

Western Australia

J. Grigg and S. Lenton

**WA TRENDS IN ECSTASY AND RELATED
DRUG MARKETS 2013**

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

NDARC Technical Report No. 124

WEST AUSTRALIAN TRENDS IN ECSTASY AND RELATED DRUG MARKETS 2013



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

Jodie Grigg and Simon Lenton

National Drug Research Institute

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TABLE OF CONTENTS

TABLE OF CONTENTS	i
LIST OF TABLES	iii
LIST OF FIGURES	v
ABBREVIATIONS	viii
GLOSSARY	x
EXECUTIVE SUMMARY	xii
1. INTRODUCTION	1
1.1. Study aims	1
2. METHOD	2
2.1. Survey of REU/RPU	2
2.2. Survey of KE	4
2.3. Other indicators.....	4
3. RESULTS.....	5
3.1. Overview of the REU/RPU sample	5
4. CONSUMPTION PATTERN RESULTS	7
4.1. Drug use history and current drug use	7
4.2. Ecstasy use.....	11
4.3. Methamphetamine use	19
4.4. Cocaine use	27
4.5. Ketamine use	31
4.6. GHB use	34
4.7. LSD use	35
4.8. Cannabis use	39
4.9. Other drugs used.....	43
4.10. New psychoactive substance (NPS) use	51
5. DRUG MARKET: PRICE, POTENCY, AVAILABILITY AND SUPPLY	63
5.1. Ecstasy.....	63
5.2. Methamphetamine	71
5.3. Cocaine	80
5.4. Ketamine	85
5.5. GHB	85
5.6. LSD	86
5.7. Cannabis	91
6. HEALTH-RELATED TRENDS ASSOCIATED WITH ECSTASY AND RELATED DRUG USE	97
6.1. Overdose and drug-related fatalities	97
6.2. Help-seeking behaviour	103

6.3.	Other self-reported problems	107
6.4.	Hospital admissions	108
6.5.	Mental health problems	111
6.6.	Summary of health-related trends	113
7.	RISK BEHAVIOURS.....	114
7.1.	Injecting risk behaviours	114
7.2.	Sexual health check ups	117
7.3.	Sexual risk behaviour	117
7.4.	Driving risk behaviour	120
7.5.	Bingeing behaviour.....	122
7.6.	The Alcohol Use Disorders Identification Test (AUDIT)	123
7.7.	Ecstasy dependence.....	124
7.8.	Summary of risk behaviour	125
8.	LAW ENFORCEMENT-RELATED TRENDS ASSOCIATED WITH ECSTASY AND RELATED DRUG USE.....	126
8.1.	Reports of criminal activity among REU/RPU	126
8.2.	Summary of law enforcement-related issues	129
9.	SPECIAL TOPICS OF INTEREST.....	130
9.1.	Exposure to Injecting Module	130
9.2.	NPS Health Module	133
9.3.	Summary of special interest topics.....	137
10.	GENERAL TRENDS.....	138
11.	REFERENCES.....	140

LIST OF TABLES

Table 1: Demographic characteristics of WA REU/RPU samples, 2003-2013	6
Table 2: Lifetime and recent polydrug use of WA REU/RPU samples, 2003-2013	8
Table 3: Patterns of ecstasy use, 2003-2013.....	12
Table 4: Patterns of methamphetamine powder (speed) use, 2003-2013.....	21
Table 5: Patterns of crystal methamphetamine use, 2003-2013.....	23
Table 6: Patterns of cocaine use, 2003-2013.....	28
Table 7: Patterns of ketamine use, 2003-2013	32
Table 8: Patterns of LSD use, 2003-2013	36
Table 9: Patterns of cannabis use, 2003-2013.....	40
Table 10: Recent illicit versus licit use of pharmaceutical stimulants, 2013 ...	45
Table 11: New psychoactive substances (NPS)	52
Table 12: Patterns of phenethylamine class of new psychoactive substances (NPS), 2010-2013	56
Table 13: Patterns of other classes of NPS, 2010-2013	58
Table 14: Patterns of synthetic cannabis use, 2010-2013.....	59
Table 15: Patterns of herbal high use, 2010-2013	61
Table 16: Price of ecstasy tablets purchased and price variations, 2003-2013	64
Table 17: Reports of ecstasy availability, 2003-2013.....	67
Table 18: Patterns of purchasing ecstasy, 2005-2013	69
Table 19: Price of various methamphetamine forms purchased, 2003-2013	71
Table 20: Price of cocaine purchased, 2003-2013.....	80
Table 21: Price of LSD purchased, 2003-2013	86
Table 22: Median price of cannabis ounce, 2006-2013.....	91
Table 23: Ever overdosed on a stimulant drug, 2013.....	97
Table 24: Recently overdosed on a stimulant drug – reported causes, 2013	98
Table 25: Recently overdosed on a stimulant drug– reported symptoms, 2013	99
Table 26: Ever overdosed on a depressant drug, 2013	100
Table 27: Recently overdosed on a depressant drug, 2013.....	101
Table 28: Recently overdosed on a depressant drug – symptoms, 2013.....	102
Table 29: Percent who accessed health services in relation to drug use, 2013	103
Table 30: Percent who accessed a health service for any issue, 2013.....	103
Table 31: Self-reported drug-related problems and main drug implicated, 2013	107
Table 32: K10 Scores, 2013.....	111
Table 33: Percent who reported recent mental health problems, 2013	112
Table 34: Injecting risk behaviours, 2013.....	114
Table 35: Recent injecting drug use patterns, 2013	115
Table 36: Context and patterns of recent injection, 2013	116
Table 37: Recent sexual activity, 2013.....	117
Table 38: Casual sex while under the influence, 2013	119
Table 39: Drug driving in the last six months, 2009-2013	121
Table 40: Bingeing behaviour, 2013.....	122

Table 41: Ecstasy dependence, 2013.....	124
Table 42: Criminal activity in the past month, 2003-2013.....	126
Table 43: Consumer and provider arrests by drug type, 2011/2012.....	127
Table 44: Exposure to injecting, 2013.....	131
Table 45: Reasons for considering injecting as an ROA, 2013.....	132
Table 46: Factors that had some influence (rated greater than '0') on whether EDRS participants used 2C-B, 2013.....	134
Table 47: Level of tolerance and properties of addiction of 2C-B, 2013	134
Table 48: Effects experienced by 2C-B, 2013	135
Table 49: Intensity of effects experienced by 2C-B, 2013.....	136
Table 50: New issues reported, 2013	139

LIST OF FIGURES

Figure 1: Location of most recent ecstasy use, 2013	15
Figure 2: Prevalence of ecstasy use among the population aged 14 years and over in Western Australia, 2001-2010	16
Figure 3: Location of most recent powder and crystal methamphetamine use, 2013	24
Figure 4: Location of most recent cocaine use, 2013.....	29
Figure 5: Location of most recent LSD use, 2013	37
Figure 6: Location of most recent cannabis use, 2013.....	41
Figure 7: Psychoactive substances investigated by the EDRS	51
Figure 8: User reports of current ecstasy potency, 2003-2013	65
Figure 9: Median purity of phenethylamines seizures in WA by quarter, July 2002 - June 2012	66
Figure 10: People from whom ecstasy was last obtained, WA 2013.....	68
Figure 11: Locations at which ecstasy was last purchased, WA 2013	68
Figure 12: Recent changes in the price of powder and crystal forms of methamphetamine, 2013.....	72
Figure 13: User reports of current methamphetamine potency, 2013	73
Figure 14: User reports of changes in methamphetamine potency in the past six months, 2013	74
Figure 15: Median purity of methylamphetamine seizures analysed in WA by quarter, July 2002 to June 2012	75
Figure 16: User reports of current availability of methamphetamine forms, 2013	76
Figure 17: Change in the availability of methamphetamine in the preceding six months, 2013	77
Figure 18: Person from whom methamphetamine was last obtained in the preceding six months, 2013	78
Figure 19: Last locations where methamphetamine was purchased in the preceding six months, 2013	78
Figure 20: User reports of recent changes in the price of cocaine, 2013	80
Figure 21: User reports of current potency of cocaine, 2013	81
Figure 22: User reports of changes in cocaine potency in the preceding six months, 2013	81
Figure 23: Median purity of cocaine seizures analysed in WA by quarter, July 2004 - June 2012.....	82
Figure 24: Current availability of cocaine, 2013	83
Figure 25: Changes in cocaine availability in the preceding six months, 2013	83
Figure 26: User reports of current LSD potency, 2013.....	87
Figure 27: User reports of changes in LSD potency in the past six months, 2013	87
Figure 28: Current availability of LSD, 2013.....	88
Figure 29: Changes in availability of LSD during the preceding six months, 2013	88
Figure 30: Person from whom LSD was last obtained, 2013	89
Figure 31: Locations from where LSD was last obtained, 2013	89
Figure 32: Recent changes in price of cannabis purchased by REU/RPU, 2013	92
Figure 33: User reports of current potency of cannabis, 2013	93

