median price (\$)	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Speed</b>									
Point	50	50	50	50	50	50	50 <sup>^</sup>	50 <sup>^</sup>	100 <sup>^</sup>
Gram	200	300	300	300	350	100	275	300 <sup>^</sup>	800 <sup>^</sup>
<b>Base</b>									
Point	50	50	50	50	50	50	50 <sup>^</sup>	-	100 <sup>^</sup>
Gram	-	300	325	350	380	-	400 <sup>^</sup>	300 <sup>^</sup>	1000 <sup>^</sup>
<b>Crystal</b>									
Point	50	50	50	50	50	50	50 <sup>^</sup>	50 <sup>^</sup>	100
Gram	-	400	350	400	400	425	400 <sup>^</sup>	400 <sup>^</sup>	400 <sup>^</sup>

**Source: WA PDI/EDRS REU interviews, 2003-2011**

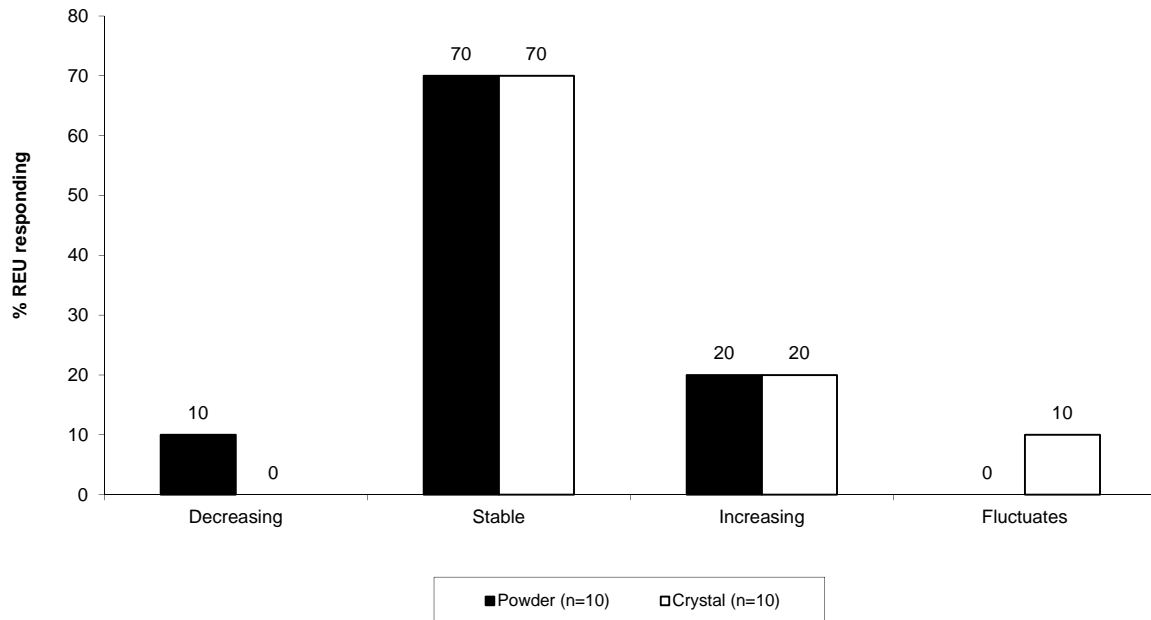
<sup>^</sup> Price reported by < 10 respondents

Participants were also asked about their perceptions of recent changes in the price of methamphetamine (see Figure 5). For all forms, the most commonly reported trend was that prices had remained stable which would seem to cast further doubt on the accuracy of the extremely high current prices reported. Results are not reported for base methamphetamine due to the small number of those who responded for this form (n=3).

One KE from the law enforcement sector commented on the price of crystal methamphetamine citing prices of \$50-\$100 per point and \$600-\$1,000 for a gram. The KE also noted that the price in WA tended to be higher than that seen in other Australian jurisdictions.

Data from the ACC reported that prices for a gram of methamphetamine regardless of form during 2009/10 ranged between \$400 and \$1,000; prices for an 8-ball ranged between \$1,200 and \$3,500; prices for an ounce ranged between \$6,500 and \$15,000; and prices for a kilogram ranged between \$160,000 and \$325,000 (ACC, 2011).

**Figure 5: Recent changes in price of various methamphetamine forms purchased by REU who commented, 2011**

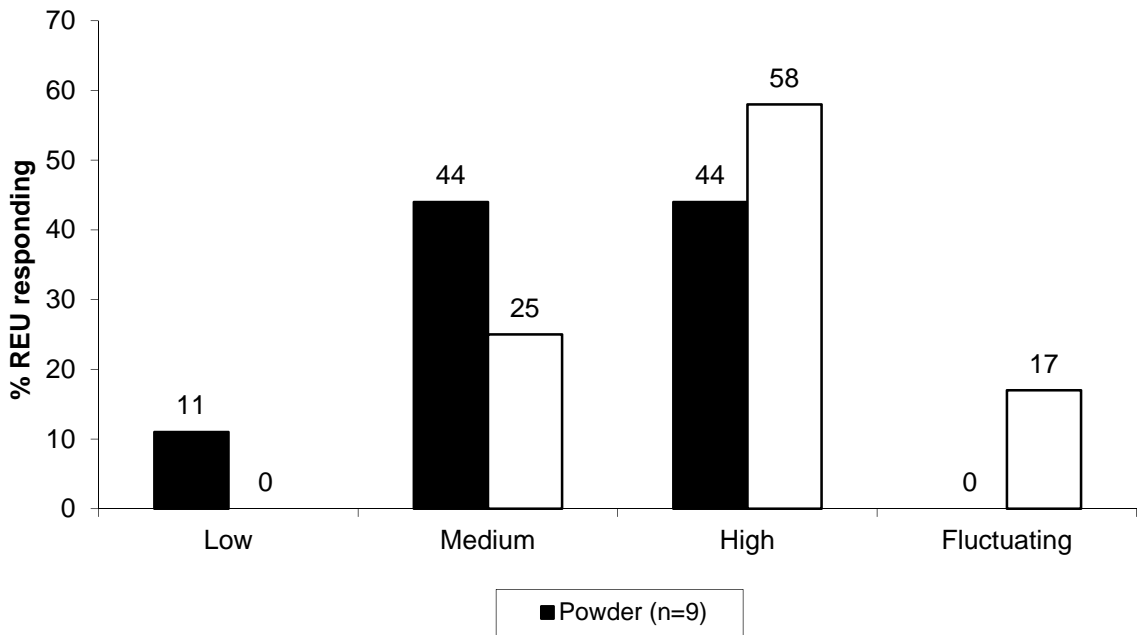


Source: WA EDRS REU interviews, 2011

### 5.2.2. Purity

Participants also commented on the current purity of methamphetamine (Figure 6) and perceived changes in purity over the preceding six months (Figure 7). Current purity of powder methamphetamine was reported on by nine REU with opinion divided between high and medium, both reported by 44% (n=4). A further 11% (n=1) described it as low. Information on the current purity of crystal methamphetamine was provided by 12 REU. Prevailing opinion was that purity was high, as reported by 58% (n=7). This was followed by 25% (n=3) who described it as medium and 17% (n=2) who reported it to be fluctuating. Base is not reported due to small numbers reporting its recent use (n=3).

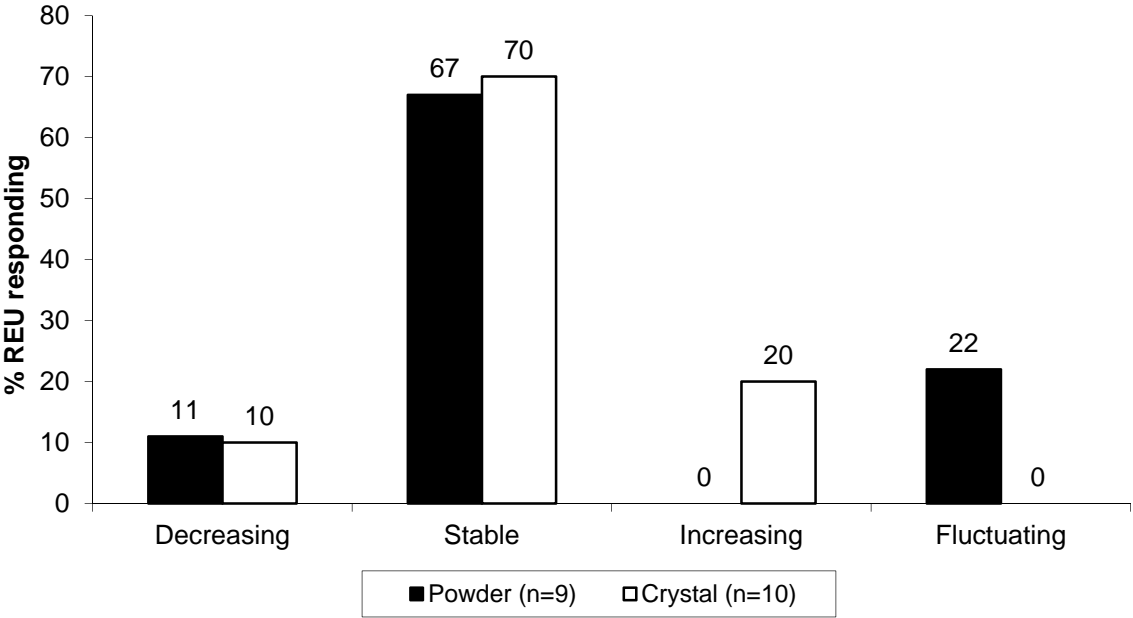
**Figure 6: User reports of current methamphetamine purity, 2011**



**Source: WA EDRS REU interviews, 2011**

There were nine REU who commented on changes to the purity of powder methamphetamine. The majority of these (67%, n=6) reported that purity had remained stable. Similarly, of the 10 REU who commented on trends in purity of crystal methamphetamine, 70% (n=7) reported that it had remained stable. Once again, data on trends in purity of base is not reported due to the small number of respondents (n=3). A complete breakdown of trends in methamphetamine purity in the six months prior to interview is displayed in Figure 7.

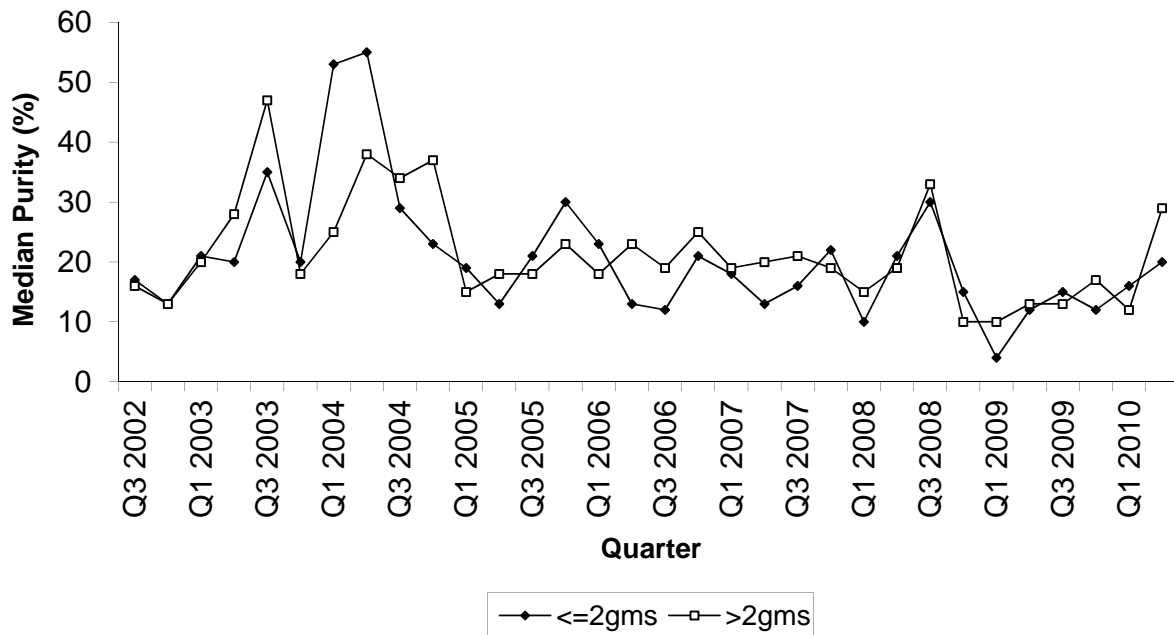
**Figure 7: User reports of changes in methamphetamine purity in the past six months, 2011**



Source: WA EDRS REU interviews, 2011

Figure 8 shows data provided by the ACC regarding the median purity of methylamphetamine in WA. It is evident that purity has varied across time, with a peak in the first half of 2004. This data suggests that since the slump in purity seen in January to March 2009, purity has slowly improved and at the end of the second quarter of 2010, median purity of seizures of two grams or less was 20% and of seizures in excess of two grams was 29%. These were the highest median figures recorded since the peak in purity during the third quarter of 2008.

**Figure 8: Median purity of methylamphetamine seizures analysed in WA by quarter, July 2002 to June 2010**



Source: ACC, 2003-2011

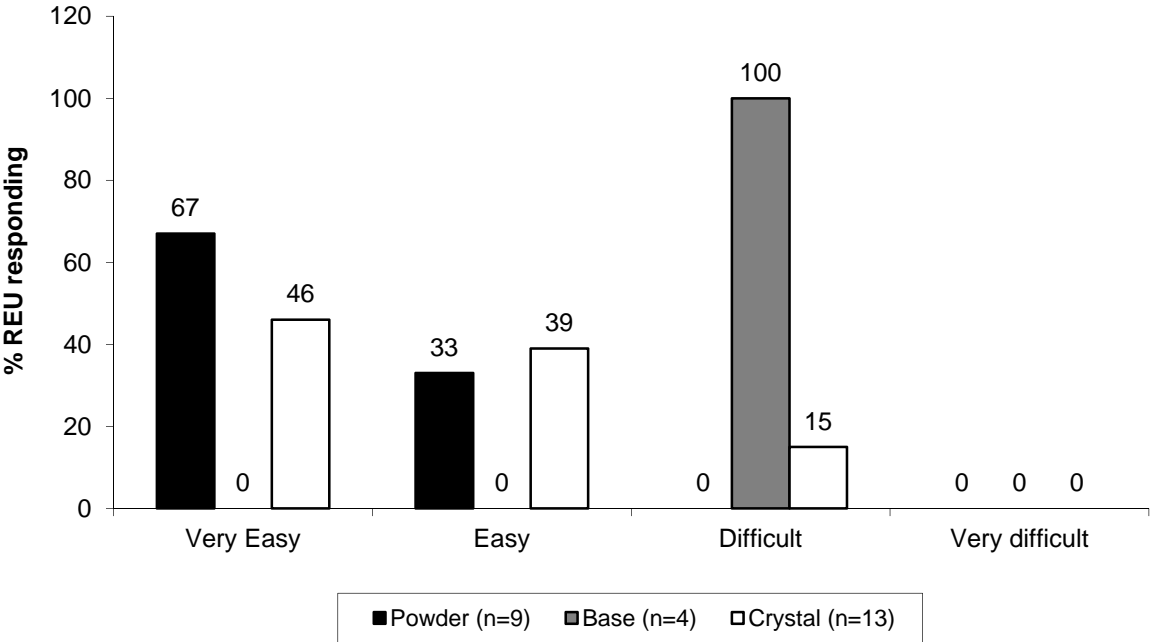
There were two KE who commented on purity of methamphetamine, both indicating an increased potency of the crystal form and one suggesting that the purity of speed powder had also increased.

Only one KE commented on purity of methamphetamines, noting that there had been a “bad batch” in circulation leading to painful symptoms associated with its use.

### 5.2.3. Availability

Of the nine REU commenting on current availability of powder, 67% (n=6) reported availability as very easy. Similarly, the most common response from the 13 REU providing information on crystal was 46% (n=6) reporting current availability as being very easy. Although only four REU provided information on current availability of base methamphetamine, there was unanimous agreement that it was difficult. There were no respondents reporting availability of any form of methamphetamine as being very difficult. A full breakdown of responses concerning current availability of methamphetamine is displayed in Figure 9.