Figure 34: User reports of changes in cannabis potency in the past six months, 2013	93
Figure 35: Current availability of cannabis, 2013	94
Figure 36: Changes in cannabis availability in the preceding six months, 2013.....	94
Figure 37: Person from whom cannabis was last obtained in the preceding six months, 2013.....	95
Figure 38: Last location where cannabis was obtained in the preceding six months, 2013	95
Figure 39: Number of ADIS inquiries concerning ecstasy as primary drug of concern, WA January 2000 to June 2013	104
Figure 40: Number of ADIS inquiries concerning (meth)amphetamines as primary drug of concern, WA January 2000 to June 2013	105
Figure 41: Number of ADIS inquiries concerning cocaine as primary drug of concern, WA January 2000 – June 2013	106
Figure 42: Rate of in-patient hospital admissions where (meth)amphetamines were the primary diagnosis in persons aged 15-54 in WA and nationally, July 1993-June 2012	108
Figure 43: Rate of hospital admissions where cocaine was the primary diagnosis in persons aged 15-54 years, WA and nationally, July 1993-June 2012	109
Figure 44: Rate of hospital admissions where cannabis was the primary diagnosis in persons aged 15-54 years, WA and nationally, July 1993-June 2012	109
Figure 45: History of reporting having ever injected drugs amongst WA REU/RPU samples, 2003-2013	114
Figure 46: Number of clandestine (meth)amphetamine laboratories detected by WA police 2004/05-2011/12	128

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ABBREVIATIONS

2C-B	2,5-dimethoxy-4-bromophenethylamine
2C-E	2,5-dimethoxy-4-ethylphenethylamine
2C-I	2,5-dimethoxy-4-iodophenethylamine
5MEO-DMT	5-methoxy-dimethyltryptamine
6-APB	6-(2-aminopropyl)benzofuran
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
AOD	alcohol and other drugs
ATS	amphetamine-type stimulants
AUDIT	Alcohol Use Disorders Identification Test
BBVI	blood-borne viral infections
BZP	benzylpiperazine
CI	confidence intervals
CIN	Cannabis Infringement Notice
CNS	central nervous system
DMT	dimethyltryptamine
DSM-IV	Diagnostic and Statistical Manual of Mental Disorders IV
DOI	'death on impact'; 2,5-dimethoxy-4-iodoamphetamine
DXM	dextromethorphan
ED	Emergency Department
EDRS	Ecstasy and Related Drugs Reporting System
FIFO	fly-in-fly-out
NPS	new 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
IDDR	Illicit Drug Data Report
IDRS	Illicit Drug Reporting System
IDU	Injecting drug users
K10	KEsler Psychological Distress Scale
KE	key expert/s
LSD	<i>d</i> -lysergic acid
MDA	3,4-methylenedioxyamphetamine
MDAI	5,6-Methylenedioxy-2-aminoindane
MDEA	3,4-methylenedioxyethylamphetamine
MDMA	3,4-methylenedioxymethamphetamine
MDPV	3,4-methylenedioxypyrovalerone; ivory wave; 'bath salts'
MXE	methoxetamine or 3-MeO-2-Oxo-PCE
NBOMe	n-methoxybenzyl
NDARC	National Drug and Alcohol Research Centre
NDLERF	National Drug Law Enforcement Research Fund
NDSHS	National Drug Strategy Household Survey
NSP	needle and syringe program
OTC	over-the-counter
PASW	Predictive Analytics Software
PDI	Party Drugs Initiative

PIED	performance and image enhancing drugs
PMA	paramethoxyamphetamine
QOL	quality of life
REU	regular ecstasy user
ROA	route of administration
RPU	regular psychostimulant user
SDS	Severity of Dependence Scale
STI	sexually transmitted infection
THC	delta-9-tetrahydro-cannabinol
WA	Western Australia
WHO	World Health Organization

GLOSSARY

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

LSD	Acronym for <i>d</i> -lysergic acid diethylamide. It is a powerful hallucinogen
MDA	Acronym for 3,4-methylenedioxyamphetamine. It is classed as a stimulant hallucinogen. It is closely related to MDMA (and is sometimes found in ecstasy tablets); however, its effects are said to be slightly more psychedelic
Mephedrone	Mephedrone (2-methylamino-1-p-tolylpropane-1-one), also known as 4-methylmethcathinone (4-MMC) or 4-methylephedrone, is a stimulant and entactogen drug of the phenethylamine, amphetamine, and cathinone chemical classes
Methamphetamine	An analogue of amphetamine, it is a central nervous system stimulant. The three main forms of methamphetamine in Australia are methamphetamine powder ('speed'), methamphetamine base ('base') and crystalline methamphetamine ('crystal', 'ice')
PMA	Acronym for para-methoxyamphetamine. It is an amphetamine-type drug with both stimulant and hallucinogenic properties
Point	0.1 gram
Recent injection	Injection (typically intravenous) in the last six months
Recent use	Use in the last six months via one or more of the following routes of administration: inject; smoke; snort; swallow; and/or shaft/shelve
Shaft/shelve	Vaginal/anal administration
Tab/s	The most common form of LSD is paper blotter divided into about 1/4" squares called 'tabs'. A single tab usually contains between 30 - 100 micrograms (ug) of LSD. Paper blotters are created by taking a sheet of absorbant paper (usually decorated and perforated) and soaking it in a dilution of lysergic acid diethylamide. The dilution can vary greatly from one batch to another, or one chemist to another

EXECUTIVE SUMMARY

This report presents the results of the Western Australian Ecstasy and Related Drugs Reporting System (EDRS; formerly the Party Drugs Initiative, or PDI), 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 findings from each year not only provide a snapshot of the drug markets in WA, but also help to provide an evidence base for policy decisions, inform harm reduction messages, and provide directions for further investigation when issues of concern are detected. Continued monitoring of the ecstasy and related drug markets in WA will help add to our understanding of the use of these drugs; the price, potency and availability of these drugs and how these may impact on each other; and the associated harms which may stem from the use of these drugs.

It needs to be noted that the EDRS is not a representative sample of ecstasy/psychostimulant drug users, but rather comprises annual samples of sentinel groups of users with similar characteristics, which allow trends in drug markets to be tracked over time. The EDRS cannot provide information on rates of drug use among regular ecstasy/psychostimulant users (REU/RPU) in the general population.

The current report provides findings for the eleventh year of data collection in WA obtained from three sources:

1. Quantitative interviews with 100 current REU/RPU residing in the Perth metropolitan area;
2. Qualitative interviews with 18 key experts (KE) who have regular contact with ecstasy/psychostimulant users and are employed in areas of nightclub entertainment, health, outreach, and law enforcement; and
3. Analysis of various indicator data from health and law enforcement sources.