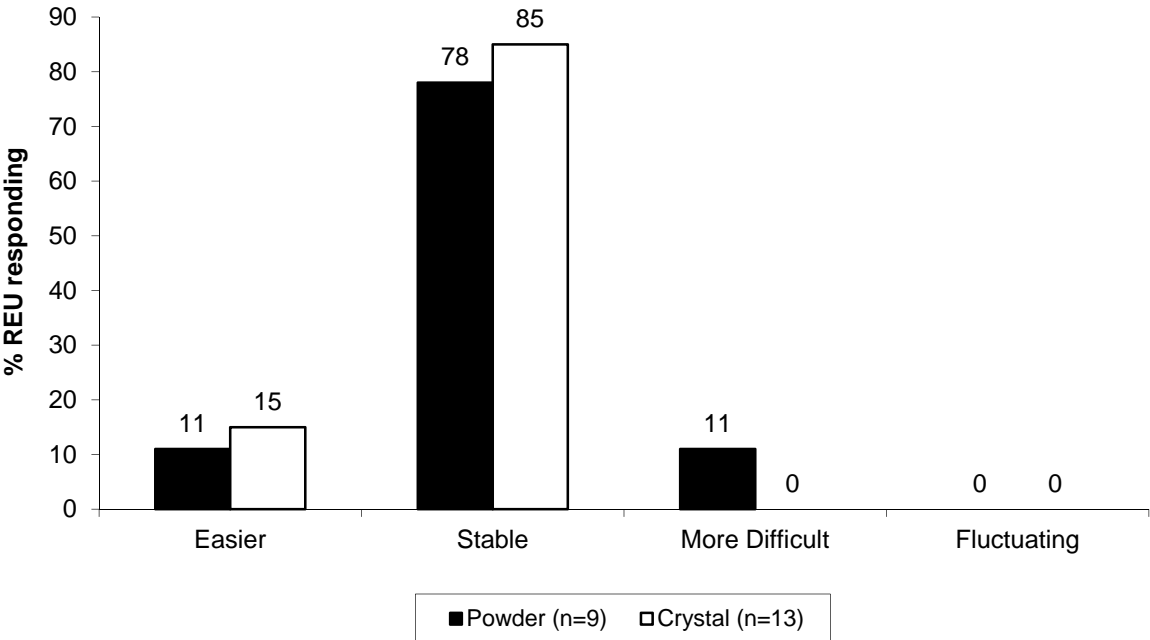
**Figure 9: Current availability of methamphetamine forms, 2011**



**Source: WA EDRS REU interviews, 2011**

With regards to perceived changes in availability over the preceding six months, nine REU provided information on powder methamphetamine with 78% (n=7) reporting that it had remained stable. Similarly, 85% (n=11) of those 13 REU providing information on changes to availability of crystal indicated that it had remained stable. Data for changes in the availability of base is not reported due to very small (n=3) numbers responding. A complete breakdown of this data is displayed in Figure 10.

**Figure 10: Change in the availability of various forms of methamphetamine in the preceding six months, 2011**



**Source: WA EDRS REU interviews, 2011**

The most recent Illicit Drug Data Report (ACC, 2011) reported on seizures of amphetamine-type stimulants (ATS) in the period 2009/10. ATS incorporate MDMA, amphetamine and methamphetamine. In WA, state police and Australian Federal Police were responsible for 2,372 seizures totalling 45,541 grams compared with 3,581 seizures totalling 212,852 grams during the previous year. With regards to more recent trends, however, one KE from the law enforcement sector observed that “*methamphetamine had increased in availability by 25% in the last 12 months*”.

For all forms of methamphetamine, the last person from whom the drug had been obtained was reported as friends. Of the eight REUs reporting on powder methamphetamine, 75% (n=6) reported having obtained the drug from friends and the remaining 25% (n=2) from acquaintances. There were 12 respondents who provided this information regarding crystal methamphetamine of whom 92% (n=11) had last obtained the drug from friends, and the remaining individual from acquaintances. Only three respondents reported about base and of these 67% (n=2) had obtained from friends and the remaining individual reported obtaining base from a known dealer.

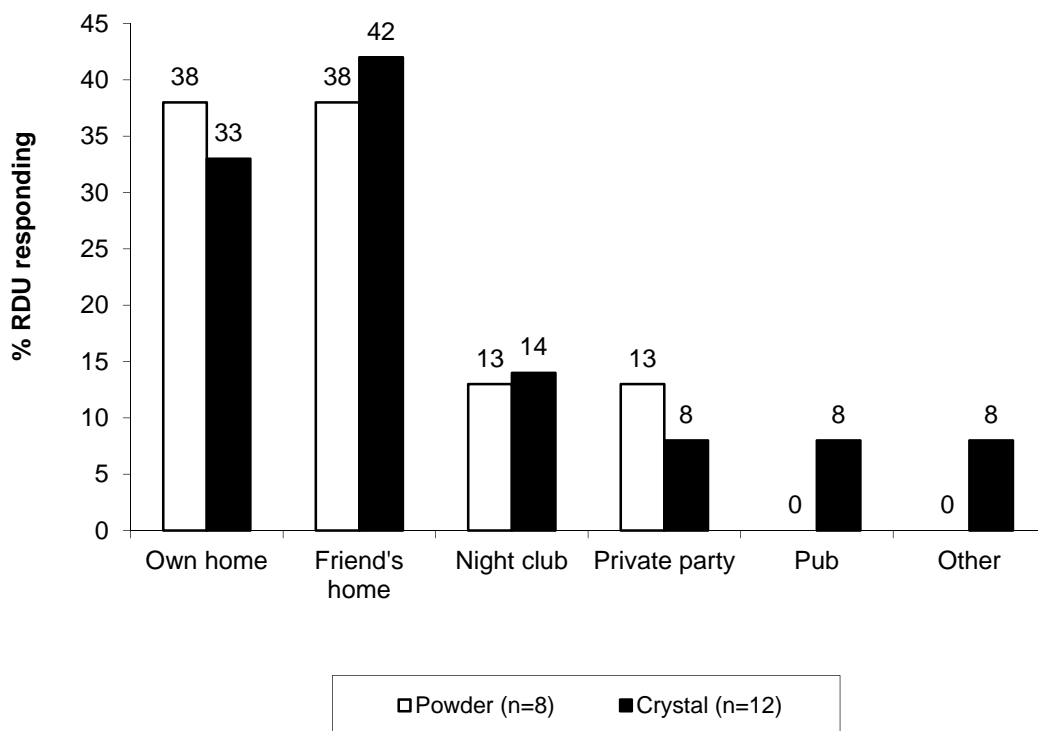
There were eight REU who reported on the most recent locations from which they had obtained powder methamphetamine. The most common locations, each reported by 38% (n=3), were home and friend’s home. The two remaining individuals reported obtaining from pubs and an acquaintance’s home respectively. Amongst the 12 REU who reported this data with respect to crystal methamphetamine, the most common last location for scoring was a friend’s home, as reported by 50% (n=6), followed by own home reported by 33% (n=4). The two remaining individuals nominated an agreed public location and an acquaintance’s home as their last locations for obtaining crystal. Just three respondents provided this information for base. Two of these had obtained at home, and one from a dealer’s home.

#### 5.2.4. Last location of methamphetamine use

Participants who reported using any form of methamphetamine in the last six months were asked about the last locations where they spent most of their time under the influence. Due to the small number of those who responded for base (n=4), results are not reported for this form of methamphetamine.

Figure 11 presents the most common last location spent under the influence for powder and crystal. In 2011, the most common last locations spent under the influence of powder was evenly split between own home and friend's home, both reported by 38% (n=3). Other reported locations nominated by individual respondents included a nightclub and a private party. Among the 12 respondents providing this information on crystal methamphetamine, the most common last location under the influence was a friend's home reported by 42% (n=5), followed by own home reported by 33% (n=4). Other individual respondents also reported nightclubs, pubs and backpackers. Only three respondents reported on the last location where they had been under the influence of base methamphetamine, all three nominating their own home.

**Figure 11: Last location where most time was spent under the influence of methamphetamine by form, 2011**



Source: WA EDRS REU interviews, 2011



### 5.2.5. Summary of methamphetamine trends

- The median price per point for all forms of methamphetamine was \$100 and this has remained consistent across survey years. Reported median prices for a gram of powder was \$800, for a gram of base was \$1,000 and for a gram of crystal was \$400. Prices of all forms were generally described as stable. This price data, however, was provided by very small numbers of respondents and should be interpreted with caution.
- Current purity of speed was rated by the majority as medium and as high for crystal. There was insufficient data to draw conclusions regarding the purity of base. The purity of both forms was generally viewed as stable.
- Availability of both powder and crystal methamphetamine was generally described as very easy. Although only four REU reported on availability, all agreed that it was difficult. Availability for both powder and crystal was generally agreed to be stable. Insufficient numbers reported on availability of base to draw firm conclusions.
- Friends were the most common persons reported for last purchasing all forms of methamphetamine from and own home was the most common last location for speed, while a friend's home was most common for crystal. There were insufficient numbers reporting on base to allow interpretation.

## 5.3. Cocaine

### 5.3.1. Price

Like in previous years, in 2011 only a small sub-sample of four respondents commented on the price of cocaine (see Table 14), therefore these reported findings should be interpreted with some caution. The median cost for a gram of cocaine was \$375.

**Table 14: Price of cocaine purchased by REU, 2003-2011**

<b>Cocaine</b>	2003 (n=6)	2004 (n=7)	2005 (n=14)	2006 (n=14)	2007 (n=8)	2008 (n=8)	2009 (n=9)	2010 (n=4)	<b>2011 (n=5)</b>
Median price per gram	\$325	\$300	\$350	\$350	\$390	\$325	\$375	<b>\$365</b>	<b>\$375</b>
Price range	(\$250- \$400)	(\$250- \$400)	(\$300- \$450)	(\$210- \$600)	(\$200- \$500)	(\$300- \$400)	(\$200- \$1300)	<b>(\$300- \$500)</b>	<b>(\$350- \$500)</b>

**Source: WA PDI/EDRS REU interviews, 2003-2010**

Of the six respondents who provided information concerning cocaine, 50% (n=3) were unable to report on price changes in the past six months. That the price had remained stable was reported by 33% (n=2) and one respondent reported that it had fluctuated. Needless to say, great caution must be taken in drawing conclusions from these data which are based on very small numbers of respondents. Although one KE thought the price of cocaine to have increased, another two thought it had become cheaper, one of these opining that cocaine was now "*slightly cheaper than methamphetamine*".

Data obtained from the ACC indicated that in WA during 2009/10 cocaine prices ranged from \$380-\$400 per gram, \$6,500-\$20,000 per ounce and \$100,000-\$150,000 per pound (ACC, 2011).

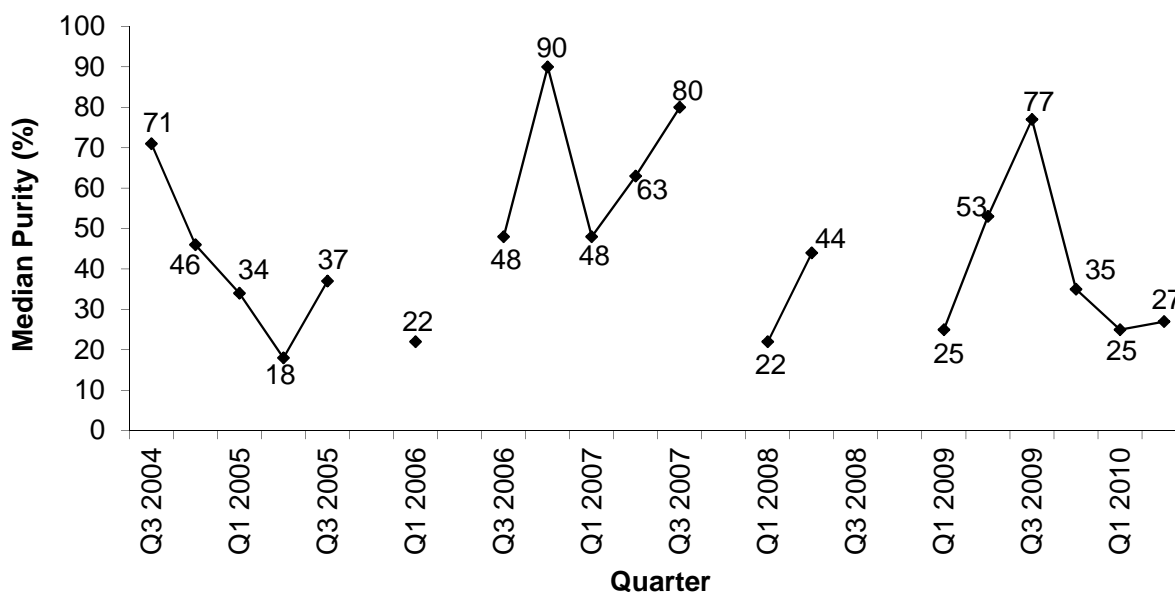
### 5.3.2. Purity

There were six respondents who provided information on the current purity of cocaine in Perth. The majority of these, 67% (n=4), described current purity as low. That it was medium or fluctuating were both reported by individual respondents. The very small number of respondents here precludes drawing any meaningful conclusions from 2011 data. One KE from the law enforcement sector expressed the opinion that there had possibly been an increase in the purity of cocaine in Western Australia.

Of the six REU who responded to perceived purity of cocaine in the six months prior to interview, 50% (n=3) were unable to answer. Another 33% (n=2) reported it as stable and one respondent said it was fluctuating. Again, the very small number of respondents here precludes drawing any conclusions based on these data.

Figure 12 shows ACC data for the median purity and number of cocaine seizures in WA. It is difficult to interpret meaningful findings due to number of seizures historically being extremely low in WA. However, the very large number of seizures during the 2009/10 period (see Section 5.3.2, 'Cocaine availability') suggests that the figures from this period may be relatively accurate. From these it would appear that the purity of cocaine seizures analysed in WA continues to fluctuate substantially, in the 2009/10 period, ranging from 25% to 77%.

**Figure 12: Median purity of cocaine seizures analysed in WA by quarter, July 2004 to June 2010**



Source: ACC, 2005-2011

### 5.3.3. Availability

There were six respondents who commented on cocaine availability in WA of which 83% (n=5) reported that cocaine was currently difficult to obtain. The remaining respondent said it was easy.

With regards to changes in availability over the preceding six months, 83% (n=5) reported that it had remained stable and the remaining respondent didn't know.

Data from the ACC (2011) reveals a substantial increase in seizures of cocaine in WA from 59 seizures in 2008/09 to 128 seizures in 2009/10. This was reportedly the greatest percentage increase of any Australian jurisdiction.

Asked to describe the last person who they had purchased cocaine from, 50% (n=3) indicated that they hadn't obtained any cocaine in the last six months. Obtaining from friends was reported by 33% (n=2) and the remaining respondent had obtained cocaine from an unknown dealer.

With regards to location from where cocaine had most recently been obtained, 50% (n=3) respondents had not obtained any cocaine in the last six months. The remaining three respondents reported obtaining cocaine at a friend's home, at a nightclub and at a private party respectively.

### 5.3.4. Last location of cocaine use

Of the five respondents providing information on this section, 40% (n=2) indicated that they hadn't used cocaine in the last six months. The remaining three respondents reported their last location of cocaine use to be at a friend's home, at a nightclub and at a private party respectively.

### 5.3.5. Summary of cocaine trends

The number of EDRS respondents who had recently used cocaine and considered themselves able to report on cocaine market trends was extremely small (n=6). As such we recommend extreme caution in interpreting the data presented here:

- The median price of a gram of cocaine was \$375. That the price of cocaine was stable was reported by two respondents and that it had fluctuated by one.
- Current purity was generally rated by REU as low. Purity levels were described as stable by two REU and as fluctuating by one. Analysis of cocaine seizures also revealed very low levels of purity throughout the last three quarters of 2009/10.
- Current availability of cocaine was generally rated as difficult and viewed as having remained stable.
- Only three respondents reported obtaining any cocaine in the past six months. Two of these had obtained it from friends and the other from an unknown dealer. There was no consensus on the last location of use with the three REU reporting friend's home, nightclub and private party.

## 5.4. Ketamine

No respondents commented on the price, purity and availability of ketamine in the past six months in 2011.

## 5.5. GHB

Only one respondent provided information on GHB in the 2011 survey. This respondent was unable to comment on price, but reported that purity was currently fluctuating, but had been stable in the previous six months, and that access to the drug was currently very difficult and had remained so in the previous six months. Lack of supporting data does not allow for any firm conclusions to be drawn from this information.

## 5.6. LSD

### 5.6.1. Price

There were 12 respondents in the 2011 WA EDRS sample able to provide information concerning LSD. The median price for a tab of LSD was \$25, which has remained unchanged since 2007. Information concerning price changes to LSD in the previous six months was provided by 11 respondents, the majority of whom (64%, n=7) said it had remained stable. A further 27 % (n=7) reported that it had fluctuated and one respondent stated that the price had increased. There were no reports that the price had fallen. This information is displayed in Table 15.

**Table 15: Price of LSD purchased by REU, 2003-2011**

<b>LSD</b>	2003 (n=28)	2004 (n=12)	2005 (n=35)	2006 (n=20)	2007 (n=16)	2008 (n=9)	2009 (n=25)	2010 (n=32)	<b>2011 (n=12)</b>
Median price (\$) tab (range)	\$20 (15-40)	\$25 (7-40)	\$25 (15-40)	\$20 (10-50)	\$25 (10-30)	\$25 (20-45)	\$25 (5-40)	\$25 (10-40)	<b>\$25 (15-50)</b>
<b>Price change:</b>	(n=30)	(n=17)	(n=29)	(n=13)	(n=10)	(n=7)	(n=19)	(n=27)	<b>(n=11)</b>
Increased (%)	30	41	38	15	0	29	21	11	<b>9</b>
Stable (%)	53	29	34	69	90	57	74	78	<b>64</b>
Decreased (%)	7	6	17	8	10	14	5	7	<b>0</b>
Fluctuated (%)	10	24	10	8	0	0	0	4	<b>27</b>

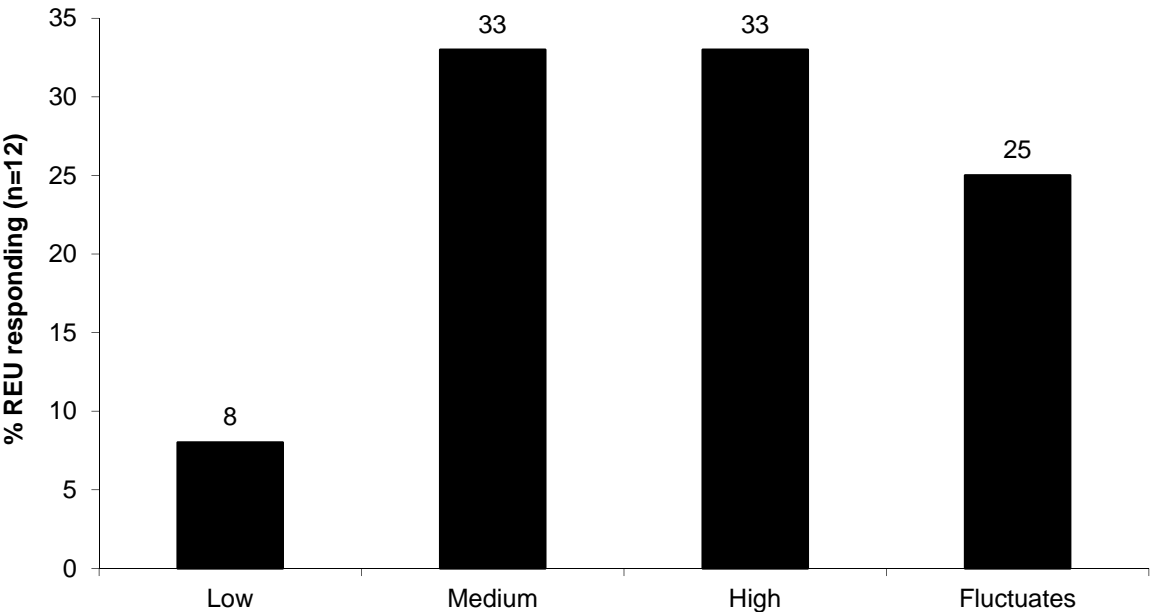
**Source: WA PDI/EDRS REU interviews, 2003-2011**

Data obtained from the ACC indicates that in WA during 2009/10, LSD cost between \$20 to \$35 per tab (ACC, 2011).

### 5.6.2. Purity

Of the 12 respondents who commented on current purity of LSD, 33% (n=4) reported that it was currently high and a further 33% (n=4) described it as medium. That it tended to fluctuate was reported by 25% (n=3) and 8% (n=1) described it as low. This data is shown in Figure 13.

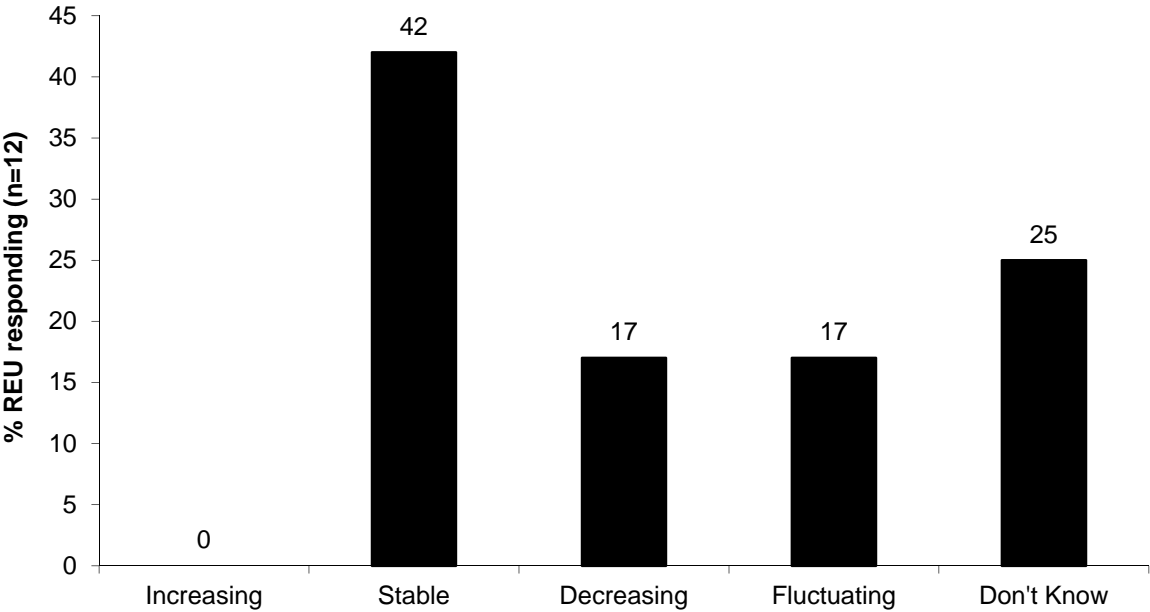
**Figure 13: User reports of current LSD purity, 2011**



**Source: WA EDRS REU interviews, 2011**

LSD purity over the previous six months was most commonly described as stable (42%, n=5). This was followed by decreasing and fluctuating, both reported by 17% (n=2). The remainder of those REU providing data on LSD (25%, n=3) indicated that they didn't know. This data is displayed in Figure 14.

**Figure 14: User reports of changes in LSD purity in the past six months, 2011**

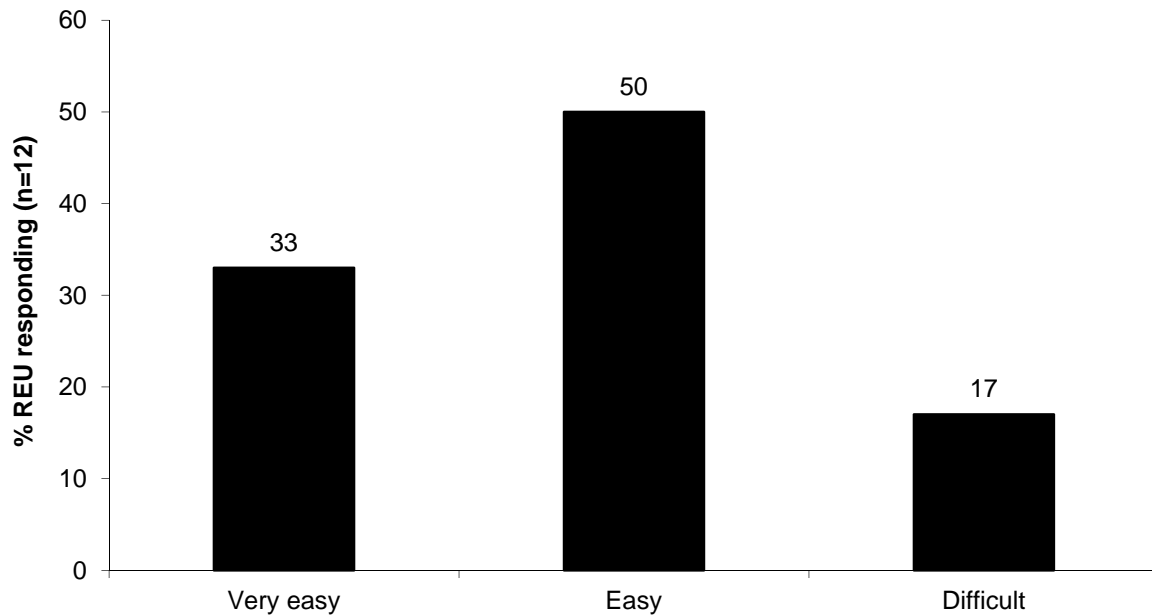


**Source: WA EDRS REU interviews, 2011**

### **5.6.3. Availability**

With regards to the current availability of LSD, 12 respondents provided information in the WA 2011 EDRS sample. Half of these (50%, n=6) reported that obtaining LSD was easy and a further 33% (n=4) that it was very easy. There were also 17% (n=2) who described access to the drug as difficult. This data is displayed in Figure 15.

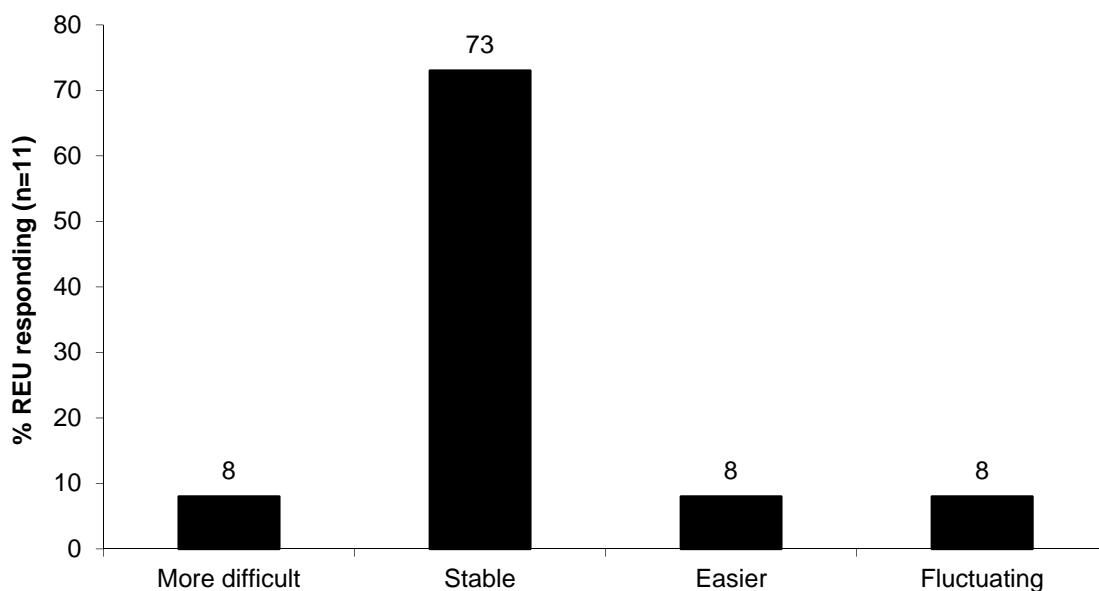
**Figure 15: Current availability of LSD, 2011**



**Source: WA EDRS REU interviews, 2011**

In regards to recent changes in availability, eleven respondents provided information. Of these, 73% (n=8) reported that this had been stable. That availability had become more difficult, easier or fluctuated were each reported by one respondent. This data is displayed in Figure 16. One KE expressed the opinion that LSD may be becoming more available again.

**Figure 16: Changes in availability of LSD during the past six months, 2011**



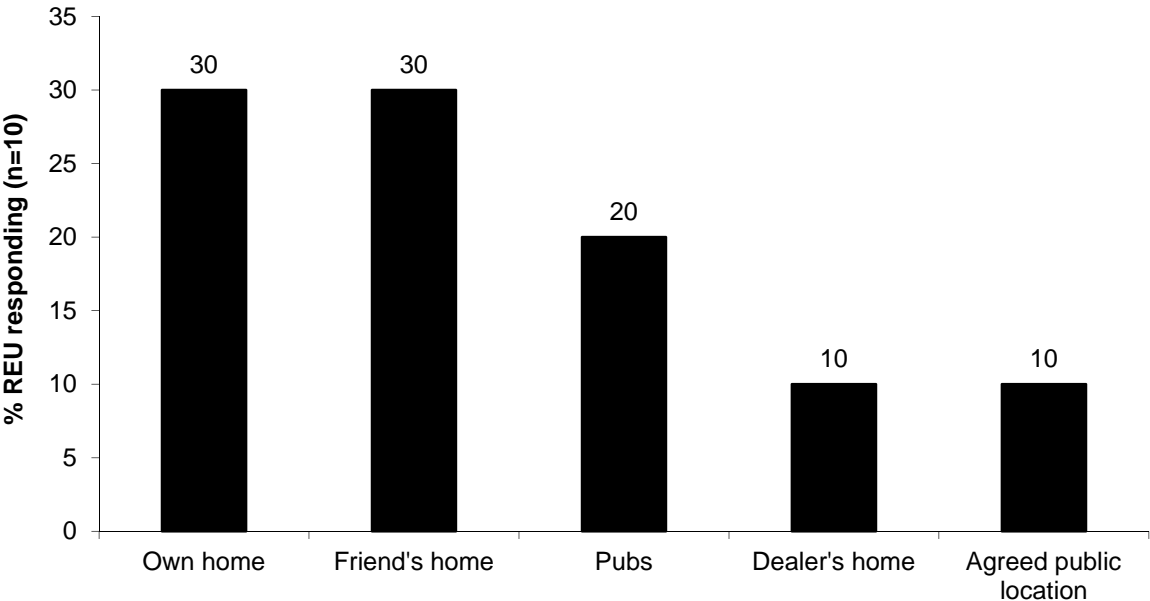
**Source: WA EDRS REU interviews, 2011**



There were 10 respondents who provided information of the people they had obtained LSD from in the last six months. By far the most common source of LSD was from friends, nominated by 90% (n=9). There was also one respondent who reported obtaining the drug from a known dealer.

Regarding the location where they had obtained LSD on the last purchase, 10 respondents provided information. The most common venues were equally the respondent's own home and a friend's home, both nominated by 30% (n=3). A further 20% (n=2) mentioned pubs and a dealer's home and an agreed public location were both mentioned by individual respondents. This data is shown in Figure 17.

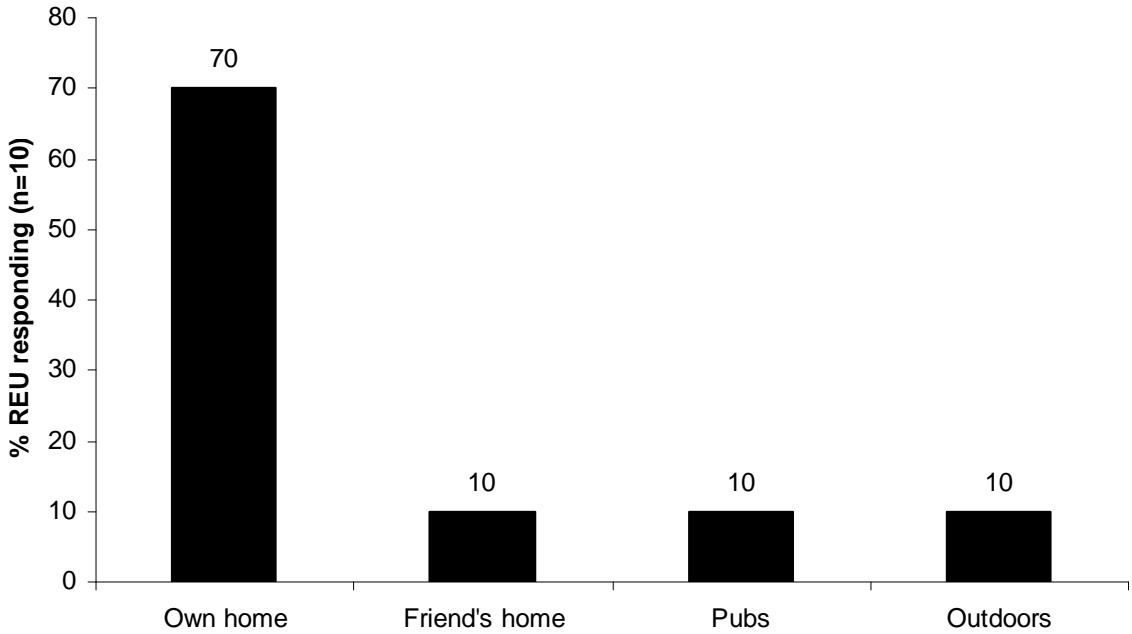
**Figure 17: Locations where LSD had been purchased in the preceding six months, 2011**



Source: WA EDRS RDU interviews, 2011

Asked about where they had last spent the most time under the influence of LSD, these same 10 respondents provided data. By far the most common location was their own homes reported by 70% (n=7). Individual respondents also reported a friend's home, a pub or outdoors. This data is portrayed in Figure 18.

**Figure 18 Locations of most recent use of LSD, 2011**



Source WA EDRS interviews, 2011

**5.6.4. Summary of LSD trends**

- Own home was the most commonly reported last location for using LSD.
- The median price was \$25 a tab, as found in previous years' samples.
- The price of LSD during the last six months was generally rated as stable .
- Opinion on the purity of LSD was divided with equal numbers describing it as medium and high. Recent purity of LSD was generally described as stable.
- Half of the 12 REU responding rated availability of LSD as easy and a further third as very easy. The vast majority reported availability of LSD to be stable.
- The majority reported friends (66%) as the most common person from whom LSD was obtained and own home was by far the most common locations of last use.

## 5.7. Cannabis

### 5.7.1. Price

Commencing in 2006, data was collected from REU regarding aspects of the cannabis market. Consistent with the IDRS, a distinction was made between indoor cultivated hydroponic cannabis (hydro) and outdoor cultivated bush cannabis (bush).

Table 16 presents REU reports of the price of one ounce of cannabis. An ounce of hydro (n=14) cost a median of \$350 in 2011 and ounce of bush (n=12) cost a median of \$250. Responses were also given for a gram. The median price for a gram of both hydro (n=6) and bush (n=5) was \$25 (range=\$20-\$25). One respondent reported buying three grams of bush for \$50.

Only one respondent was able to comment on the price of a cap of hash oil which was purchased for \$70. No respondents provided information on the price of hashish.