Demographic characteristics

For the purpose of this study, REU is a population defined by the use of ecstasy pills, powder, capsules or crystals on at least six occasions over the preceding six month period. This population was recruited for the first nine years of data collection, since the WA EDRS commenced in 2003. For the first time, in 2012 the WA EDRS expanded its selection criteria for recruitment of participants. This change was made in WA, as in some other jurisdictions, in response to difficulties experienced in the 2011 EDRS recruitment process. In 2012 the selection criteria expanded to include, both REU and RPU populations. For the purpose of this study, RPU is a population defined by the use of any psychostimulant drug/s (e.g. methamphetamine, 3,4-methylenedioxyamphetamine (MDA), cocaine, ketamine, gamma-hydroxybutyrate (GHB), LSD, or new psychoactive substances (NPS) such as 2,5-dimethoxy-4-bromophenethylamine (2C-B) and 2,5-dimethoxy-4-iodophenethylamine (2C-I)) on at least six occasions over the preceding six month period.

In 2013, in the WA EDRS:

- A total of 100 participants were recruited in 2013 (93 REU and 7 RPU);

- There were a greater proportion of males (63%) than females (36%);
- Participants were young (mean age= 20 years, compared to 23 in 2012);
- The vast majority (96%) were of English speaking background;
- The majority had completed high school (78%);
- One-third (32%) had completed a tertiary qualification, which significantly declined from two-thirds (67%) in 2012; however, further analyses controlling for age suggested that this was due to the younger age of the 2013 sample.
- The median weekly income was \$524, which significantly declined from \$634 in 2012; however, again this appeared to be due to the younger age of the sample;
- Very few participants reported being currently in drug treatment (3%); and
- These demographics have remained relatively stable over time, aside from mild variations in age, employment status, the completion of tertiary education and income.

Patterns of drug use

- Participants reported use of a wide range of drugs; having used a median of 10 different drug types during their lifetimes and 6 different drug types recently (during the preceding six-month period).
- One-in-ten reported having ever injected a drug.
- Significant increases from 2012 were seen in lifetime use of 2C-I.
- Significant increases from 2012 were seen in recent use of ecstasy capsules, cannabis and 2C-I.
- Significant decreases from 2012 were seen in lifetime use of speed, crystal methamphetamine, pharmaceutical stimulants and herbal highs.
- Significant decreases from 2012 were also seen in other opiates and magic mushrooms; however, controlling for age suggested that this was due to the younger age of the 2013 sample.
- Significant decreases were not seen from 2012 in recent use of any drugs.
- Ecstasy was the main drug of choice for more than one-third (38%) of the sample.
- More than one-third (38%) had recently binged on ecstasy and related drugs (ERD). The median number of binges that occurred during the preceding six-month period was three.
- Of the 100 participants in the 2013 sample, 93 met the REU criteria and 7 met the RPU criteria.

Drug use and markets in the 2013 EDRS

Ecstasy

Consumption patterns

- The proportion reporting ecstasy as their 'drug of choice' was 38%, comparable to 36% in 2012.
- The mean age of first ecstasy use was approximately 18 years, which has been consistent across survey years.
- A quarter of the sample (25%) reported 'weekly or more' ecstasy use, which significantly increased from 12% in 2012.
- The median number of days ecstasy was used in the preceding six-month period was 14 days, comparable to 10 days for the 2012 REU sample.
- The proportion reporting use of more than one ecstasy tablet per session was 72%, comparable to 77% in 2012.

- On a 'typical occasion', the average number of pills used was 2.2, comparable to 2 pills in 2012.
- Consistent with previous years, 'swallowing' was the main route of administration (90%).
- Pills were the most commonly reported form of ecstasy used recently (99%), followed by capsules (48%), crystals (34%) and then powder (25%).
- The use of other non-pill forms of ecstasy continues to be on an upward trend, with ecstasy capsules significantly increasing from approximately one-third in 2012 (32%) to almost half in 2013 (48%).
- In 2013, for the first time, the EDRS asked about ecstasy crystal use. Almost half the sample reported lifetime use of crystals (46%) and more than a third reported recent use (34%).
- The vast majority of participants (93%) reported using other drugs in combination with ecstasy the last time they used it, most commonly alcohol, tobacco, cannabis and pharmaceutical stimulants.
- Approximately half (49%) reported using other drugs to help them come down from ecstasy the last time they used it, most commonly cannabis, benzodiazepines and alcohol.
- Ecstasy was used in both public (68%) and private settings (32%), most commonly at nightclubs (48%).
- KE commented that ecstasy use was common among young people, as were associated adverse effects.

Market Characteristics

- *Price*: \$35 per tablet (unchanged from 2012).
- *Purity*: Currently medium and stable.
- *Availability*: Currently easy to obtain and stable.
- Consistent with 2012 findings, user perceptions of availability and potency suggested that ecstasy potency and availability may have been recovering, following suspected declines in 2011.
- Key experts believed that the purity of ecstasy had increased since 2012.

Methamphetamine

The 2013 EDRS distinguished between three different forms of methamphetamine: methamphetamine powder ('speed'); methamphetamine base ('base'); and crystal methamphetamine ('crystal').

Consumption Patterns

Speed

- Approximately one-third (36%) had used speed in their lifetime, significantly declining from 62% in 2012. Controlling for age in the sample suggested this was not due to the younger age of the 2013 sample.
- Recent use was reported by 17%, which did not significantly change from 27% in 2012.
- Among recent users, speed was used on a median of five days over the preceding six months.
- 'Swallowing' was the most common ROA reported (41%).
- Overall, the frequency and quantity of use appeared to be stable from 2012 to 2013.

Base

- Only 9% of the sample had used base in their lifetime and 0% had done so in the previous six months.

- No further analyses were performed due to the extremely small sample size.

Crystal

- Approximately one-third (32%) had used crystal in their lifetime, which significantly declined from 58% in 2012. Controlling for age in the sample suggested this was not due to the younger age of the 2013 sample.
 - Recent use was reported by one-fifth (22%), which did not significantly change from 33% in 2012.
 - Among recent users, crystal was used on a median of 6 days over the preceding six months, comparable to 4 days in 2012.
 - 'Smoking' was the most common ROA reported (32%).
 - The median amount used on a 'typical occasion' was two points with a maximum of three points.
 - Overall, the frequency and quantity of use appeared to be stable from 2012 to 2013.
- Speed and crystal were most commonly used in private settings, either at a 'friend's home' or 'own home'.
 - Many KE considered crystal methamphetamine use to be the most problematic drug-related issue at present.

Market Characteristics:

Speed

- *Price*: \$100 per point (unchanged from 2012), \$700 per gram (\$400 in 2012).
- *Purity*: Currently medium and decreasing.
- *Availability*: Currently easy to obtain and stable.
- The very small number of participants here (n=7) and in 2012 (n=12) precluded drawing any meaningful comparisons or conclusions from these data.

Base

- *Price*: No data available.
- *Purity*: No data available.
- *Availability*: No data available.

Crystal

- *Price*: \$100 per point (unchanged from 2012), \$800 per gram (\$525 in 2012).
- *Purity*: Currently medium to high and stable (high and stable in 2012).
- Findings suggested that perceptions of crystal methamphetamine potency may have been more unstable than in recent years.
- *Availability*: Currently very easy to obtain and stable (consistent with 2012).
- KE agreed that methamphetamine purity and availability remained high.

Cocaine

Consumption Patterns

- Approximately half (54%) reported lifetime use of cocaine, which significantly declined from 2012 (71%). Controlling for age suggested that this decline was not due to the younger age of the 2013 sample.
- Approximately one-third (34%) reported recent use, which was not significantly different from 2012 (31%).
- Cocaine was used on a median of four days (i.e. less than monthly) over the preceding six months, which was unchanged from 2012.
- Snorting remained the most commonly reported ROA (97%).
- Overall, the frequency and quantities of cocaine use remained relatively stable from 2012 to 2013.
- Cocaine was most commonly used at 'private parties'.
- KE reported that they believed that cocaine use was generally rare due to the expensive price to purchase it in WA.

Market Characteristics

- *Price*: \$400 per gram and stable (\$325 in 2012).
- *Purity*: Variable although generally considered low and fluctuating.
- *Availability*: Currently difficult to obtain and stable.
- The small number of participants here and in 2012 precluded drawing any meaningful comparisons or conclusions from the data.