**Table 16: Median reported price of cannabis ounce, 2006-2010**

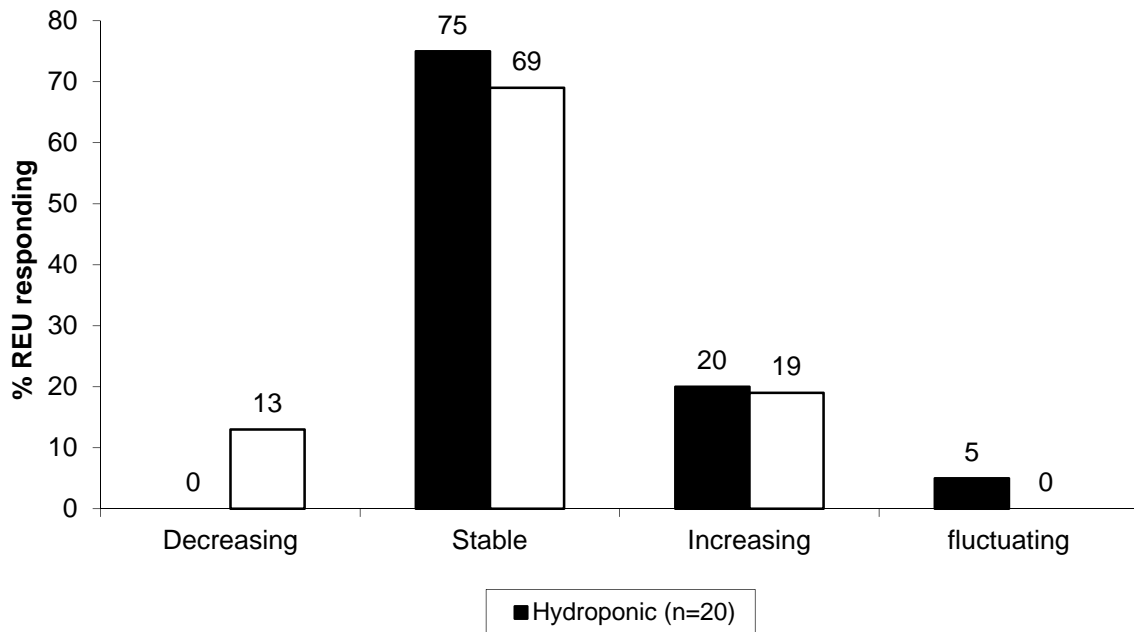
Form of cannabis	2006	2007	2008	2009	2010	2011
Hydroponic	(n=42) \$280	(n=33) \$300	(n=24) \$305	(n=23) \$350	(n=25) \$350	<b>(n=14) \$350</b>
Bush	(n=28) \$250	(n=20) \$250	(n=16) \$275	(n=16) \$280	(n=16) \$280	<b>(n=12) \$250</b>

**Source: WA EDRS REU interviews, 2006-2010**

Respondents were also asked to report on perceived changes in the price of cannabis in the previous six months (Figure 19). Of the 20 who commented, the majority reported the price of hydro as stable (75%, n=15), followed by 20% (n=4) reporting increasing, and 5% (n=1) as fluctuating. With regards to bush, with the majority of the 16 respondents providing information, 69% (n=11) reported it as stable. This was followed by 19% (n=3) who reported that it was increasing and by 13% (n=2) who reported that it was decreasing.

Data obtained from the ACC indicates that in WA during 2009/10, cannabis (regardless of form) cost \$25-50 for a one gram deal, \$350-\$500 for an ounce, and \$4,000-\$5,000 for a pound. There was no ACC data available concerning the price of hashish (ACC, 2011).

**Figure 19: Recent changes in price of cannabis purchased by REU, 2011**



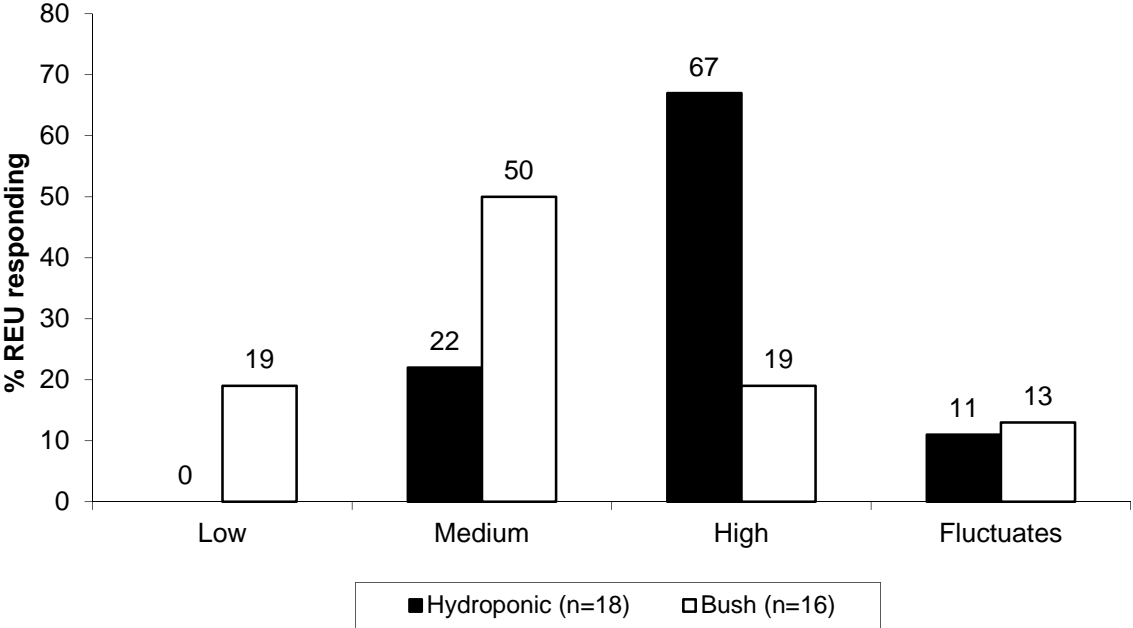
**Source: WA EDRS REU interviews, 2011**

Only two KE commented on the price of cannabis, one from the law enforcement sector commented that an ounce of hydro now typically cost \$350-\$500 *depending on quality*, and the other expressing the opinion that cannabis was now more expensive.

### 5.7.2. Purity

Respondents also reported on the current purity of cannabis and perceived changes in purity during the previous six months. As shown in Figure 20, of the 18 respondents providing information on hydro, 67% (n=12) reported it as being high, followed by 22% (n=4) who described it as medium. There was also 11% (n=2) who reported that it tended to fluctuate. With regards to the current purity of bush, 16 respondents provided information. The prevailing view, held by 50% (n=8), was that it was medium, followed by contrasting reports that it was either high or low, both reported by 19% (n=3). There were also 13% (n=2) who said purity of bush tended to fluctuate.

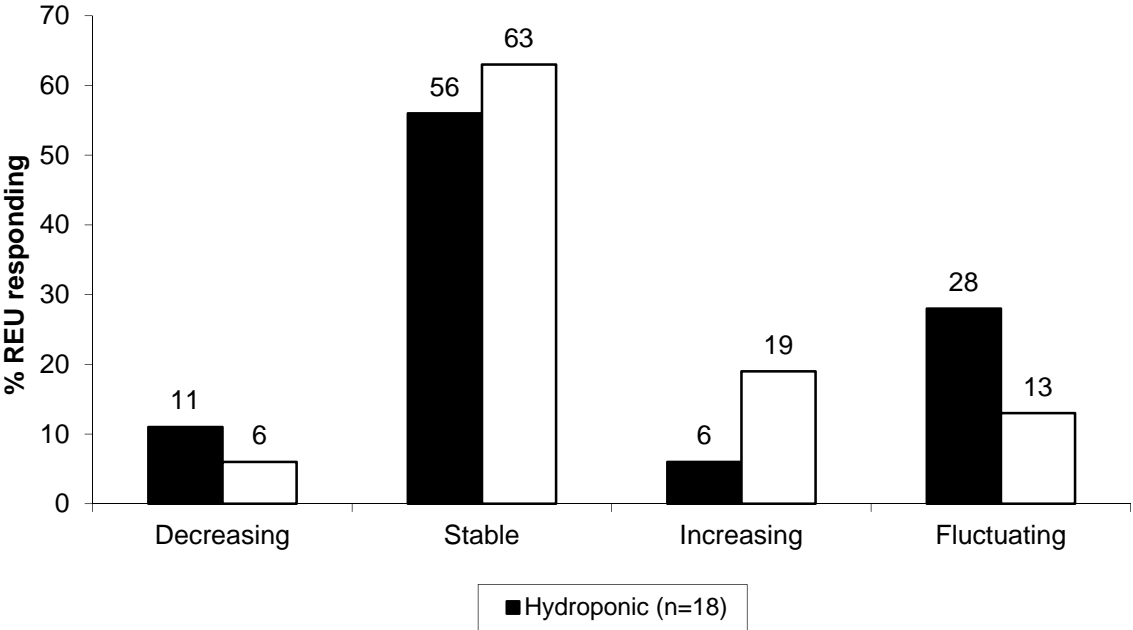
**Figure 20: User reports of current purity of cannabis, 2011**



**Source: WA EDRS REU interviews, 2011**

Of the 18 respondents who commented on changes to potency of hydro in the previous six months, 56% (n=10) reported that this had remained stable, followed by 28% (n=5) who thought it had fluctuated. There was also 11% (n=2) who believed it had decreased and 6% (n=1) who reported that there had been an increase. With regards to changes in purity of bush, of the 16 respondents providing information, 63% (n=10) reported that this had been stable, followed by 19% (n=3) who thought it had increased. There was also 13% (n=2) who reported that purity had tended to fluctuate and 6% (n=1) who believed it had decreased. This data is shown in Figure 21.

**Figure 21: User reports of changes in cannabis purity in the past six months, 2011**



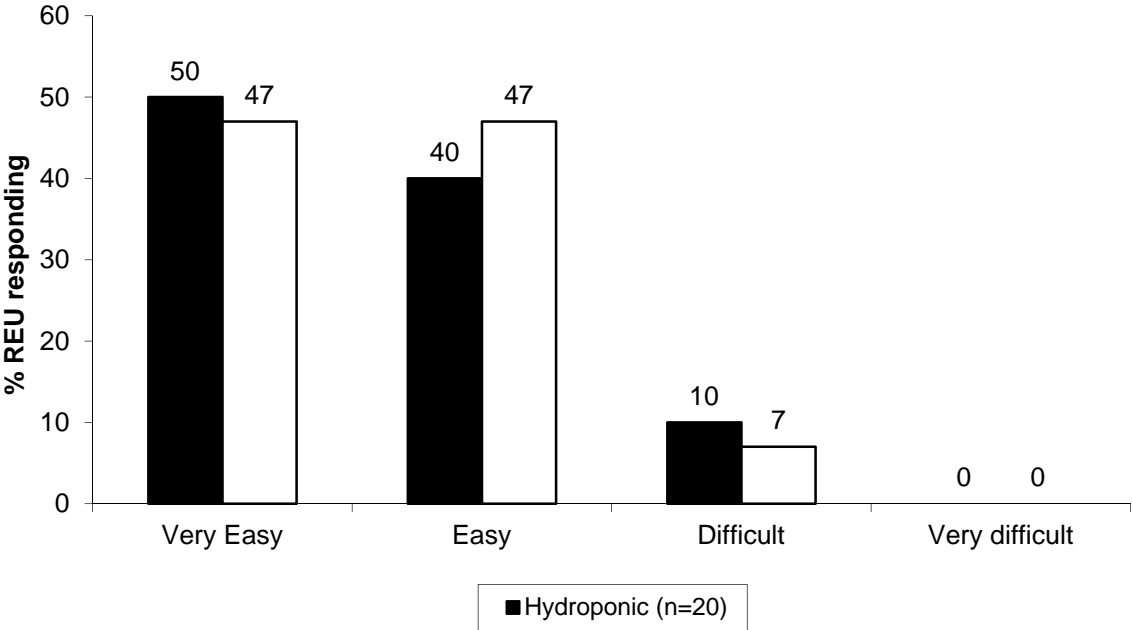
**Source: WA EDRS REU interviews, 2011**

Only one KE commented on cannabis purity saying that hydro may be becoming stronger.

**5.7.3. Availability**

Of the 20 REU who provided information concerning the current availability of hydro, the prevailing view held by 50% (n=10) was that it was very easy to obtain, followed by 40% (n=8) who reported availability as easy. There was also 10% (n=2) who reported it as difficult. With regards to the availability of bush, of the 15 REU who responded, opinion was evenly divided between very easy and easy, both reported by 47% (n=7). That availability was difficult was reported by 7% (n=1). No respondents nominated the availability of either form of cannabis as very difficult. This data is shown in Figure 22.

**Figure 22: Current availability of cannabis, 2011**



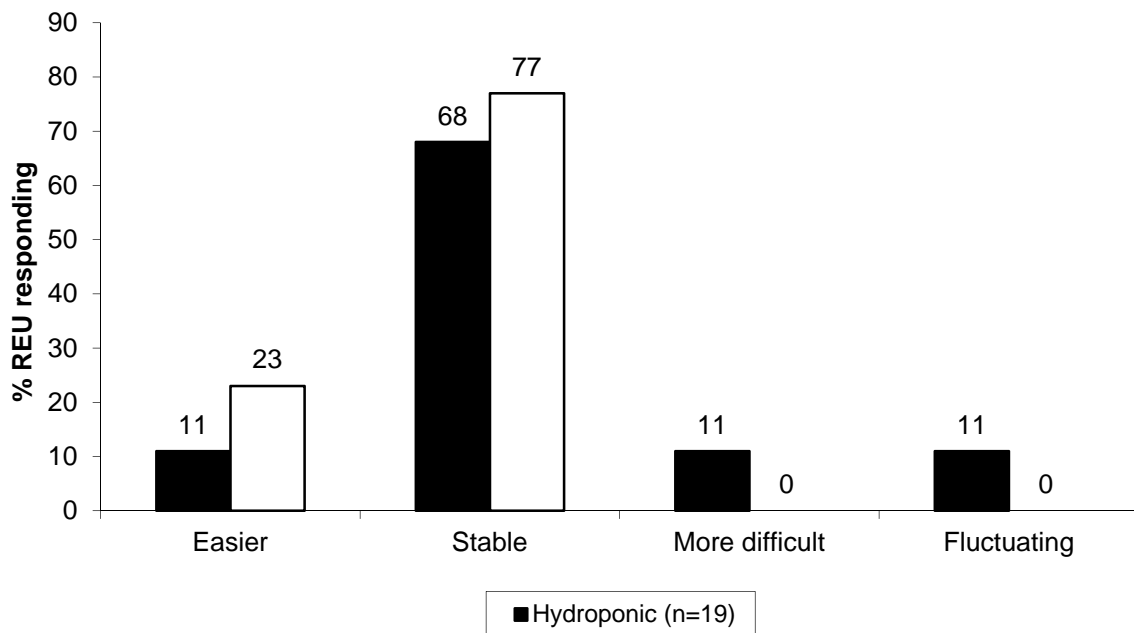
**Source: WA EDRS REU interviews, 2011**

Asked about changes to the availability of hydro in the six months prior to the survey, 19 REU provided information. Of these, 68% (n=13) reported that availability had remained stable. That availability was either more difficult, easier or fluctuating was each reported by 11% (n=2).

Opinions amongst the 13 respondents reporting on bush were less diverse, with 77% (n=10) reporting that it had been stable, and 23% (n=3) describing it as easier. This data is shown in Figure 23.

Figures from the ACC reported that in 2009/10 there were 9,599 seizures of cannabis in WA compared to 9,572 in 2008/09 (ACC, 2011).

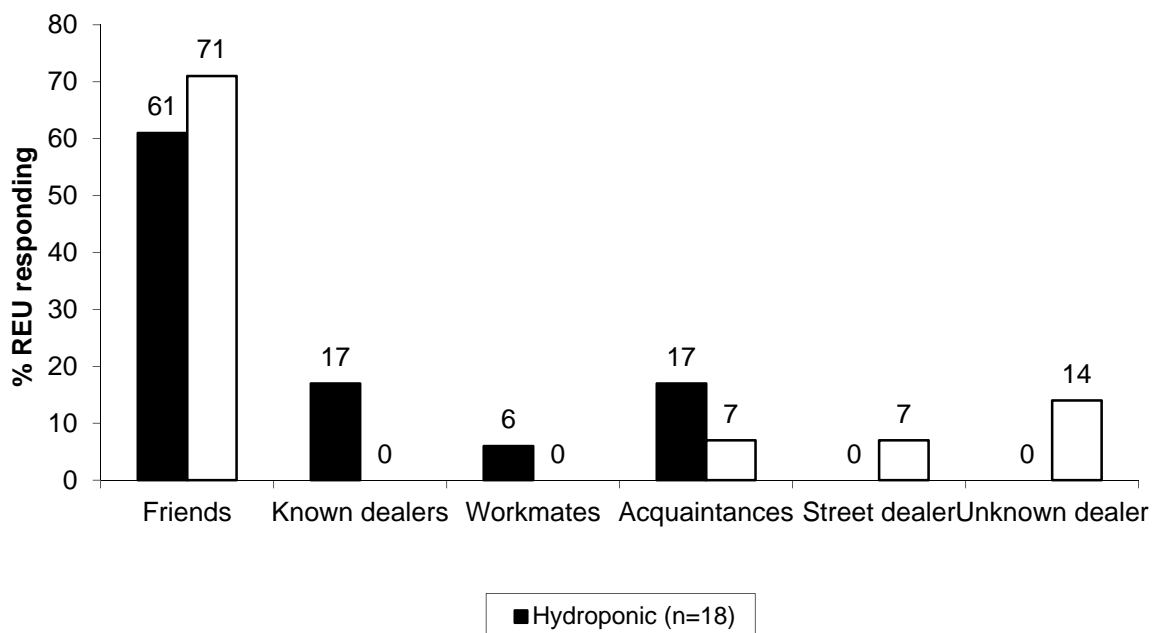
**Figure 23: Changes in cannabis availability in the preceding six months, 2011**



Source: WA EDRS REU interviews, 2011

Friends remained by far the most common source of hydro cannabis in 2011, reported by 61% (n=11) of the 18 REU responding. Similarly, friends was also the most common source of bush cannabis, reported by 71% (n=10) of the 14 REU reporting. Reporting of other sources for either form of cannabis was uncommon, and nominated by only one to three respondents. A full breakdown is shown in Figure 24.

**Figure 24: Last person from whom cannabis usually purchased in the preceding six months, 2011**



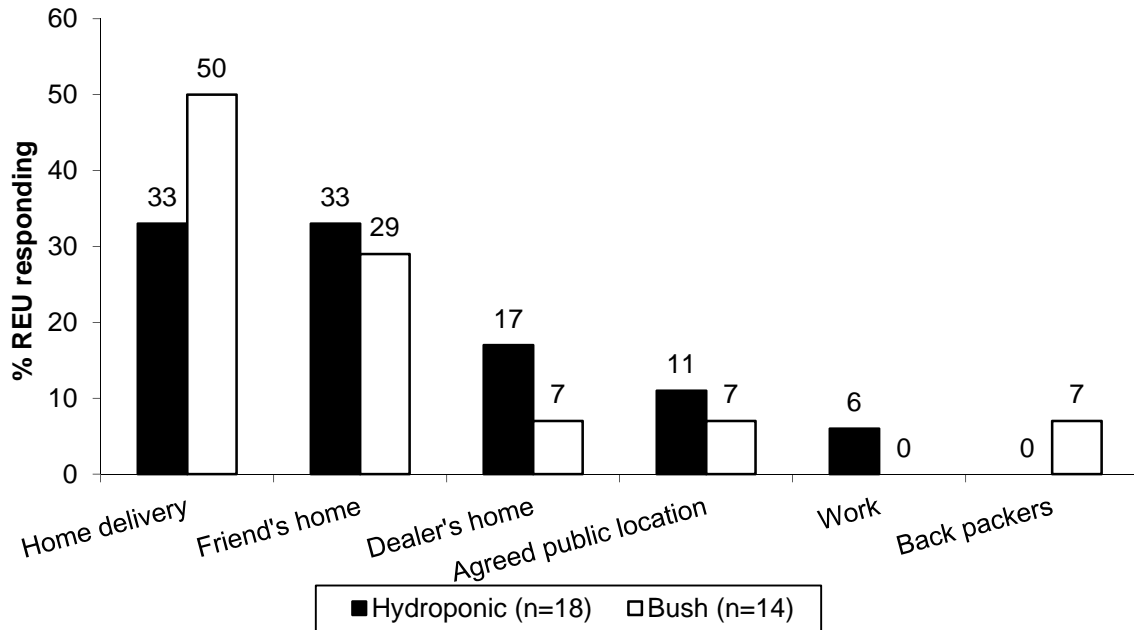
Source: WA EDRS REU interviews, 2011



### 5.7.4. Last location of cannabis use

With regards to last locations for obtaining hydro cannabis, of the 18 REU responding, the most common locations reported were home delivery and a friend's home, each reported by 33% (n=6). A dealer's home was reported by 17% (n=3), an agreed public location by 11% (n=2) and work by 6% (n=1). With regard to bush, 14 REU provided information. Home delivery was most common, reported by 50% (n=7), followed by a friend's home by 29% (n=4). Other responses included a dealer's home, an agreed public location and a backpackers, each reported by individual respondents. This data is shown in Figure 25.

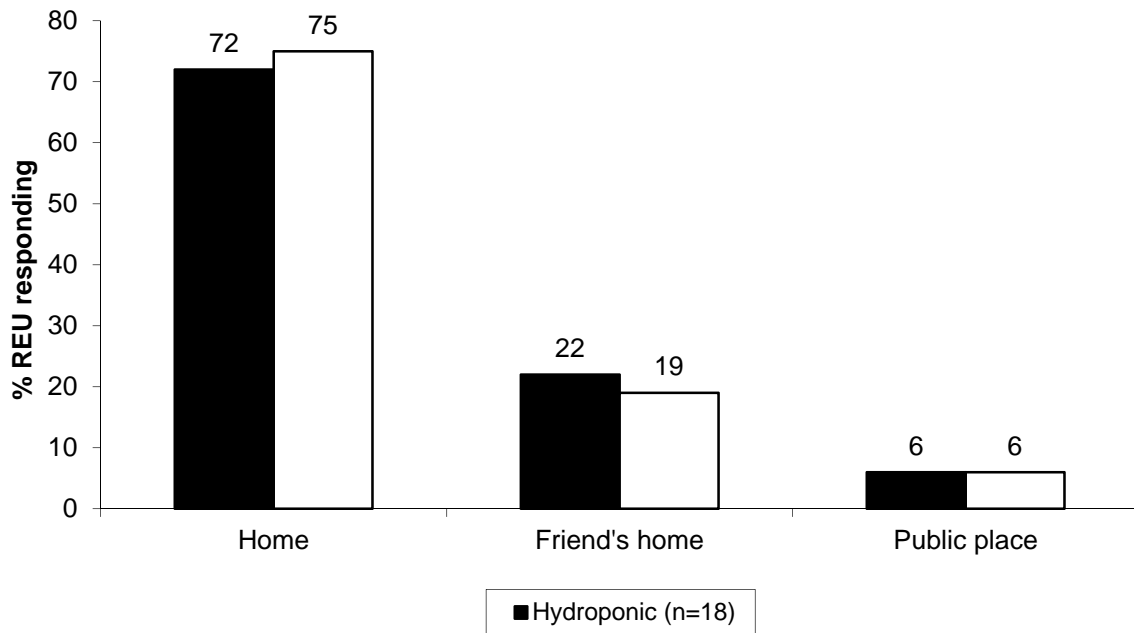
**Figure 25: Location where cannabis was last purchased, 2011**



**Source: WA EDRS REU interviews, 2011**

When asked about the last location where most time was spent under the influence of hydro cannabis, the 18 REU responding indicated that the most common location was home, reported by 72% (n=13). Similarly, of the 16 REU responding about bush, 72% (n=12) reported home. For both forms of cannabis, other locations where most time was spent under the influence were uncommon. This data is shown in Figure 26.

**Figure 26: Last use venue most intoxicated by cannabis at the time, 2011**



Source: WA EDRS REU interviews, 2011

#### 5.7.5. Summary of cannabis trends

- The median price of an ounce of hydro was \$350 compared to \$250 for an ounce of bush. The majority of REU reported the price of cannabis to be stable.
- Current potency of hydro was typically rated by REU as high and bush as medium. Potency of both forms was generally reported as stable.
- The majority of respondents rated current availability of both hydro and bush as either very easy or easy. No respondents rated the availability of either form as very difficult.
- Friends were by far the most commonly reported source of both forms of cannabis. Own home was the most commonly reported location of last use of cannabis.

## 6. HEALTH-RELATED TRENDS ASSOCIATED WITH ECSTASY AND RELATED DRUG USE

### 6.1. Overdose and drug-related fatalities

Since 2007, respondents were asked separately about overdose on a stimulant drug and on a depressant drug.

Overdose on a stimulant drug in the last 12 months was reported by 46% (n=13) of the current sample, and overdose on a depressant drug was reported by 36% (n=10) in 2011. These figures seem improbably high compared to findings of previous years and are likely to be a misrepresentation arising from the extremely small sample size in the 2011 WA EDRS survey and possibly the influence of a disproportionately high proportion of IDU in the sample.

Of those who had ever overdosed on a stimulant drug, the median number of times was one (range=1-30) and the most recent overdose was a median of 20 months ago (range=1-72). Of those who had ever overdosed on a depressant drug, the median number of times was 14 (range=1-100) and the most recent overdose was a median of four months ago (range=1-120). Once again, the extremes of ranges reported for number of overdoses even after excluding outlying data seem improbably high compared to findings of previous years and are unlikely to be accurate. The most common location of stimulant overdose was a friend's home for stimulant (39%, n=5) and depressant (30%, n=3) overdose. This data is presented in Table 17.

**Table 17: Reported overdose on stimulant and depressant drugs, 2011**

Overdose	Stimulant	Depressant
Ever overdosed	57%	57%
Of those that had overdosed:	(n=16)	(n=16)
Median number of times (range)*	1 (1-30)	14 (1-100)
Most recent overdose (median months)	20	4
Location of overdose being own home	23%	13%

**Source: WA EDRS REU interviews, 2011**

\* Outliers have been excluded

Of the 13 respondents who commented on stimulant overdose in the last 12 months, the greatest proportion reported ecstasy (54%, n=7) as the main drug taken. Methamphetamines were mentioned in this context by 31% (n=4) and there were individual reports of overdoses resulting from the consumption of LSD and 2CB-Fly. Four respondents reported taking another drug in combination with a stimulant when the overdose occurred. These other substances included ecstasy, methamphetamines, pharmaceutical stimulants, cannabis and alcohol. The most common symptom of stimulant overdose was vomiting, reported by 31% (n=4). There were also individual reports of chest pain, tremors, increased body temperature, increased heart rate, irregular breathing, extreme anxiety, paranoia and hallucinations. All 13 respondents indicated that the overdose had occurred after a heavy session as opposed to a normal night out. The median number of hours spent “partying” was 10 (range=3-96). Just 31% (n=4) of these recent stimulant overdoses reported that there was a sober person present who was able to assist them. There were no reports of any formal immediate medical responses to these overdoses. Just two individuals reported seeking further information or treatment after the event.

Of the 10 participants who commented on depressant overdose in the last 12 months, the main drug reported was alcohol (80%, n=8). The only other drugs reported taken at the time

of the overdose were cannabis and, in one instance, tobacco. Median time spent “partying” prior to overdose on depressants was 10 hours (range=2-96) and 80% (n=8) described the occasion as a heavy session as opposed to a normal night out. Of those responding, that there was a sober person available to assist at the last depressant overdose was reported by 40% (n=4). Just one individual reported having received formal medical assistance at the time of the overdose with ambulance attendance required. Only one REU reported having sought further advice or treatment later, and this was sought from their general practitioner (GP).

It must be emphasised that only a small number of participants are represented in these overdose samples and therefore these samples may not be representative of trends occurring within the general population of party drug users. It may also be important to note that the drugs that influence these overdoses may be more a reflection of the drug preferences of the sample than the various substances’ relative potential to result in overdose.

## **6.2. Help-seeking behaviour**

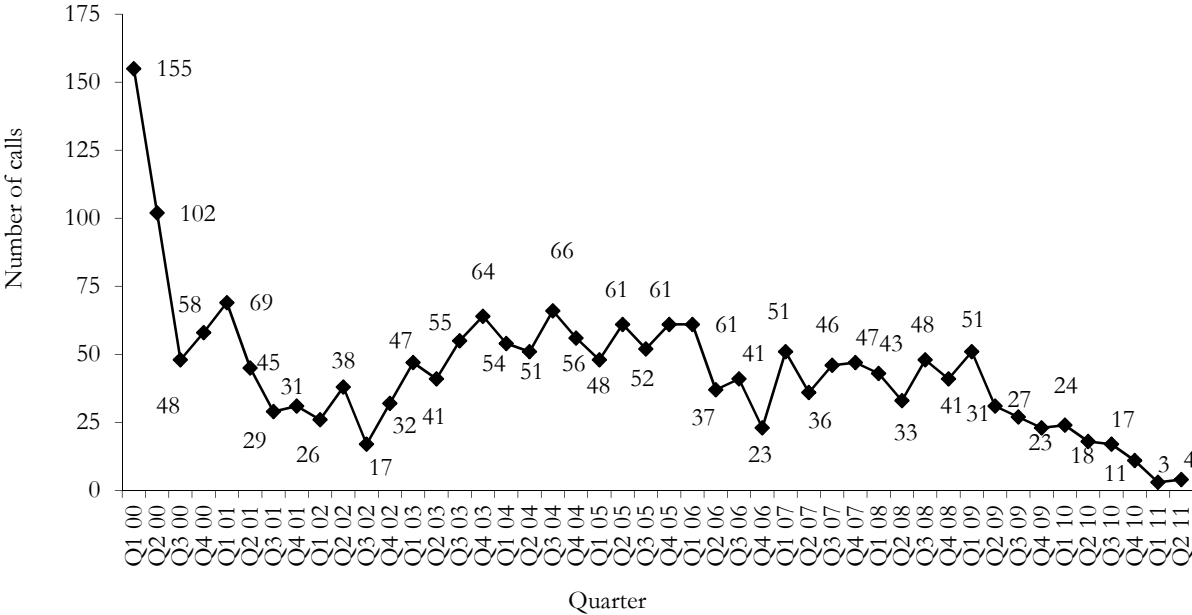
Participants were asked if they had accessed any medical or health services in relation to their drug use in the last six months, and this was answered yes by 18% (n=5) of current REU. The most common services accessed were GPs, seen by three REU; other individual participants reported having seen a counsellor, a drug and alcohol worker and a psychiatrist. The most commonly nominated drug of concern was alcohol, mentioned by two REU while individual respondents mentioned ecstasy, crystal methamphetamine and cannabis in this context. There were a variety of issues nominated as the main issue including acute physical problems, dependence/addiction, social or relationship issues, and long-term depression/anxiety. It must be emphasised that of those that did access these services, sample size was extremely small and therefore must be viewed objectively.

Data from the AIHW reveals a total of 8,847 treatment episodes for clients’ own drug usage in WA during the 2009/10 period. Of these, the most common principal drug of concern was alcohol which accounted for 49.3% of all treatment episodes. Cannabis accounted for 18.6%, amphetamines for 14.2% and ecstasy for 0.8% (AIHW, 2011b).

The WA ADIS provides a telephone information and referral service in WA. As such, calls to ADIS provide a general indicator of the levels of use and concerns experienced by users of different drugs. During the 2010/11 period ADIS received a total of 21,236 calls.

In the 2010/11 period, there were 35 calls to ADIS concerning ecstasy as the primary drug of concern compared with 92 calls the previous year. These calls comprised 0.16% of all calls received by ADIS during 2010/11. Calls to ADIS involving ecstasy as the primary drug of concern are presented by quarter in Figure 27. Although these calls have been trending downward since early 2009, the sudden drop between the fourth quarter of 2010 and the first quarter of 2011 is likely reflective of user comments concerning poor purity and availability during that period.

**Figure 27: Number of ADIS inquiries concerning ecstasy as primary drug of concern, WA January 2000 to June 2011**

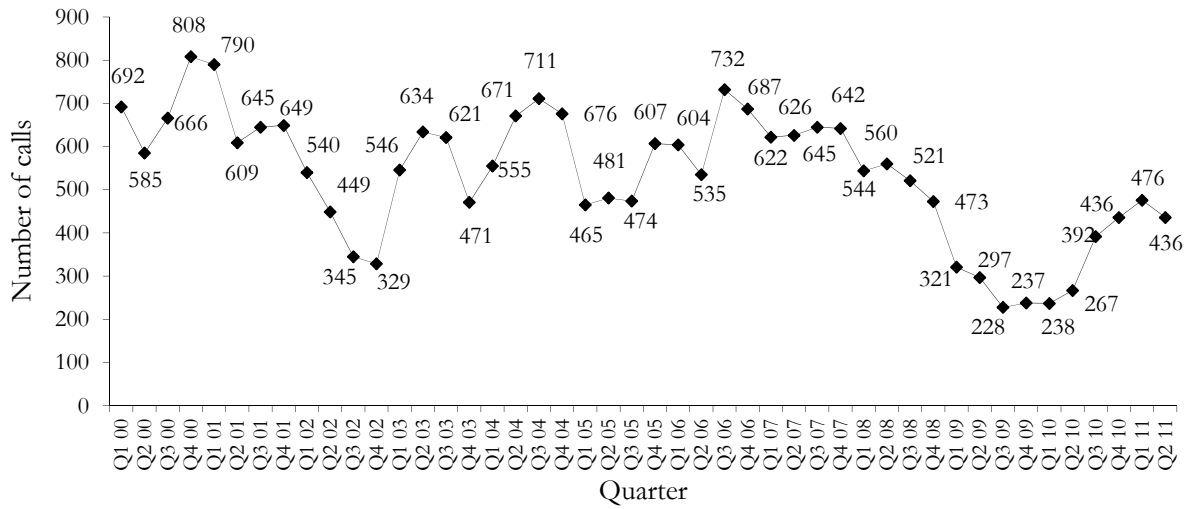


**Source: WA ADIS**

In the 2010/11 period, there were 1,740 calls to ADIS concerning (meth)amphetamines as the primary drug of concern compared with 970 calls the previous year. These calls comprised 8.2% of all calls received by ADIS during 2010/11. Calls to ADIS involving (meth)amphetamine as the primary drug of concern are presented by quarter in Figure 28. On the whole, the number of amphetamine-related calls to ADIS has increased during 2010/11, returning to levels last seen in 2008 although remaining lower than those recorded in earlier years.