Ketamine

Consumption Patterns

- Consistent with recent years, only a small proportion reported lifetime use of ketamine (20%) and an even smaller proportion reported recent use (7%).
- Ketamine was used on a median of two days (i.e. less than monthly) over the preceding six months.
- Snorting was the only route of administration reported.
- Different forms of ketamine were reported to previous years, making comparison of quantities used difficult.
- Most KE reported that ketamine use was very rarely encountered in their fields and that they did not believe it was currently widespread amongst Perth psychostimulant users.
- Findings related to ketamine should be interpreted with caution due to the small number of participants able to comment.

Market Characteristics

- *Price*: No data available.
- *Purity*: No data available.
- *Availability*: No data available.

GHB

Consumption Patterns

- Reported GHB use has been consistently low across years.
- Lifetime use of GHB was reported by 9% of the sample, compared to 4% in 2012.

- Recent use of GHB was reported by 3% of the sample, compared to 1% in 2012.
- GHB was used on a median of 2 days (i.e. less than monthly) over the preceding six months.
- Swallowing was the only route of administration reported.
- No data were available from 2012 to make any comparisons.
- Several KE indicated that there may have been an increase in GHB use in Perth.

Market Characteristics

- *Price*: No data available.
- *Purity*: No data available.
- *Availability*: No data available.

LSD

Consumption Patterns

- Approximately two-thirds (66%) of the current sample reported LSD use in their lifetime and about two-fifths (41%) reported recent use.
- While there were no significant increases observed for LSD, the rate for recent use represents the highest recorded since WA data collection commenced in 2003.
- LSD was used on a median of 4 days (i.e. less than monthly), over the preceding six months, compared with 2 days in 2012.
- LSD was taken orally by all participants (i.e. sub-lingually).
- The most commonly reported location of last LSD use was at a 'friend's home'.
- KE reported an increase in hospital presentations for psychotic symptoms related to LSD use. KE comments and anecdotal participant reports also indicated concern over 2C-family drugs/N-methoxybenzyl (NBOMe) being sold on the market at LSD.

Market Characteristics

- *Price*: \$25 per tab and stable (\$20 in 2012).
- *Purity*: Currently medium to high and stable (compared with high in 2012).
- *Availability*: Currently easy to obtain and stable (consistent with 2012).
- A KE reported an increase in seizures of LSD samples, possibly reflective of an increase in availability.

Cannabis

Consumption Patterns

- Almost the entire sample (98%) reported lifetime use of cannabis; and a similar proportion (92%) reported recent use.
- The proportion reporting recent use (92%) not only marked a significant increase from 77% in 2012, it marked the highest rate recorded since WA data collection commenced in 2003.
- Cannabis was used on a median of 27 days (i.e. approximately once per week) over the preceding six months.
- The use of cannabis has remained relatively stable across survey years.
- KE reported that cannabis use continued to be one of the most problematic drug issues in their field, particularly in relation to mental health.

Market Characteristics

Hydro

- *Price*: \$25 per gram, \$350 per ounce and stable.
- *Potency*: Currently high and stable.
- *Availability*: Currently very easy to obtain and stable.
- Market characteristics for hydro appear to be stable from 2012 to 2013.

Bush

- *Price*: \$25 per gram, \$300 per ounce and stable.
- *Potency*: Currently medium and stable.
- *Availability*: Reports are variable.
- Market characteristics for bush appear to be stable from 2012 to 2013.

New psychoactive substances (NPS)

From 2010 onward, the EDRS has attempted to systematically investigate a group of drugs commonly referred to as 'research chemicals', 'analogues', 'legal highs', 'herbal highs', 'party pills' and 'emerging psychoactive substances'. For the purpose of this report, these drugs are referred to as 'new psychoactive substances' (NPS).

- The most common NPS ever used were synthetic cannabis (45%), DMT (33%), 2C-I (20%) and 2C-B (15%).
- The most commonly reported NPS recently used were DMT (22%), synthetic cannabis (20%), 2C-I (17%) and 2C-B (8%).
- The most notable findings related to NPS in 2013 were increases in the reported use of 2C-series drugs. Notably lifetime use of 2C-I significantly increased from 3% in 2012 to 20% in 2013 and recent use from 1% to 17%. Controlling for age suggested that this increase was not due to the younger age of the 2013 sample.
- The most concerning NPS reported by KE was synthetic cannabis, followed by 2C-series drugs.
- KE expressed concern over uncertainties/unpredictability in short and long term effects of NPS, as well as uncertainties in legality.
- Both KE and participant comments indicate that 2C-series drugs may be getting sold on the Perth market as LSD, given that they both come in tab form and have hallucinogenic properties.

Consumption patterns of other drug use

- Consistent with 2012, the entire sample (100%) reported lifetime use of alcohol and the majority also reported recent use (96%).
- KE reported that alcohol continued to be one of the most problematic drugs among REU/RPU.
- The majority of the sample (88%) reported lifetime tobacco use, comparable to 96% in 2012. Three-quarters (75%) reported recent use, also comparable to 67% in 2012.
- Consistent with low rates in previous years, lifetime use of MDA was reported by 18% and recent use was reported by 12%.
- Approximately three-quarters of the sample (77%) reported the use of pharmaceutical stimulants in their lifetime, significantly declining from 93% in 2012. Controlling for age suggested that this difference was not due to the younger age of the 2013 sample. Roughly two-thirds (64%) reported recent use of pharmaceutical stimulants, which was unchanged from 2012. The vast majority of this use was illicit.

- More than half the sample (55%) reported lifetime use of a benzodiazepine, comparable to 56% in 2012. Approximately one-third (33%) reported recent use, also comparable to 2012 (25%).
- Lifetime use of any anti-depressant was reported by approximately one-third (31%) of the sample, comparable to approximately one-third (29%) in 2012 as well. Recent use was reported by 18%, which did not significantly change from 25% in 2012. The majority of this use was licit.
- Lifetime use of amyl nitrate was reported by 14% of the sample, which did not significantly change from 24% in 2012. Recent use was reported by 10%, which again did not significantly change from 7% in 2012.
- Nitrous oxide appeared to be the more popular inhalant with almost half (46%) reporting lifetime use, comparable to approximately half (53%) in 2012 as well. Approximately one-third (32%) reported recent use, again comparable to 26% in 2012.
- Consistent with previous years, the use of heroin was uncommon with 6% reporting lifetime use, which was unchanged from 2012. Recent use was reported by 2%, comparable to 1% in 2012.
- Lifetime use of 'other opiates' was reported by almost one-third (29%) of the sample, which significantly declined from about half of the sample (46%) in 2012; however, further analyses controlling for age suggested that this difference was due to the younger age of the 2013 sample. Recent use was reported by 15%, which did not significantly change from 20% in 2012. The majority of this use was illicit.
- Lifetime use of psilocybin/hallucinogenic mushrooms or 'magic mushrooms' was reported by almost half the sample (44%), significantly declining from 70% in 2012; however, further analyses controlling for age suggested that this difference was due to the younger age of the 2013 sample. Recent use was reported by 17%, which did not significantly change from 26% in 2012.
- Consistent with 2012, the use of over-the-counter stimulant products remained low with 7% reporting lifetime use, compared to 8% in 2012. Recent use was reported by 5%, again comparable to 2% in 2012.
- Steroid use also remained low with only one participant reporting lifetime and recent use.

Health-related issues

Overdose, deaths and hospital admissions

- Since 2007, EDRS participants were asked about overdose on a stimulant drug and on a depressant drug.
- More than one-third of participants (39%) reported having overdosed on a stimulant drug at some point in their lifetime, which did not significantly change from 2012 (51%).
- Recent stimulant overdose (in the past 12-months) was reported by 29% of the sample, comparable to 30% in 2012.
- Almost one-third of participants (30%) reported having overdosed on a depressant drug at some point in their lifetime, which did not significantly change from 2012 (38%).
- Recent depressant overdose (in the past 12-months) was reported by 19% of the sample, comparable to 21% in 2012.
- Ecstasy was the most commonly implicated drug attributed to stimulant overdoses (61%), while alcohol was the most commonly implicated drug in depressant overdoses (79%).

- Hospital admissions in which amphetamine was the principal diagnosis appear to have increased on both state and national levels; rates for cocaine appear to be relatively stable, and rates for cannabis appear to have slightly decreased on a state level, but increased on a national level.