A KE from ADIS reported an increase in calls concerning all forms of amphetamine although the powder form may be becoming less problematic. They also noted that amphetamine users were “often frightened or reluctant to seek help, believing that they didn’t need assistance and would stop on their own”. They also noted that “there is not a lot of understanding in the community concerning amphetamines and mental health issues scare people”.

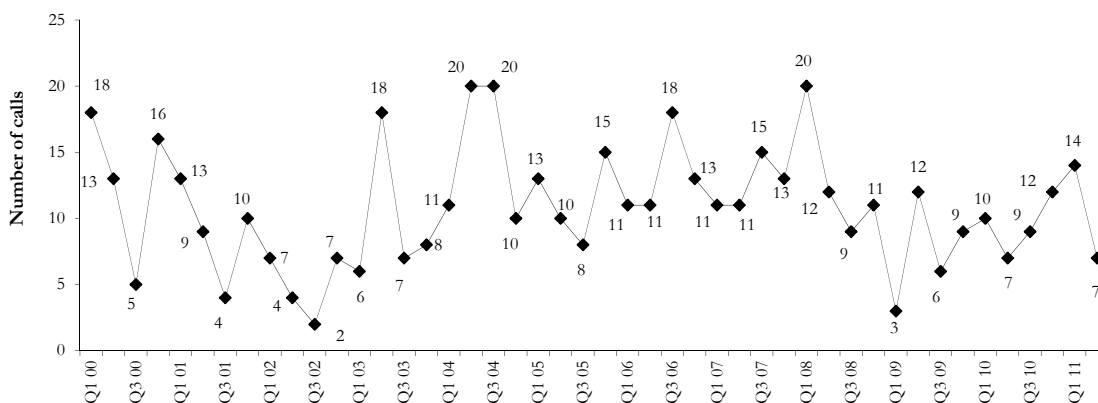
**Figure 28: Number of ADIS inquiries concerning (meth)amphetamines as primary drug of concern, WA January 2000 to June 2011**



**Source: WA ADIS**

In the 2010/11 period, there were 42 calls to ADIS concerning cocaine as the primary drug of concern compared with 32 calls the previous year. These calls comprised 0.2% of all calls received by ADIS during 2010/11. Although this percentage remains very low, a KE from ADIS observed that this had effectively doubled since the previous year. Calls to ADIS involving cocaine as the primary drug of concern are presented by quarter in Figure 29. Although the number of calls involving cocaine increased throughout the first three quarters of 2010/11, they have since fallen again and number calls concerning cocaine as the primary drug of concern remain relatively low.

**Figure 29: Number of ADIS inquiries concerning cocaine as primary drug of concern, WA January 2000 to June 2011**



**Source: WA ADIS**

### 6.3. Other self-reported problems

In previous years, EDRS respondents were asked if they perceived their use of ERD to cause any relationship/social, financial, legal/police and/or work/study problems in the last six months. Since 2007, this has been changed to problems in “social”, “legal”, “risk” and “responsibility” domains (see Table 18).

The most common problem reported was in the area of “responsibility” (54%, n=15). This was followed by 46% (n=13) nominating “risk”, 43% (n=12) nominating “social”, and a small proportion reporting “legal” problems (11%, n=3). Across all problem domains, alcohol was by far the most frequently implicated main drug involved. It is likely that the frequency with which ecstasy is implicated here has been affected by regular consumption of ecstasy being a prerequisite for participation in the survey.

**Table 18: Self-reported drug-related problems and main drug implicated, 2011**

	Any drug (N=28) <sup>#</sup>	Ecstasy (%) <sup>*</sup>	Speed (%) <sup>*</sup>	Crystal (%) <sup>*</sup>	Cannabis (%) <sup>*</sup>	Alcohol (%) <sup>*</sup>	Misc. (%) <sup>*</sup>
Social (%)	43 (n=12)	17	0	8	25	42	8 (pharmaceutical stimulants)
Legal (%)	11 (n=3)	0	0	0	0	67	33 (other opiates)
Risk (%)	46 (n=13)	8	0	0	8	77	8 (LSD)
Responsibility (%)	54 (n=15)	13	0	7	20	60	0

Source: WA EDRS REU interviews, 2011

\* Of those who nominated the problem

# Respondents could select multiple categories of problems allowing percentage totals to exceed 100

### 6.4. Hospital admissions

One KE, a clinical nurse based in hospitals, reported unusual symptoms associated with cannabis use including hypertension and vomiting, speculating that this maybe “*something with the way it is grown*”, but also noting that the phenomenon was “*not well understood and had not been observed in other hospitals around Perth*”.

Secondary indicator data relating to drug-related hospital admissions was not available at the time of writing.

### 6.5. Mental health problems

#### 6.5.1. Mental health problems and psychological distress (K10)

The Kessler 10 (K10) was administered to obtain a measure of psychological distress. It is a 10-item standardised measure that has been found to have good psychometric properties and to identify clinical levels of psychological distress as measured by the Diagnostic and Statistical Manual of Mental Disorders IV (DSM-IV)/the Structured Clinical Interview for DSM disorders (Andrews & Slade, 2001; Furukawa et al., 2003).

The minimum score on the K10 is 10 (indicating no distress) and the maximum is 50 (indicating very high psychological distress). Work conducted at the Clinical Research Unit

for Anxiety Disorders found that those scoring 30 or more have 10 times the population risk of meeting criteria for an anxiety or depressive disorder.

The K10 was included in the EDRS for the first time in 2006. Of the 28 respondents in 2011, the most common category was no or low distress (score of 10-15) scored by 46% (n=13) of REU responding. This was followed by medium psychological distress (score of 16-21) scored by 25% (n=7), and high psychological distress (score of 22-29) scored by 21% (n=6). Very high levels of distress (score 30-50) was scored by just 7% (n=2) of REU.

One KE, a youth worker, reported concern about widespread cannabis use amongst their clientele due to “*misconceptions and lack of knowledge on its potential effects on mental health*”. They also noted issues with anxiety and panic attacks at festivals. Another KE from the WA ADIS noted that (meth)amphetamine users calling the service were often “*very loopy*”.

### **6.5.2. Self-reported mental problems and medication**

Questions regarding mental health problems were included for the first time in the 2008 EDRS. Participants were asked whether they had had any self-reported mental health problems in the last six months, including those issues that they hadn't spoken to a health professional about. From the current sample of REU, just 14% (n=4) of respondents reported having had mental health problems in the past six months. These problems included two reports of depression, two of anxiety, two of paranoia, and individual mentions of obsessive-compulsive disorder, and drug induced psychosis. Only one of these four respondents (25%) reported having seen a mental health professional in relation to these problems. This respondent reported having been prescribed the antidepressant reboxetine and the benzodiazepines diazepam and oxazepam.

## **6.6. The Alcohol Use Disorders Identification Test (AUDIT)**

The AUDIT (Saunders et al. 1993) was completed by REU participants in 2010. The AUDIT was designed by the World Health Organization (WHO) as a brief screening scale to identify individuals with alcohol problems, including those in early stages. It is a 10-item scale, designed to assess three conceptual domains: alcohol intake, dependence, and adverse consequences (Reinert & Allen, 2002). Total scores of eight or more are recommended as indicators of hazardous and harmful alcohol use and may also indicate alcohol dependence (Babor et al., 1992). Higher scores indicate greater likelihood of hazardous and harmful drinking; such scores may also reflect greater severity of alcohol problems and dependence, as well as a greater need for more intensive treatment (Babor & Higgins-Biddle, 2000).

In the 2011 WA EDRS sample the mean AUDIT score was 16 (range=1-35). There were 23 REU (82%) who scored higher than the cut off of eight, indicating hazardous or harmful alcohol use. For the 19 male REU, the mean AUDIT score was 17 (range=2-35) with 17 respondents (90%) scoring above the cut off for hazardous or harmful alcohol use. Among the nine female REU, the mean AUDIT score was 13 (range=1-28) with six respondents (67%) scoring higher than the cut off for harmful or hazardous alcohol use.



## 6.7. Summary of health-related trends

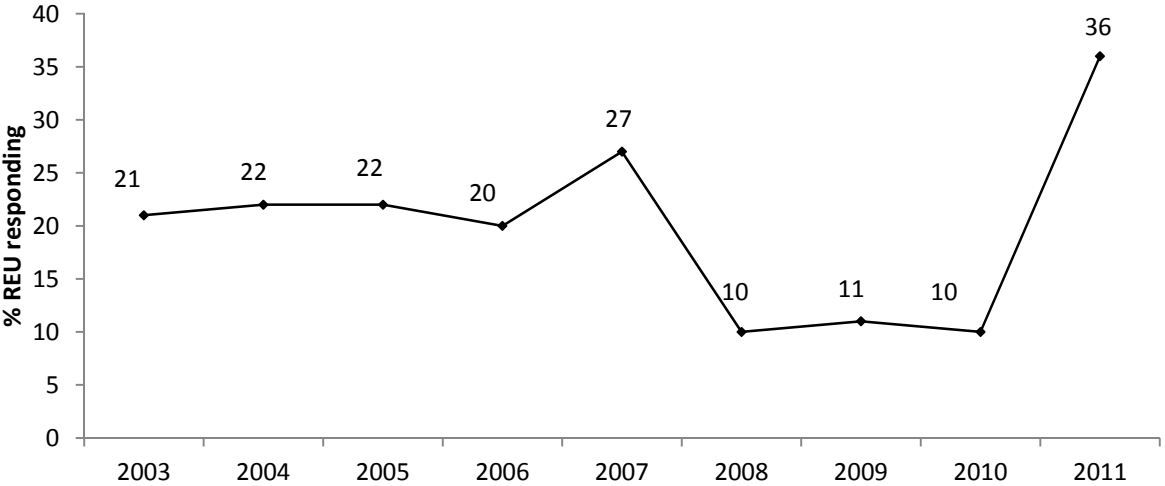
- In the past year overdose on a stimulant drug was reported by 46% and overdose on a depressant drug by 36%. Ecstasy was the most commonly implicated stimulant drug and alcohol the most commonly implicated depressant.
- Access to medical or health services in relation to their drug use in the past six months was reported by 18%.
- The number of calls to ADIS concerning ecstasy was extremely low, supporting REU data that availability and use of ecstasy in Perth during 2010/11 was very limited. Calls concerning methamphetamine had increased. Calls concerning cocaine remained extremely uncommon.
- Alcohol was by far the most commonly implicated substance for problems in the domains of social, legal, risk and responsibility.
- None to low psychological stress was found in 46% of REU, followed by medium distress in 25% and high distress in 21%. Very high distress was found in just 7% (n=2).
- Using the Severity of Dependence Scale, 21% of REU were found have a dependency of ecstasy.
- Using the AUDIT, "hazardous or harmful" alcohol use was found in 90% of male REU and in 67% of females.

# 7. RISK BEHAVIOURS

## 7.1. Injecting risk behaviours

A lifetime history of having ever injected drugs was reported by 36% (n=10) of the 2011 WA EDRS sample. Of these, 70% (n=7) reported having injected in the six months prior to survey. These very high frequencies of injection are almost certainly a result of skewing of the 2011 sample by regular IDU and their influence on the findings rendered disproportionately great by the small sample size. As such, these figures are highly unlikely to reflect genuine trends among Perth REU. With this in mind, all findings relating to injecting by the 2011 WA REU sample need to be interpreted with caution. Figure 30 illustrates the disparity between reported injection rates in the 2011 survey and those found in previous years.

**Figure 30: History of reporting having ever injected drugs amongst WA REU samples, 2003-2011**



Source: WA EDRS surveys, 2003-2011

### 7.1.1. Lifetime injectors

#### *Context of initiation to injecting*

Of those who had injected in their lifetime, 80% (n=8) were male. The mean age of these lifetime injectors was 32 years (range=19-42) in contrast to the mean age of 27 years for the entire sample.

#### *Patterns of injecting drug use*

Table 19 presents figures for the types of drugs injected among those in the current sample who reported lifetime and recent injection. Lifetime injectors (n=10) had injected a range of drugs, with the most common drug ever injected being crystal methamphetamine with 90% (n=9), followed by speed, ecstasy pills and heroin reported by 60% (n=6) of lifetime injectors.

**Table 19: Injecting drug use history among REU injectors, 2011**

<b>Drug</b>	<b>Ever injected (%) n=10</b>	<b>Recently injected (%) n=7</b>
Speed	60	67
Crystal	90	71
Base	50	14
Ecstasy pills	60	0
Heroin	60	43
Methadone	10	0
Pharmaceutical stimulants(illicit)	20	29
Cocaine	20	0
Buprenorphine	10	14
Other opiates	30	0

**Source: WA EDRS REU interviews, 2011**

### **7.1.2. Recent injectors**

#### *Patterns of injecting drug use*

Of the seven respondents who reported injecting in the last six months, five were male and two were female, and their average age was 35 years (range=19-42). In the last six months, 71% (n=5) reported injecting crystal methamphetamine, 67% (n=5), reported injecting speed, and 43% reported injecting heroin. Mean days of use was 44 days (range=5-100), equating to injecting on a more than weekly but less than daily basis. Of those who responded to the question of where they had last injected, 50% (n=3) reported that it had been in their own home, 33% (n=2) reported being at a friend's home and one respondent had last injected in a car. Injecting while both under the influence and coming down was reported by 50% (n=3) and injecting while coming down was reported by a further 33% (n=2). Interestingly, there were no reports of recent injection of ecstasy, despite regular ecstasy use being a prerequisite of participation in the survey. This suggests that these IDU may not be primarily ecstasy users and their drug using behaviours are unlikely to be reflective of the wider REU culture.

#### *Injecting risk behaviour*

Among the seven respondents who reported injecting in the previous six months, there were no reports of having used a needle or syringe after another person had already used it. The sole report of having shared other injecting equipment came from one respondent who reported having used a spoon after someone else. Due to the extremely small sample of six recent injectors, interpretation of this data should be done with caution.

#### *Obtaining needles*

The greatest proportion of the recent injecting respondents reported obtaining needles from a chemist reported by 57% (n=4) of recent injectors. This was followed by 43% (n=3) who reported obtaining needles from a needle and syringe exchange. Obtaining needles from a hospital was reported by one respondent. However, these findings should be interpreted with caution due to the small number of respondents.

#### *Social contexts of injecting*

Respondents who had recently injected were asked who they usually injected in the company of. The most common responses both given by 33% (n=2) were with close friends or alone. Individual respondents also reported that they typically injected in the company of regular sex partners, or acquaintances.

## 7.2. Blood-borne viral infections (BBVI)

Fifty percent of the sample (n=14) reported that they have been vaccinated for Hepatitis B (HBV) and a further 7% (n=2) reported that they had been vaccinated but had not finished the schedule. There was also 11% (n=3) who didn't know if they had been vaccinated. The most common reason for vaccination given by 44 (n=7) was "going overseas", followed by "vaccinated as a child" and "work", both given by 19% (n=3). Individual respondents also mentioned vaccination "in prison", that they had "contact" (presumably with a person known to be infected) or that they couldn't remember.

Participants were asked if they had been tested for hepatitis C virus (HCV). Having been tested within the last year was reported by 15% (n=4) and having been tested more than one year ago by 37% (n=10). Never having been tested was reported by 33% (n=9), and 15% (n=4) either didn't know or hadn't collected their results. Among those who had ever injected, 22% (n=2) had been tested in the past year, 44% (n=4) had last been tested over a year ago, 22% (n=2) had never been tested and one individual either didn't know or had not collected their test result. There were two individuals who reported that they were positive for HCV. Both of these respondents had a history of injecting drugs.

Participants were asked if they had been tested for human immunodeficiency virus (HIV). Of the sample, 50% (n=14) had never been tested for HIV, 21% (n=6) had been tested in the last year, 25% (n=7) had last been tested over a year ago and one individual either didn't know or had not collected their test results. No participants reported that they were HIV positive.

Thirty-six percent (n=10) of the sample reported having a sexual health check-up (such as a swab, urine, or other blood test) in the past year, while 25% (n=7) reported having had their last sexual health check-up more than one year ago. Thirty-six percent (n=10) had never had a sexual health check-up.

The majority (93%, n=26) reported that they had never been diagnosed with a sexually transmitted infection (STI). Just one respondent reported having ever been diagnosed with an STI, being genital warts (HPV), but over a year ago.

### 7.3. Sexual risk behaviour

Penetrative sex was defined as penetration with penis or hand of the vagina or anus. Casual partner was defined as referring to anyone participants had penetrative sex with who is not a regular partner. Given the sensitive nature of these questions, participants were given the option of self-completing this section of the questionnaire.

#### *Recent sexual activity*

Asked about the number of casual partners they had had penetrative sex with in the last six months, 27 REU responded; 33% (n=9) reported having just one partner and 26% (n=7) had not had sex with a casual partner in that time. Casual sex with two partners was reported by 7% (n=2), with three to five people by 26% (n=7) and the two remaining individuals reported having casual sex with six to 10 partners, and in excess of 10 partners respectively.

#### *Drug use during sex*

Of those 20 who had had casual sex in the previous six months, 95% (n=19) reported having done so whilst under the influence of alcohol or drugs. This behaviour was typically reported three to five times in the last six months (53%, n=10). The most common drugs used were alcohol (90%, n=17), cannabis (37%, n=7) and ecstasy (21%, n=4). A complete breakdown of this data is shown in Table 20.