Service usage

- Access to medical or health services in relation to their drug use in the past six months was reported by only 8%.
- The number of calls to the Alcohol and Drug Information Service (ADIS) concerning ecstasy remained low, with a small spike in the first quarter of 2012 (23 calls). Calls to ADIS concerning ecstasy appear to have declined from early 2007 onward.
- Calls to ADIS concerning methamphetamine have been increasing since late 2009, but appear to have declined in the current 2012/2103 period.

Mental health

- The most commonly reported problem related to participant drug use was in the area of risk of injury (50%), followed by responsibly interferences (39%) and then social problems (26%). Recurrent drug-related legal problems were uncommon (6%).
- Alcohol and ecstasy were the most commonly implicated substances for all drug problems (social, legal, risk and responsibility).
- Approximately one-third (36%) of the current sample reported experiencing a mental health problem in the preceding six-months, compared to 28% in 2012. Consistent with previous years, depression (78%) and anxiety (61%) were those most commonly reported issues.
- Participants completed the Kessler Psychological Distress Scale (K10). The most common category participants fell in was 'moderate distress' (37%), followed by 'low distress' (31%), 'high distress' (24%) and then 'very high distress' (8%). Overall, in 2013 there were 32% falling into the 'high distress' or 'very high distress' categories, compared to 19% in 2012.

Risk behaviours

- One-tenth (10%) of the sample had injected a drug at some point in their lifetime, which was the same as found in 2012. Recent use was reported by 5%, comparable to 7% in 2012.
- Speed was reported as the last drug injected in 100% of cases.
- Among the five recent injectors, there was only one report of using a needle or syringe after someone else.
- Penetrative sex with a casual partner in the six months preceding the interview was reported by more than half the sample (59%), comparable to 67% in 2012. Causal sex occurred most commonly 3-5 times during the six-month period.
- Of those who had engaged in casual sex, most (88%) had done so while under the influence of alcohol and/or other drugs. This equates to 51% of the overall sample, compared to 66% in 2012. The most commonly implicated drugs used were alcohol (63%), ecstasy (60%) and cannabis (33%). Of these participants, more than half (56%) reported that they did not use a protective barrier with their last casual partner. The main reason was 'using contraceptive pill' (25%).
- Of those participants who had driven a car in the last six months (82%), more than one-third (37%) had done so while over the legal alcohol limit and two-

thirds (66%) had done so after taking an illicit drug. This was not significantly different to 2012 findings. The most commonly reported illicit drugs taken prior to driving were cannabis (67%) and ecstasy (59%).

- Bingeing on ERD was reported by more than one-third of the sample (38%), comparable to 37% in 2012. The most commonly reported drugs implicated in bingeing were ecstasy (87%), alcohol (>5 standard drinks) (66%) and cannabis (66%).
- Participants completed the Alcohol Use Disorders Identification Test (AUDIT). The majority of the group (85%) fell in the 'hazardous or harmful drinking' range, comparable to 79% in 2012. An independent-samples *t*-test found that male drinking scores tended to indicate higher risk drinking than females in the sample.
- In 2013, 13% of the sample scored high enough on the Severity of Dependence Scale (SDS) to be considered dependent on ecstasy, which did not significantly change from 4% in 2012.

Criminal and police activity

- Involvement in any criminal activity was reported by two-fifths of the current sample (42%), which did not significantly change from 29% in 2012.
- The most commonly reported crimes were 'drug dealing' and 'property crime' (each 25%).
- While 'drug dealing' had consistently been the most commonly reported crime, 'property crime' appeared to be seeing a gradual increase across survey years.
- Of the current sample, 13% had been arrested in the preceding 12 months, compared to 11% in 2012. 'Alcohol and driving' was the most commonly reported cause of arrest.
- Both provider and consumer arrests increased in this reporting period, with a total of 8,666 in 2010/11 and 10,250 in 2011/12. With the exception of cocaine, all drug classes also increased. The most notable increase for drug classes was amphetamine-type stimulants (ATS), but the most commonly implicated drug for both arrest types was cannabis.
- There were 160 clandestine laboratories detected during 2011/12, compared with 171 the previous year. The majority were producing ATS.
- KE from law enforcement continued to express concerns over the risks of dismantling clandestine methamphetamine laboratories and the associated drain on police resources as lab detections continued to remain high.

Special topics of interest

- More than half of the sample (55%) reported that a friend/acquaintance had injected a drug illicitly; one-quarter (25%) reported that a friend/acquaintance had injected a drug in their presence, and 18% reported having been offered a drug to inject in last 12-months.
- The majority (87%) reported that they had not ever seriously considered injecting a drug illicitly, 10% had already injected and only 3% reported seriously considering it.
- There were only very small numbers reporting recent use of mephedrone, 2C-B, methylone and 3,4-methylenedioxypyrovalerone (MDPV). Given the extremely small sample sizes for mephedrone, methylone and MDPV (< n=5), only 2C-B was included for analysis.

- The main factors that appeared to influence the use of 2C-B included that it was 'good value for money', 'no other drug was available at the time' and it was a 'better high compared to traditional illegal stimulants'.
- The effects most commonly reported to have been experienced 'most of the time' included 'increased energy', 'urge to talk', 'urge to move' and 'no appetite for food'.

Implications

The WA arm of the EDRS aims ultimately to monitor trends in the Perth ecstasy and related drug (ERD) markets and investigate harms associated with ERD use. The 2013 WA EDRS revealed ongoing fluctuations in drug markets and signs of drug related harms which are discussed below.

Drug use trends

Over the past two EDRS data collection periods, there has been growing evidence that suspected declines experienced in the WA ecstasy market in the 2010/11 period were coming to an end. EDRS data examined across years suggest that the WA ecstasy market may have seen somewhat of a resurgence. Interestingly, as in other capital cities in Australia, an emerging trend that's been observed in the WA data, is that there appears to be increasing reports of other non-pill forms of ecstasy use (powder, capsules and crystals). It will be interesting to see if this resurgence continues into future data collection periods. It will also be interesting to see whether these other non-pill forms of ecstasy continue to increase in the market.

There are a number of drug trends findings in this year's EDRS which will be looked at with interest in 2014 to see whether they continue. These include: (1) indications of a resurgence in the WA ecstasy market; (2) increasing reports of other non-pill forms of ecstasy use (i.e. powder, capsules and crystals); (3) increasing reports of recent cannabis use; (4) decreasing reports of lifetime methamphetamine use; (5) increasing reports of drugs sold as LSD; and (6) increasing reports of 2C-series drug use, and anecdotal reports that 2C-series drugs are being sold on the market as LSD.

Harms

The high level of alcohol use among the sample continues to be of concern. The majority of the sample (85%) obtained AUDIT scores that indicated hazardous and harmful use of alcohol. Additionally, more than half of the sample (62%) consumed alcohol on a 'more than weekly' basis. Alcohol was also the main drug implicated in depressant overdoses. These findings are consistent with previous years and have implications for continued harm reduction efforts targeting risky alcohol use among REU/RPU.

Alcohol use in combination with other drug use also continues to present concern. Among the current sample, the use of stimulant drugs concurrently with alcohol was common. The majority of the sample (80%) reported using alcohol with ecstasy last time they used it, and among these participants, the majority (88%) also reported consuming more than five standard drinks. A further indication of concurrent alcohol and stimulant drug use is that stimulant drugs were implicated in depressant overdoses, and depressant drugs were implicated in stimulant overdoses. These findings are consistent with previous years, and indicate that, despite negative symptoms associated with consuming alcohol in combination with stimulants; this behaviour continues to be common. This finding has implications for harm reduction efforts targeting the concurrent use of alcohol and stimulants like ecstasy, pharmaceutical stimulants and energy drinks.

Increasing reports of 2C-series drug use (e.g. 25I-NBOMe) in the current sample is a new issue of concern. Recently, 2C-series drugs have sparked widespread concern in Australia and internationally due to their link to a number of deaths. Some reasons why this class of NPS presents concern include (1) there is a lack of scientific literature examining the short and long term effects of these drugs (2) there are many psychedelic drugs within the series that have varying potency, which might be unclear to consumers and can potentially lead to harm from misuse. Further, in the current sample, there were anecdotal reports by both participants and KE that 2C-series drugs might be getting sold as LSD in the Perth market. There are various reasons why this may occur including (1) 2C drugs are easy to obtain online (2) 2C drugs can be purchased cheaply online (as little as \$1.50 per tab) (3) 2C drugs are available in tab/blotter form (i.e. may appear to look like LSD) and (4) both LSD and 2C drugs have psychedelic effects. If this behaviour is occurring, it presents significant concern as it is believed that 2C-series drugs present greater risk of acute harm than LSD due to high potency at low doses, as well as sympathomimetic (i.e. stimulant type) effects which can cause cardiovascular complications (Caldicott, Bright & Barratt, 2013). Adding to this, there were also anecdotal reports that some 2C-series drugs come in pill form, indicating the potential for them to be marketed and sold as ecstasy as well. While it is not possible to determine whether these are behaviours that are actually occurring in Perth, it is an issue that has important implications for harm reduction. It is important that REU/RPU are aware that these drugs exist in the Perth market and that they may be marketed and sold as something else. It is also important that service providers, particularly emergency services, that are managing drug use presentations involving LSD and ecstasy, also consider the diagnosis of an inadvertent 2C-type drug overdose, which mandates a higher level of care than what might be otherwise assumed is needed (Caldicott, Bright and Barratt, 2013). Overall, ongoing and careful monitoring of the use and sale of these drugs is needed, as well as further investigation of online purchasing patterns as drug markets continue to expand. Increasing awareness among REU/RPU of the presence of these drugs in the Perth market, and encouragement of more careful harm reduction measures, is also imperative.

Implications related to changes in methodology

During the 2011 WA EDRS recruitment process, considerable difficulties were experienced, which were believed to be a result of declines in the perceived potency and availability of ecstasy. These recruitment difficulties suggested that a trend away from ecstasy could have been occurring, and it was, therefore, proposed that changes to the WA EDRS methodology be considered in future years to account for this trend. As a result, in 2012 the EDRS selection criteria were expanded in WA to include both regular ecstasy users (REU) and regular psychostimulant users (RPU). These methodological changes were subject to change according to annual review of the Perth ecstasy market. Ecstasy data and user perceptions from both the 2012 and 2013 WA EDRS show preliminary indications that both potency and availability may have seen somewhat of a resurgence in WA. Consequently, there will be ongoing consideration of whether the 2012 selection criteria changes are continued into future data collection periods.

1. INTRODUCTION

The Ecstasy and Related Drugs Reporting System (EDRS) is an ongoing project funded by the Australian Government Department of Health (AGDH) 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. In 2013, the EDRS Project is supported by funding from the Australian Government under the Substance Misuse Prevention and Service Improvement Grants Fund.

The EDRS terms of reference are the drugs that are routinely associated in the context of entertainment venues such as nightclubs, festivals or dance parties. This includes drugs such as 3,4-methylenedioxymethamphetamine – MDMA (ecstasy), amphetamines, cocaine, lysergic acid diethylamide (LSD), ketamine, 3,4-methylenedioxyamphetamine (MDA) and gamma-hydroxybutyrate (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 (EDRS) in 2006.

The current report presents the findings of the eleventh 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/REU or regular psychostimulant users/RPU); key expert (KE) interviews with people who have regular 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 2013 were to:

1. Describe the characteristics of a sample of current REU/RPU 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, potency 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 (2003-2013); 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/RPU 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/RPU

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 two decades. 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%) (Australian Institute of Health and Welfare, 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 (Australian Institute of Health and Welfare, 2011a). The entrenchment of ecstasy in Australia's illicit drug markets, relative to other related drugs, underpinned the decision that regular use of ecstasy could be considered the defining characteristic of the target population of the EDRS. Therefore, from 2003 to 2011, the sentinel population for the EDRS consisted of regular users of pills, powder or capsules sold as 'ecstasy'. However, in recent years recruitment based on this criteria alone has proved challenging for some jurisdictions including WA. It was speculated that this could be a result of declines in the potency and availability of ecstasy in WA and across Australia.

As in other parts of the world, in Australia, over recent years there has been evidence for a decline in 'ecstasy' purity (Australian Crime Commission, 2010). This declining purity has provided potential for an expanding market of new psychoactive substances (NPS), as existing ecstasy users seek alternative substances (Bruno et al., 2012). Essentially, due to a decline in the purity and availability of ecstasy, people may be seeking out and using alternative psychoactive substances. In order to capture these users, in 2012 the decision was made by the EDRS chief investigators to broaden the selection criteria for the study in those jurisdictions where the decline in ecstasy availability had made the samples too small to undertake meaningful analysis. Consequently, in 2012, the WA EDRS selection criteria were expanded to include regular psychostimulant users (RPU), in addition to regular ecstasy users (REU). It was intended that an annual review of this strategy be undertaken in those jurisdictions where these changes were made, in order to decide on the future of these recruitment criteria. The expanded criteria were carried through into the 2013 data collection period. Therefore, for the purpose of the present study, the sentinel population for the 2013 WA EDRS consisted of regular ecstasy users (REU) and/or regular psychostimulant users (RPU).

2.1.1. Recruitment

For the 2013 WA EDRS study, 100 REU/RPU were interviewed, all of whom reported that 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 cafes, music stores, clothing stores and universities, dance scene related websites and online forums, and participant snowballing techniques as described by Barnard (1995). For the past two data collection periods, recruitment methods have expanded to keep in line with advancing technology. Some of the additions included:

1. An EDRS webpage went live on the NDRI website;
2. The study was advertised on the Facebook sites of entertainment street press, as well as in print magazines, and
3. A link was sent out through the Curtin University Health Sciences Faculty Twitter and Facebook accounts, and also advertised on Curtin University homepages.

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 2013, 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 (pills, powder, capsules or crystals) or a psychostimulant drug (e.g. methamphetamine, MDA, cocaine, ketamine, GHB, LSD, mephedrone, or new psychoactive substances (NPS) such as 2C-B, 2C-I) at least monthly or on six separate occasions over the preceding six months;
2. Aged 16 years or older; and
3. Resident in the Perth metropolitan area for a minimum of 12 months prior to the 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 2013, 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 and had a range of interviewer materials contained in a display folder to assist them.

2.1.3. Measures

Participants were administered a structured interview schedule based on a national study of ecstasy users conducted by National Drug and Alcohol Research Centre (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, potency 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 and new drug users.

2.1.4. Data analysis

Quantitative data from the REU/RPU survey were analysed using SPSS Statistics 21 for Windows. For continuous variables, normally distributed variables, *t*-tests were employed. Where continuous variables were skewed, the Mann-Whitely *U*-test, a non-parametric analogue of the *t*-test, was employed. For categorical variables, confidence intervals (CI) were calculated using an Excel spreadsheet available at <http://www.cebm.net/index.aspx?o=1023>. Qualitative data collected from REU/RPU 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/psychostimulant drug users. Regular contact was defined as average weekly contact and/or contact with 10 or more ecstasy/psychostimulant drug users throughout the past six months. Eighteen KE from areas of law enforcement, health, and nightclub entertainment participated in the 2013 WA EDRS.

2.3. Other indicators

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

- The 2010 NDSHS;
- Australian Crime Commission (ACC) – drug potency 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

3.1. Overview of the REU/RPU sample

Interviews were conducted with 93 regular ecstasy users (REU) and 7 regular psychostimulant users (RPU), equating to a total sample of 100 REU/RPU, in the Perth metropolitan area between April and July 2013. Table 1 presents key demographic data for the current and previous samples of REU/RPU recruited in WA.

The mean age of the group was 20 years (median 20, range 16-47) down from 23 in 2012. There were a greater proportion of males (63%) than females (37%). The vast majority (96%) were of English speaking background and born in Australia (79%).