**Table 20: Drug use during casual sex in the preceding six months, 2011**

	2011 (n=20)
<b>Penetrative casual sex while on drugs* (%)</b>	95
<i>Of those who had penetrative casual sex under the influence of drugs</i>	(n=19)
<b>Number of times (%)</b>	
Once	11
Twice	16
3-5 times	53
6-10 times	5
Ten +	16
<b>Drug used (%)</b>	(n=19)
Ecstasy	21
Cannabis	37
Alcohol	90
Speed	11
Crystal	16
Cocaine	5
Pharmaceutical stimulants	5
LSD	5
Heroin	5
Benzodiazepines	5

**Source: WA EDRS REU interviews, 2011**

\* Of those who had penetrative sex in the last 6 months

Asked whether a protective barrier (i.e., condoms or dams) had been used with the last casual sex partner while on drugs, 37% (n=7) indicated that they had not. Three respondents said this was because neither partner had wanted to, two said they were using other contraception, one mentioned a lack of availability, and one said because they were too intoxicated. Asked about whether a protective barrier had been used with the last casual sex

partner when sober, seven respondents again said they had not. Again, the most common reason given by three respondents was neither partner wanted to, followed by “it wasn’t mentioned” given by two respondents. Individual respondents also gave reasons of lack of availability and using other contraception.

#### **7.4. Driving risk behaviour**

In 2011, 61% (n=17) of respondents reported driving a car in the last six months. Of these, 77% (n=13) reported having driven under the influence of alcohol in the last six months with 77% (n=10) reporting to have driven over the legal alcohol limit.

The median number of times during the last six months respondents had driven over the alcohol limit was two times (range=1-20). While driving over the limit, three respondents had been on a provisional licence and one did not have a licence. Of all those who had driven a car in the last six months, 59% (n=10) reported having been breathalysed in the last six months; of these, just one respondent reported being over the legal blood alcohol limit when tested.

Driving soon after taking a drug was reported by 53% (n=9) of those who had driven a car in the last six months. The median number of times reported was eight times (range=1-48). The most commonly reported drugs used prior to driving were cannabis (56%, n=5) and ecstasy (44%, n=4). A full breakdown in this data is presented in Table 21. The median number of hours after which respondents reported driving after consuming drugs was one and a half hours (range=0-6).

**Table 21: Drug driving in the last six months among REU, 2010**

	2009 N=100	2010 N=100	2011 N=28
Driven a car in last 6 months (%)	80	84	61
Driven under influence of alcohol <sup>#</sup> (%)	69	61	77
Driven soon after* taking a drug <sup>#</sup> (%)	75	58	53
<b>Of those who'd driven soon after</b>	<b>(n=60)</b>	<b>(n=49)</b>	<b>(n=9)</b>
<b>Drug (%)</b>			
Ecstasy	72	71	44
Cannabis	63	55	56
Speed	12	18	0
Crystal	12	18	22
LSD	10	6	22
Pharmaceutical stimulants	7	4	22
Cocaine	7	16	0
Benzodiazepines	3	0	0
Mushrooms	2	0	0
Nitrous oxide	2	2	11
Heroin	0	0	11
Base	0	0	0
Other opiates	-	2	0
Salvia	-	-	11

**Source: WA EDRS REU interviews, 2009-2011**

\* Within one hour of taking

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

- Data not collected

Asked why they had driven after consuming drugs, “believing they would not be caught”, “believed their driving to be unaffected” and “unplanned drug use” were each given by four respondents. “Not willing to catch public transport” or “unable to catch public transport” were both given by two respondents. Respondents who reported driving after drug use were asked about their perceived level of impairment and the risk of accident. Of these, 56% (n=5) thought their driving to be slightly impaired, 11% (n=1) to be quite impaired and 33% (n=3) thought there was no impact on their driving ability.

Drug driving testing was introduced in WA in October 2007 to allow police to randomly stop motorists and motorcyclists and test them for illicit drugs. Since the 2008 EDRS, REU have been asked if they had ever been tested for drug driving by the police roadside drug testing, but from the current sample just three respondents who had recently driven (18%) reported to have been tested for drug driving in the last six months. Two of these had been tested once and the third had been tested more than once. All tests returned a negative result.

All REU were asked how they saw the relative dangers of various drugs in either being involved in a vehicle accident or in being caught driving under the influence. Alcohol was perceived as the most dangerous drug with 79% (n=22) of respondents describing these

outcomes as either likely or very likely. This data is presented in table 22. Conversely, methamphetamine was viewed as the safest drug with regards to accidents with 29% (n=8) saying this outcome was either unlikely or very unlikely and cannabis was seen as safest for not being detected driving under the influence with 36% (n=10) saying this outcome was either likely or very unlikely.

**Table 22: REU perceptions that when driving after taking drugs a car accident or being caught DUI was likely or very likely (N=28)**

Drug	Accident	Caught DUI
Alcohol	79	79
Ecstasy	54	61
Methamphetamine	39	57
Cannabis	50	46

Source: WA EDRS REU interviews, 2011

**7.5. Bingeing behaviour**

Bingeing behaviour is defined as use of stimulants for more than 48 hours without sleep. In the current 2011 sample, 54% (n=15) reported bingeing on ERD in the last six months. Those reporting bingeing on any stimulant or party drug in the 2011 sample reported a median of three occasions (range=1-15) during this six-month period. The median length of respondents' longest binge was 60 hours (range=48-168). The most common drug associated with bingeing was ecstasy, nominated by 73% (n=11) of those who had binged. However, this result is likely to have been affected by regular ecstasy use being a prerequisite for participation in the survey, and so should be interpreted with caution. The next most common substance was crystal methamphetamine, nominated by 40% (n=6), followed by pharmaceutical stimulants (27%, n=4) and powder methamphetamine (20%, n=3).



## 7.6. Summary of risk behaviour

- Numbers reporting lifetime and recent injection were unusually high, but this is almost certainly misleading and a result of recruitment of regular IDU into the very small REU sample.
- Crystal methamphetamine was the most commonly injected drug.
- Among the seven recent injectors, there were no reports of using a needle or syringe after someone else.
- Half the sample had been vaccinated for HBV. A third of the sample had never been tested for HCV and half had never been tested for HIV. No participants reported being HIV positive.
- Penetrative sex with a casual partner in the six months preceding interview was reported by 71%, most commonly with a single casual partner (33%).
- Of those who had had casual sex, 95% had done so while using drugs and, of these respondents, most commonly alcohol (90%) followed by cannabis (37%). Of these respondents, 37% reported not using a protective barrier with their last casual partner.
- Of those participants who had driven a car in the last six months, 77% had done so under the influence of alcohol and 53% had done so within an hour of taking a drug or drugs. The most common drugs consumed prior to driving were cannabis (56%) and ecstasy (44%).
- Binge ecstasy use in the previous six months was reported by 54% of the sample.

## 8. LAW ENFORCEMENT-RELATED TRENDS ASSOCIATED WITH ECSTASY AND RELATED DRUG USE

### 8.1. Reports of criminal activity among REU

Asked if they had been arrested in the past 12 months, 18% (n=5) of REU reported that they had. These included two REU arrested for violent crimes, and individuals arrested for property crime, public order offence (drunk and disorderly) and trespassing. With regards to criminal activity in the past month, 39% (n=11) reported involvement in any form of criminal activity. Amongst these REU, the most commonly reported form of criminal activity was dealing drugs for profit, reported by 73% (n=8). Involvement in property crime was reported by 27% (n=3). Fraud and violent crime were each reported by just two REU. The most typical frequency of criminal involvement was less than once per week (i.e., a maximum of three occasions in the past month). There were no reports of criminal involvement at a frequency higher than once per week (i.e., a maximum of four occasions in the past month). Figures for involvement in criminal activity amongst the entire REU sample from 2003 to 2011 are displayed in Table 23. Due to the very small size of the 2011 sample, these figures must be interpreted with caution.

**Table 23: Criminal activity in the past month reported by REU, 2003-2011**

<b>Criminal activity in the last month</b>	<b>2003 N=100</b>	<b>2004 N=100</b>	<b>2005 N=100</b>	<b>2006 N=100</b>	<b>2007 N=100</b>	<b>2008 N=58</b>	<b>2009 N=100</b>	<b>2010 N=100</b>	<b>2011 N=28</b>
Any crime (%)	38	30	32	26	39	31	38	35	<b>39</b>
Drug dealing (%)	36	25	24	23	31	24	32	24	<b>21</b>
Property crime (%)	5	10	9	9	16	7	6	13	<b>11</b>
Fraud (%)	2	4	6	2	4	2	0	2	<b>7</b>
Violent crime (%)	0	4	2	1	5	3	3	3	<b>7</b>
<b>Arrested last 12 months (%)</b>	<b>9</b>	<b>13</b>	<b>14</b>	<b>14</b>	<b>12</b>	<b>5</b>	<b>19</b>	<b>13</b>	<b>18</b>

Source: WA PDI/EDRS REU interviews, 2003-2011

Just one REU reported that they had been under the influence of drugs during their most recent property crime. The drugs involved were alcohol and cannabis. For the three REU admitting involvement in property crime, the specific crimes were theft, shoplifting and vandalism. Just one REU reported that their last violent crime had been committed under the influence of drugs, the drug involved being alcohol. For both REU admitting involvement in violent crime, the crime in question was assault.

In WA during 2009/10 there was a total of 8,877 drug-related arrests for consumer offences and 2,144 provider offences. In addition there were 1,391 cannabis

infringement notices (CINs) issued for cannabis possession. Table 24 details number of offences by drugs relevant to the EDRS.

**Table 24: Consumer and provider arrests by drug type, 2009/10**

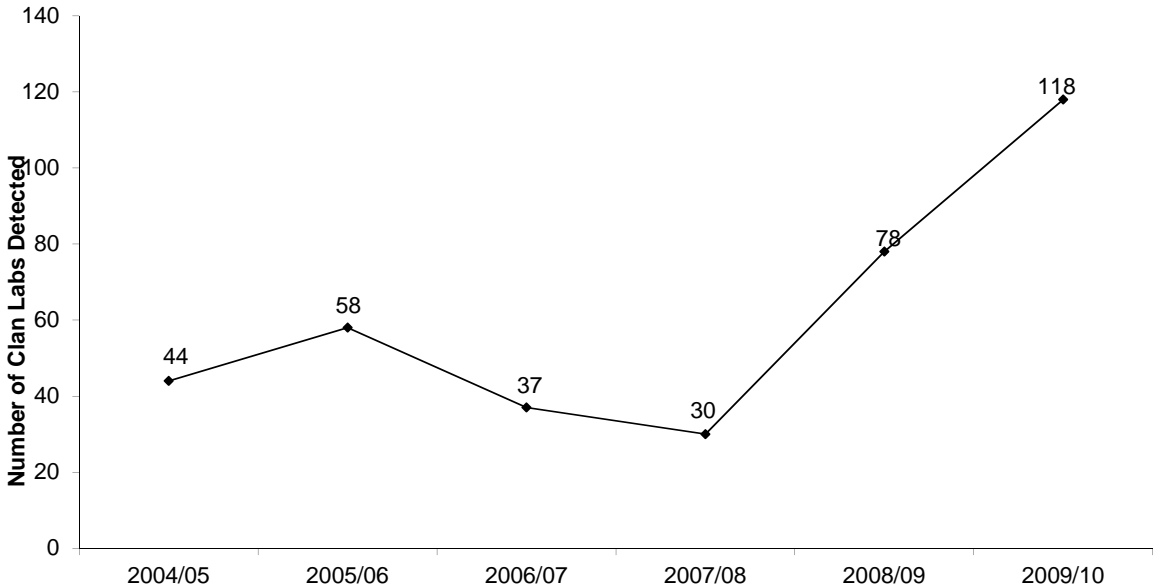
Drug	Consumer Arrests	Provider Arrests	Total
ATS	1,474	716	2,190
Cannabis	5,433	841	6,274
Cocaine	35	45	80
Hallucinogens	73	42	115

Source: ACC, 2011

In 2009/10, the number of clandestine laboratories detected in WA increased from 78 to 118, a figure exceeded only by Queensland with 297. Of these 118 labs, 93% (n=112) were manufacturing amphetamine type substances other than MDMA (see Figure 31).

These figures may be continuing to increase, with one KE from the law enforcement sector interviewed in September 2011 reporting that a further 136 clandestine laboratories had been detected in WA since January 2011 and nominating “*improvised drug manufacture sites*” as one of the biggest current concerns. This KE also noted that as the price of methamphetamine was higher in WA than in other Australian jurisdictions, more users were trying to manufacture their own drugs. A second KE from law enforcement supported this, indicating that most clandestine laboratories detected were small operations making only a few grams at a time. This second KE also observed that in Western Australia, methamphetamine manufacture is now almost exclusively undertaken using the “*NAZI method*” (i.e., involving red phosphorous and ammonia) and expressed concern due to the volatile nature of the chemicals involved and the risk of fires and explosions in clandestine laboratories.

**Figure 31: Number of clandestine (meth)amphetamine laboratories detected by WA police 2004/05-2009/10**



Source: ACC, 2006-2011

### 8.2. REU’s perceptions of police activity

Asked about their perceptions of police activity towards REU in the past six months, 36% (n=10) described it as stable, 29% (n=8) believed it had increased and the remaining 36% (n=10) didn’t know. This data is shown in Table 25.

**Table 25: Perceptions of police activity by REU, 2003-2011**

<b>Recent police activity</b>	2003 N=100	2004 N=100	2005 N=100	2006 N=100	2007 N=100	2008 N=58	2009 N=100	2010 N=100	<b>2011 N=28</b>
Decreased	6	4	0	0	6	0	0	2	<b>0</b>
Stable	34	38	36	41	33	35	22	34	<b>36</b>
Increased	29	29	43	34	24	26	42	37	<b>29</b>
Don't know	31	29	21	25	37	39	36	27	<b>36</b>

Source: WA PDI/EDRS REU interviews, 2003-2011

### 8.3. Summary of law enforcement-related issues

- Involvement in any criminal activity was reported by 39% of REU in the 2011 survey.
- Of these respondents, drug dealing remained the most common activity reported (21%).
- Eighteen respondents had been arrested in the previous 12 months.
- During 2009/10 there were 8,877 drug related consumer arrests and 2,144 provider arrests. The most commonly involved drug for both types was cannabis.
- There were 118 clandestine laboratories detected during 2009/10 compared with 78 the previous year.
- Of respondents who could answer, most (36%) believed law enforcement towards REU had remained stable in the past six months.

## 9. SPECIAL TOPICS OF INTEREST

### 9.1. Heavy Smoking Index – nicotine dependence

For the first time in 2011, EDRS participants who smoked daily were asked two questions from the Fagerstrom test for nicotine dependence, known as the Heavy Smoking Index (HSI). These questions included “*How soon after waking do you smoke your first cigarette?*” and “*How many cigarettes a day do you smoke?*” The responses were then scored between zero and six. A score of zero is no dependence, 1-2 is very low dependence, 3 is low to moderate dependence, 4 indicates moderate dependence, and 5 or above means a high dependence (Heatherton et al., 1989). Characteristics of tobacco smokers in the WA 2011 EDRS sample are displayed in Table 26.

**Table 26: Characteristics of tobacco smokers among WA REU, 2011**

	WA 2011 EDRS (N=15)
<b>Time from waking to first cigarette</b>	
Within 5 minutes (%)	40
5-30 mins (%)	13
31-60 mins (%)	27
60+ mins (%)	20
<b>Number of cigarettes smoked a day</b>	
10 or less (%)	47
11-20 (%)	40
21-30 (%)	13
31 or more (%)	0
<b>Nicotine dependence</b>	
No dependence (%)	7
Very low (%)	40
Low to moderate (%)	20
Moderate (%)	27
High (%)	7
<b>Mean score</b>	<b>2.4</b>

Source: WA EDRS survey, 2011

### 9.2. Pleasure and Quality of Life

There is need to understand more about the extent to which drug use fits into the broader life experiences of the individuals who use drugs. Repeated studies of community samples suggest that family life, close personal relationships and social networks are important factors which are associated with a better or worse quality of life (QOL) (e.g., Myers & Diener, 1996). Little is known about how a person’s QOL might be influenced by their drug use; although there is reason to suspect the effect may be negative (Ventegodt & Merrick, 2003), possibly because drug use can have a negative impact on family life and social networks.

Drugs are used to enhance the pleasure of the user. The type of pleasure may vary with the drug involved but it would seem evident that using drugs is intended to achieve a particular desired experience (relaxation, stimulation, a feeling of warmth and disinhibition). However, there have been few studies which have documented the extent to which actual use is associated with greater pleasure. Pleasure itself is associated with some related concepts. Thus experiences of pleasure should lead to greater happiness which, in turn, should lead to a better QOL. Of course, it is possible that some activities which lead to pleasure may reduce happiness (happiness being a long-term experience) and even the QOL. It is possible that drug use enhances the experience of pleasure, has little impact on happiness, and has a negative impact on the QOL.

The scales were constructed from interview data with university students and involved respondents reporting the most important things that influence their pleasure, happiness and QOL. Participants were first asked to rate their QOL as a whole on the scale below.

Very bad 0 1 2 3 4 5 6 7 8 9 10 excellent  
 average

Of the 20 REU who responded, there was a mean quality of life score of eight (range=5-10).

Using the scale below, participants were then asked the contribution of 15 life aspects to each of the three concepts: pleasure, happiness, and QOL .