The majority of participants (78%) had completed high school and the median number of years of school education was 12 (range 8-12). Approximately one-third of the sample (32%) had also completed a tertiary qualification post school, with one fifth (20%) completing a university or college degree, and about one tenth (12%) completing a trade or technical qualification. Employment situations were varied with 29% reporting 'part-time/causal work', 22% reporting 'working and studying' and 16% reporting 'full-time work'.

The majority of participants identified as 'heterosexual' (90%) and over half (56%) reported their current relationship status as 'single'.

The greatest proportion of the sample (66%) reported residing in their 'parents'/family home', followed by 'rented premises' (28%). Participants earned a median of \$524/week (range \$40-\$3,077).

Overall, the demographic characteristics of the 2013 sample remained similar to that of 2012. The greatest variability was found in the completion of a tertiary qualification (university/college or trade/technical), significantly decreasing from 67% in 2012 to 32% in 2013 (95%CI 0.20, 0.47); however, controlling for age suggested that this decrease was due to the younger age of the 2013 sample. It is unclear why there has been a decrease in the median age, but this could be reflective of snowballing effects during recruitment. Participant income also significantly decreased by \$110 per week, $U(188) = 3422$, $W = 8078$, 0.047 , which also appeared to be due to age differences between the samples.

Table 1: Demographic characteristics of WA REU/RPU samples, 2003-2013

	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	2012 N=90	2013 N=100
Mean age (years)	21.4	22.0	22.7	24.7	26.4	22.9	23.1	23.4	26.8	23.7	20.8*
Male (%)	53	59	58	60	55	48	65	48	68	60	63
English speaking background (%)	99	97	99	95	95	98	97	99	96	97	96
ATSI (%)	9	1	3	2	1	0	2	4	4	2	2
Heterosexual (%)	83	89	90	86	88	97	84	86	100	96	90
Mean number school years	12.1	11.5	11.5	11.5	11.5	11.8	11.5	11.7	11.4	11.6	11.6
Tertiary qualifications (%)	48	49	57	51	52	59	46	48	36	67	32*
Full-time students (%)	16	21	14	19	3	3	13	8	7	4	5
Employed full-time (%)	33	31	33	52	24	55	22	31	14	28	16
Employed part-time (%)	16	22	35	13	38	12	23	29	21	22	29
Both studying and employed	-	-	-	-	-	24	27	17	18	21	22
Unemployed (%)	22	24	15	14	25	5	15	13	25	21	20
Mean income per week	-	-	-	-	-	-	\$425	\$467	\$471	\$634	\$524*
Current drug treatment (%)	5	6	6	5	8	3	5	3	7	3	3

Source: WA EDRS REU/RPU interviews, 2003-2013*Indicates significant changes from the 2012 results according to 95%CI and $p=0.05$

4. CONSUMPTION PATTERN RESULTS

4.1. Drug use history and current drug use

Participants were asked about lifetime (ever used) and recent use (last 6 months) of a variety of different drugs. Polydrug use has been common among REU/RPU samples since the WA EDRS commenced in 2003. In 2013, the median number of drug types participants had used in their lifetime was 10 (range 3-21) and the median number they had used recently (i.e. in the past six months) was six (range 2-13). Consistent with previous years, the majority of the sample reported recent use of alcohol (96%), cannabis (92%), tobacco (75%) and pharmaceutical stimulants (64%). Also consistent with previous years, approximately one-tenth (10%) reported injecting a drug in their lifetime. A more thorough analysis of each drug class can be found in later sections of this report.

Table 2 presents rates of lifetime and recent use of a variety of drugs across years. The EDRS began to systematically investigate other less commonly used drugs in 2010 (e.g. mephedrone, MDPV, DMT and synthetic cannabis). These drugs are currently referred to as new psychoactive substances (NPS) and are reported separately to the drugs presented in Table 2 (see section 4.10 'New psychoactive substances' for a detailed analysis).

There were a number of significant differences in rates of drug use between the 2012 and 2013 EDRS samples. These included:

- A significant increase in the proportion reporting lifetime use of 2C-I;
- A significant increase in the proportion reporting recent use of 2C-I;
- A significant increase in the proportion reporting recent use of ecstasy capsules;
- A significant increase in the proportion reporting recent use of cannabis;
- A significant decrease in the proportion reporting lifetime use of speed;
- A significant decrease in the proportion reporting lifetime use of crystal methamphetamine;
- A significant decrease in the proportion reporting lifetime use of pharmaceutical stimulants;
- A significant decrease in the proportion reporting lifetime use of magic mushrooms; however, controlling for age suggested that this decrease was due to the younger age of the 2013 sample;
- A significant decrease in the proportion reporting lifetime use of other opiates; however, controlling for age suggested that this decrease was due to the younger age of the 2013 sample; and
- A significant decrease in the proportion reporting lifetime use of herbal highs.

Table 2: Lifetime and recent polydrug use of WA REU/RPU samples, 2003-2013

	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	2012 N=90	2013 N=100
Ever inject any drug (%)	21	22	22	20	27	10	11	10	36	10	10
Ecstasy pills											
ever used (%)	100	100	100	100	100	100	100	100	100	100	100
used last 6 months (%)	100	100	100	100	100	100	100	100	100	100	99
Ecstasy powder											
ever used (%)	-	-	43	29	23	24	19	18	29	42	32
used last 6 months (%)	-	-	27	9	11	9	10	6	7	26	25
Ecstasy capsules											
ever used (%)	-	-	-	-	-	47	42	41	61	58	62
used last 6 months (%)	-	-	-	-	-	28	15	14	11	32	48*
Ecstasy crystals											
ever used (%)	-	-	-	-	-	-	-	-	-	-	46
used last 6 months (%)	-	-	-	-	-	-	-	-	-	-	34
Alcohol											
ever used (%)	99	99	99	100	97	100	100	100	100	100	100
used last 6 months (%)	94	92	98	99	92	98	99	98	93	96	96
Cannabis											
ever used (%)	99	97	99	100	96	100	99	99	100	99	98
used last 6 months (%)	91	85	83	86	80	85	85	81	86	77	92*
Tobacco											
ever used (%)	83	84	86	97	79	90	92	84	89	96	88
used last 6 months (%)	70	73	72	74	52	69	76	67	89	67	75
Methamphetamine powder (speed)											
ever used (%)	93	88	94	87	72	72	63	60	67	62	36*
used last 6 months (%)	83	78	85	65	46	38	37	38	44	27	17
Methamphetamine base (base)											
ever used (%)	54	46	59	56	22	22	13	8	36	8	9
used last 6 months (%)	32	31	38	32	10	5	3	4	11	1	0
Crystal methamphetamine (crystal)											
ever used (%)	91	89	88	89	69	62	41	40	64	58	32*
used last 6 months (%)	77	80	69	77	52	36	20	22	46	33	22

Source: WA EDRS REU/RPU interviews, 2003-2013

*Indicates significant changes from the 2012 results according to 95%CI and p=0.05

Table 2: Lifetime and recent polydrug use of WA REU/RPU samples, 2003-2013 (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	2012 N=90	2013 N=100
Pharmaceutical stimulants											
ever used (%)	-	-	89	92	71 [#]	85 [#]	82 [#]	83 [#]	89 [#]	93 [#]	77 ^{#*}
used last 6 months (%)	-	-	74	60	53 [#]	53 [#]	60 [#]	58 [#]	68 [#]	64 [#]	64 [#]
Cocaine											
ever used (%)	44	36	57	55	56	66	52	51	82	71*	54
used last 6 months (%)	17	16	35	29	27	40	24	26	32	31	34
LSD											
ever used (%)	62	50	71	67	49	47	55	48	71	57	66
used last 6 months (%)	22	11	35	25	23	21	31	35	36	33	41
MDA											
ever used (%)	12	19	19	6	22	16	9	11	25	17	18
used last 6 months (%)	1	6	11	0	3	5	2	5	14	4	12
Ketamine											
ever used (%)	25	21	25	14	22	21	18	14	18	18	20
used last 6 months (%)	12	10	11	4	2	3	6	4	0	3	7
GHB											
ever used (%)	20	11	10	5	8	7	7	3	14	4	9
used last 6 months (%)	8	5	3	2	0	2	2	0	0	1	3
Amyl nitrate											
ever used (%)	43	36	46	34	27	21	20	20	29	24	14
used last 6 months (%)	16	15	17	8	7	3	6	5	7	10	7
Nitrous oxide											
ever used (%)	65	62	63	57	46	48	39	39	50	53	46
used last 6 months (%)	43	43	34	23	20	21	13	16	18	26	32
Mushrooms											
ever used (%)	-	-	53	53	46	45	50	43	79	70	44*
used last 6 months (%)	-	-	14	13	14	10	15	12	11	26	17
Benzodiazepines											
ever used (%)	48	35	49	57	48 [#]	36 [#]	41 [#]	44 [#]	61 [#]	56 [#]	55 [#]
used last 6 months (%)	32	29	39	32	37 [#]	24 [#]	22 [#]	28 [#]	39 [#]	25 [#]	33 [#]
Anti-depressants											
ever used (%)	30	25	32	29	26 [#]	17 [#]	21 [#]	24 [#]	29 [#]	29 [#]	31 [#]
used last 6 months (%)	17	13	13	14	13 [#]	9 [#]	6 [#]	10 [#]	4 [#]	8 [#]	18 [#]