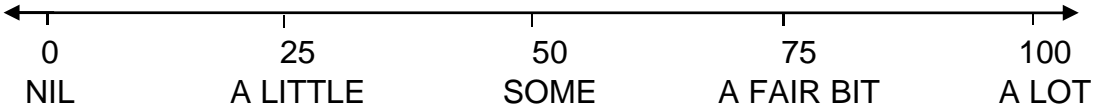


Table 27 shows the ranking and participants’ mean rating score for the contribution of these 15 life aspects to pleasure, happiness and QOL. For taking drugs, the mean contribution to pleasure was 75, to happiness 69 and to QOL 60. This downward trend across the three concepts was also reported for the normative sample of university students.

**Table 27: Self-reported ranking of life aspects that contribute to pleasure, happiness and quality of life, WA REU, 2011 (n=27)**

Ranking (mean score)	Pleasure ranking	Happiness ranking	Quality of life
Being with friends	1 (85)	1 (85)	1 (82)
Listening to music	2 (83)	3 (76)	6 (72)
Having sex	3 (81)	2 (78)	7 (70)
Eating a good meal	4 (79)	5 (73)	5 (72)
Drugs	5 (75)	8 (69)	12 (60)
Personal achievement	6 (73)	6 (72)	4 (72)
Good sleep	7 (71)	7 (70)	3 (73)
Travel to new places	8 (70)	10 (64)	10 (64)
Being with my partner	9 (69)	4 (75)	2 (77)
Cooking	10 (68)	14 (53)	14 (54)
Having lots of money	11 (64)	9 (68)	8 (68)
Being with my family	12 (64)	11 (60)	9 (67)
Drinking alcohol	13 (63)	13 (55)	15 (45)
Doing physical activity/exercise	14 (58)	12 (56)	13 (59)
Work/education/study	15 (52)	15 (50)	11 (63)

Source: WA EDRS survey, 2011

### 9.3. Online drug-related activity

For many of us, use of the internet has become part of everyday life. We use it to find out information, communicate with others, and undertake commercial transactions. Undoubtedly, those who use illicit drugs will undertake these types of activities in respect of their drug use:

“In recent years, the volume of illicit sales of narcotic drugs and psychotropic substances through websites has risen, making the internet a major source of drugs for drug abusers.” (The international Narcotics Control Board quoted in submission to the Parliamentary Joint Select Committee on Cyber-Safety by the Australian Customs and Border Protection Service, July 2010.)

However, little is known about the extent to which illicit drug users in Australia use the internet to find out information about illicit drugs, share information, and buy drugs and drug ingredients. Understanding the use of online marketing and knowledge sharing has become more pressing with the increasing trend towards so called “designer drugs” or research chemicals and drugs marketed as “legal highs”. Uninformed users may incur health and legal consequences (Schmidt et al., 2010). Not only are the drugs themselves being marketed and traded but KE in the legal sector have voiced their concern about the growing market for drug precursors:

*“People cooking for themselves – is this because of reduced availability (supply) or because recipes are so readily available on the net – similar as looking for a chocolate cake recipe. There is availability of precursors and equipment to manufacture ... don’t even need to be able to read as You-tube and videos demonstrate the process ... Internet has brought the ability to source interstate and even overseas.”*

There is huge potential for the internet and other electronic mediums to be used as a way of relating health and safety messages (Belenko et al., 2009). The success of such messages will rely heavily on an increased understanding of the online drug market.

In 2011, REU were asked about online drug-related activity. To place this activity in context, participants were first asked how often they got drugs and how often they went online (i.e., generally and not specifically about drugs). This data is displayed in Table 28.

**Table 28: Frequency of obtaining drugs and going online**

Frequency	Obtained drugs	Went online
Never	0	14
Daily	19	71
At least weekly	37	11
At least fortnightly	33	0
At least monthly	11	4

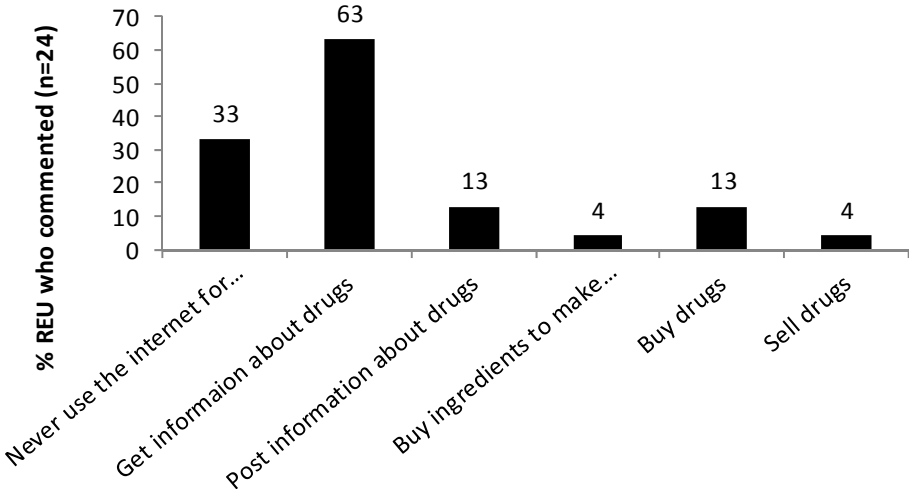
**Source: WA EDRS survey, 2011**

Of the 24 REU who responded, 33% (n=8) reported never using the internet for drug-related activities. Going online in search of information pertaining to drugs was reported by 63% (n=15). Of these, this behaviour was mostly reported by 47%(n=7) as being less than

monthly. The most commonly mentioned drug in this context was ecstasy (43%, n=6), followed by LSD (14%, n=2). Individual REU mentioned a range of other substances including GHB, benzodiazepines and pharmaceutical stimulants.

Other online activities were much less common. Going online to post information about drugs was mentioned by three REU, the drugs mentioned being ecstasy, methamphetamine and cannabis. Three REU talked about going online to buy drugs, specifically, cannabis, mephedrone (meow meow) and synthetic cannabis (“Kronic”). Just one individual talked about going online to sell cannabis and one respondent talked about going online to purchase ingredients to make unspecified drugs. A breakdown of this data is displayed in Figure 32 and Table 29.

**Figure 32: Online drug-related activity among participants in previous six months, 2011**



**Source: EDRS WA interviews, 2011**  
Note: Multiple responses permitted



**Table 29: Frequency of online drug activity in the previous six months (n=24)**

Activities	Daily	At least weekly	At least fortnightly	At least monthly	Less than monthly
Get information about drugs	0%	40% (n=6)	0%	13% (n=2)	47% (n=7)
Post information about drugs	0%	33% (n=1)	33% (n=1)	0%	33% (n=1)
Buy ingredients to make drugs	0%	0%	0%	0%	100% (n=1)
Buy drugs	0%	33% (n=1)	0%	0%	67% (n=2)
Sell drugs	0%	100% (n=1)	0%	0%	0%

**Source: WA REU survey, 2011**

Websites were the most common type of online location visited for drug-related activities, reported by 50% (n=12) of REU responding. They were most typically visited on a less than monthly basis. This was followed by search engines used by 42%, again, typically on a less than monthly basis. Online forums and Facebook had both been used by 25% (n=6) REU. Online forums were typically used at least weekly while frequency of use of Facebook showed substantial variation between respondents. A complete breakdown of this data is presented in Table 30; however, the small numbers of respondents necessitate caution in the interpretation of data related to frequencies of use.

**Table 30: Online sites used by REU for drug-related activities in the last six months (n=24)**

Site	Used in last 6 mths	Daily	At least weekly	At least fortnightly	At least monthly	Less than monthly
Web site	50% (n=12)	8% (n=1)	17% (n=2)	8% (n=1)	17% (n=2)	50% (n=6)
Search Engine	42% (n=10)	0%	30% (n=3)	0%	10% (n=1)	60% (n=6)
Online forum	25% (n=6)	17% (n=1)	50% (n=3)	17% (n=1)	0% (n=0)	17% (n=1)
Blog site	8% (n=2)	0%	0%	0%	0%	100% (n=2)
Facebook	25% (n=6)	33% (n=2)	0%	0%	33% (n=2)	33% (n=2)
MySpace	0%	0%	0%	0%	0%	0%
Twitter	0%	0%	0%	0%	0%	0%
Email	13% (n=3)	0%	0%	33% (n=1)	33% (n=1)	33% (n=1)

**Source: WA REU survey, 2011**

Asked which websites were preferred for finding out information about drugs elicited 13 responses. Erowid.org, PillReports.com and Google.com were each mentioned by three REU and Bluelight.ru and Wikipedia.org by two. Most common reasons given for why certain websites were preferred included ease of use (n=7), credible information (n=6), up-to-date information (n=6), and comprehensive information (n=6). With regards to whether information sourced online had changed their drug-using behaviour in the past year, 10 REU reported that it had not. There were four who reported having tried a drug they had not previously used. Three who reported having altered a drug dose, and three who had tried a new combination of drugs or a new route of administration.

Respondents were asked about their use of text messaging to obtain ecstasy and similar drugs. That they depended on text messaging quite a lot was reported by 32% (n=9), not very much by 25% (n=7), and completely by 18% (n=5). The remaining 25% (n=7) used it very little or not at all. Of the 20 REU who did use text messaging, 55% (n=11) indicated that it was their preferred method of obtaining ecstasy and similar drugs.

Respondents were asked if they had ever purchased substances sold as “legal highs”. This type of purchase was reported by 43% (n=12) and of these, 75% (n=9) reported having done so in the past six months.

## **9.4. Sleep patterns**

Any drug that passes the blood-brain barrier has the potential to alter the quality and/or architecture of sleep. It has been well documented that ecstasy users hold differing sleep patterns to controls (Allen et al., 1993; McCann et al. 2007; Parrott 2000, 2006; Dughiero et al., 2001; Morgan et al. 2002; Carhart-Harris et al., 2009). The areas of impact of sleep include: decreased stage 2 sleep (Allen et al., 1993; McCann et al., 2007), decreased total

sleep time (Allen et al., 1993), and trends towards decreased REM onset latency (ROL) (Allen et al., 1993; McCann et al., 2007), which have been recorded in two relatively large samples of ecstasy users. In the 2011 EDRS, additional sleep pattern questions are being asked to a sample of REU who engage in regular poly-drug use. These questions are to assess the type of sleep problems experienced within this sample, the extent to which different areas of life are being affected by sleep problems, and to examine which medications or substances are being used to treat sleep problems.

Of the 28 REU responding, most felt their quality of sleep in the past month to have been either fair (36%, n=10) or good (32%, n=9). A complete breakdown is shown in Table 31.

**Table 31: Quality of sleep as reported by REU during the past month, 2011**

Quality of sleep	Frequency (%)
Very poor	4
Poor	18
Fair	36
Good	32
Very good	4
Excellent	7

**Source: WA EDRS survey, 2011**

Ask how satisfied they felt with their amount of sleep on a scale of one to 10, with 10 being most satisfied, produced a median score of seven (range=2-10) on week days and a mean score of five (range=1-10) on weekends. A median of seven hours sleep (range=5-9) was reported on weekdays and a median of six hours (range=0-12) on weekends. A median of seven hours sleep was reported a necessary so as not to feel tired the next day. The majority (54%, n=15) did not feel they had any sort of sleep problem. Of those who did report a sleep problem, the areas of life most impacted by it were energy levels, life satisfaction and mood.

Asked if they felt that their current drug use had impacted negatively on their sleep, 58% (n=15) indicated that it had.

Only 21% (n=6) of respondents reported taking any medication to assist with sleep during the previous month, most commonly once or twice a week. The most common medication consumed was diazepam, reported by three respondents. There were also individual reports of using oxazepam, doxylamine and oxycodone.

## 9.5. Ecstasy dependence

The question as to whether it is possible to be dependent on ecstasy is a controversial one. Currently, in 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 who are dependent on ecstasy. Animal models have demonstrated that dependence on ecstasy is biologically plausible.

To date, internationally, there has been a small number of studies of 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 suggests a lifetime prevalence rate of 64% in similar types of REU interviewed in the EDRS.

In 2011, the participants in the EDRS were asked questions from the 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 (Dawe et al., 2002). 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 determine those whose scores were suggestive of dependence (Bruno, Gomez & Matthews, 2011).

There were six REU (21%) in the 2011 WA EDRS sample who scored above the dependency cut off of four, and the mean score was two (range=0-7).

## 10. GENERAL TRENDS

Asked what proportion of their friends used ecstasy in the last six months, predominant opinion was split between “most” and “about half” both being reported by 32% (n=9). That “a few” of their friends used was reported by 21% (n=6 and 14% (n=4) reported that “all” their friends use ecstasy.

There were 15 REU who answered the question of if there had been anything new happening with regards to drug use amongst themselves or their friends in the last six months. The most common responses (n=7) consisted of comments relating to a decline in ecstasy use, often in the context of reduced quality or availability. One of these observed that *“MDMA has dried up and is not worth buying”*. Another said *“There is no MDMA in Perth”*. Another common response (n=6) referred to new drugs appearing. Drugs mentioned in this context included meow meow (mephedrone), “Kronic” (synthetic cannabis, typically JWH-018 and its analogues), liquid ecstasy (presumed to refer to GHB or fantasy) and happy 5 (nimetazepam). There were also two respondents who mentioned the use of crystal methamphetamine increasing and another two who made mention of newer or younger users appearing on the scene.

## 11. IMPLICATIONS FOR RESEARCH

The WA arm of the EDRS annually attempts to recruit 100 REU in order to survey trends in WA markets for ecstasy and other substances.

This method of recruitment, however, can be problematic in the event of disruptions to the supply of ecstasy and can result in highly misleading data.

Although nearly 90 calls were received in response to recruitment advertising, only 42 were eligible to participate, based on the frequency of ecstasy use criteria, and of these 35 actually completed the survey. Seven of these surveys were discarded as the respondents did not meet the eligibility criteria, despite earlier being screened over the phone, leaving just 28 respondents in the 2011 WA EDRS.

Furthermore, it was evident that there were major differences in the demographic data between the 2010 and 2011 samples.

The 2011 WA sample was slightly older, appeared more likely to be male, all identified as heterosexual, they seemed less likely to have attained any qualifications after leaving school and more likely to be unemployed.

Other major apparent differences were observed with respect to patterns of drug use. Compared with the 2010 sample, the 2011 sample appeared more likely to have ever injected drugs, to have used heroin, likely to prefer heroin as their drug of choice, and seemed less likely to prefer ecstasy and more likely to be in treatment for their drug use.

Based on these findings, it would seem that not only did the WA 2011 EDRS experience substantial difficulty in recruiting sufficient numbers of eligible respondents, but the striking differences between the characteristics of the 2010 and 2011 samples suggest that the 2011 sample may have been skewed by a demographic other than its intended target.

The most common reason for ineligibility among people responding to recruitment advertising was that they had been not been taking ecstasy on at least a monthly basis, or acknowledged that what they had been taking was unlikely to be actual MDMA. One person who failed the screen stated that:

*"I've been searching since New Years, but there was no ecstasy around. The stuff that is around is nasty and people who used to use or sell it were staying away from it".*

Even among those who were eligible to participate, the proportion who had used ecstasy on at least a weekly basis in the past six months had fallen from 14% (n=14) in 2010 to 11% (n=3) in 2011. This is partially explained by the perceived drop in the drug's availability with the proportion reporting that ecstasy was easy or very easy to obtain being the lowest recorded since the EDRS was commenced in WA.

This is further compounded by what ecstasy is around being perceived by users as being of very poor quality, although the median price per tablet has reportedly fallen in the last year from \$35 to \$30.

Also common was people responding to recruitment advertisements, who though eligible to participate swiftly lost interest on discovering the interview could not be done over the phone or online, several commenting that the \$40 reimbursement for a face-to-face interview was "not worth their time".

It may be that in the current period of high employment in WA that \$40 is no longer a sufficient recompense for the relatively affluent drug users targeted by the EDRS.

There are, however, much less affluent types of drug user who do still appear to be attracted by the \$40 reimbursement. Judging from the participant characteristic data, these are often injecting drug users, the target sample of the IDRS survey, and although they may be technically eligible to participate in the EDRS, many of this group may be much less likely to be able to provide the type of information sought by the EDRS survey.

As a result, it is highly likely that the large increments seen in injecting rates, use of heroin, heroin as drug of choice or the number of participants currently in drug treatment in the 2011 WA EDRS sample are likely to be a function of the skewing in the 2011 sample by virtue of more recent injectors being included and are unlikely to be an accurate reflection of what is currently happening among most regular users of ecstasy.

This raises several implications for future research in the EDRS. First, it is evident that a decline in the availability and purity of ecstasy has the potential to seriously interfere with the EDRS recruitment process. It may be necessary to revisit the eligibility criteria to include other drugs. A pilot study to evaluate the feasibility of this was carried out earlier this year.

Secondly, other difficulties arise from potential respondents being unwilling to attend a face-to-face interview for only \$40. It may be worth considering alternative methods of interviewing such as online surveys. As much EDRS recruitment already occurs online this may be an appropriate method for the survey's target demographic.

Finally, the issue of regular IDU appearing in the EDRS sample has been ongoing for some years now. However, when the sample size is small as in the 2011 WA EDRS, the impact of the data they provide is disproportionate, and is almost certainly not representative of trends in the target demographic the EDRS seeks to monitor. It may be necessary to consider methods to minimise the recruitment of unintended participants.

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