Source: WA EDRS REU/RPU interviews, 2003-2013

[#] includes licit and/or illicit use

*Indicates significant changes from the 2012 results according to 95%CI and p=0.05

Table 2: Lifetime and recent polydrug use of WA REU/RPU samples, 2003-2013 (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	2012 N=90	2013 N=100
Heroin											
ever used (%)	10	13	15	10	16	3	6	4	25	6	6
used last 6 months (%)	1	8	6	1	10	2	2	3	11	1	2
Methadone											
ever used (%)	1	4	8	4	12	5	4 [#]	3 [#]	7 [#]	2 [#]	1
used last 6 months (%)	1	1	3	2	6	0	1 [#]	2 [#]	0 [#]	0 [#]	0
Buprenorphine											
ever used (%)	6	4	5	3	10	3	2 [#]	2 [#]	11 [#]	3 [#]	3
used last 6 months (%)	4	1	2	1	4	2	- [#]	1 [#]	11 [#]	0 [#]	0
Other opiates											
ever used (%)	31	18	41	24	35	24	20	27	43 [#]	46 [#]	29^{##}
used last 6 months (%)	17	10	27	13	21	12	10	10	14 [#]	20 [#]	15[#]
OTC codeine											
Ever used (%)	-	-	-	-	-	-	20	29	57	20	23
Used last 6 months (%)	-	-	-	-	-	-	15	22	43	14	15
Over-the-counter stimulants											
ever used (%)	-	-	-	-	-	-	19	36	43	8	7
used last 6 months (%)	-	-	-	-	-	-	8	26	11	2	5
Steroids											
ever used (%)	-	-	-	-	-	-	-	1	0	2	1
used last 6 months (%)	-	-	-	-	-	-	-	0	0	1	1

Source: WA EDRS REU/RPU interviews, 2003-2013

[#] includes licit and/or illicit use

*Indicates significant changes from the 2012 results according to 95%CI and p=0.05

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 an hallucinogenic amphetamine and commonly associated with what was previously termed the 'party drug' scene. Tablets sold as ecstasy may include a range of substances, perhaps in combination with a hallucinogenic such as ketamine. They may also contain illicit chemicals like 3,4-methylenedioxyamphetamine (MDA), para-methoxyamphetamine (PMA) or 3,4-methylenedioxyethylamphetamine (MDEA) or licit substances such as caffeine or paracetamol. The results presented in this section relate to the participants' use and knowledge of tablets sold as 'ecstasy'.

4.2.1. Ecstasy use among REU/RPU

Presented in Table 3 are key findings regarding ecstasy use collected from samples recruited over the last eleven years in WA. While some findings related to ecstasy use remained very similar between the 2013 and 2012 samples, there were also some significant differences.

In 2013, the average age at which ecstasy was first used remained at 18 years and 38% nominated ecstasy as their 'drug of choice'.

A quarter of the sample (25%) reported 'weekly or more' ecstasy use, which significantly increased from 12% in 2012 (95%CI -0.23, -0.02). While the average number of days ecstasy was used in the six month period also increased from 11 days (median=8) to 20 days (median=14), this increase was not significant. The average amount of ecstasy used on a 'typical occasion' also remained comparable at 2.2 tablets.

Consistent with 2012, reported use of other non-pill forms of ecstasy continue to be on an overall upward trend. Of the non-pill forms of ecstasy, in 2013 the most commonly reported form used was ecstasy capsules, followed by ecstasy crystals and then ecstasy powder. In 2013, approximately one-third (32%) of the sample reported lifetime use of ecstasy powder and one-quarter (25%) reported recent use, which did not significantly change from 2012 findings. As this is the first year the EDRS has asked about ecstasy crystals, no data exists to make any comparisons, hence we cannot determine whether there has been a significant increase in use, but almost half the sample reported lifetime use (46%) and more than a third reported recent use (34%) in 2013. Lifetime use of ecstasy capsule use was reported by approximately two-thirds (62%), which also did not significantly change from 2012 (58%); however, the proportion reporting recent use significantly increased from one-third (32%) in 2012 to almost half (48%) in 2013 (95%CI -0.02, -0.29). Overall, there appears to be an increasing trend in the reported use of other non-pill forms of ecstasy.

Consistent with previous years, 'swallowing' was reported as the main route of administration and was reported by 90% of the sample; followed by snorting (9%) and then injecting (1%). Similar to 2012, only a very small proportion (3%) reported 'injecting' ecstasy in their lifetime.

Table 3: Patterns of ecstasy use, 2003-2013

	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	2012 REU n=65	2012 REU/RPU N=90	2013 N=100
Ecstasy pills												
ever used (%)	100	100	100	100	100	100	100	100	100	100	100	100
used last 6 months (%)	100	100	100	100	100	100	100	100	100	100	100	99
Ecstasy powder												
ever used (%)	-	-	43	29	23	24	19	18	29	54	42	32
used last 6 months (%)	-	-	27	9	11	9	10	6	7	34	26	25
Ecstasy capsules												
ever used (%)	-	-	-	-	-	47	42	41	61	63	58	62
used last 6 months (%)	-	-	-	-	-	28	15	14	11	42	32	48*
Ecstasy crystals												
ever used (%)	-	-	-	-	-	-	-	-	-	-	-	46
used last 6 months (%)	-	-	-	-	-	-	-	-	-	-	-	34
Mean age first used ecstasy (years)	18	18	18	19	20	18	18	18	18	18	18	18

Source: WA EDRS REU/RPU interviews, 2003-2013

*Indicates significant changes from the 2012 results according to 95%CI and p=0.05

Table 3: Patterns of ecstasy use, 2003-2013 (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	2012 REU n=65	2012 REU/RPU N=90	2013 N=100
Mean days used ecstasy last 6 months [#]	16	16	20	21	16	13	12	14	17	13	11	20
Ecstasy 'favourite' drug (%)	52	44	51	41	46	38	42	45	26	39	36	38
Use ecstasy weekly or more (%)	25	21	30	35	27	10	29	14	29	14	12	25*
Mean ecstasy tablets in 'typical' session	1.7	2.2	1.7	2.0	1.8	2.1	2.5	2.1	2.3	2	1.8	2.2
Typically use >1 tablet (%)	57	61	68	70	54	74	86	81	75	77	66*	72
Recently binged on ecstasy or related drugs (%) ~	38	38	40	45	29	22	40	27	54	29	26	38

Source: WA EDRS REU/RPU interviews, 2003-2013

*Indicates significant changes from the 2012 results according to 95%CI and p=0.05

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

[#] inclusive of ecstasy pills, powder, capsules or crystals

Table 3: Patterns of ecstasy use, 2003-2013 (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	2012 REU n=65	2012 REU/RPU N=90	2013 N=100
Ever injected ecstasy [#] (%)	10	14	10	12	14	7	4	6	21	3	4	3
Main ROA of ecstasy in the last 6 months (%)												
Swallow	90	93	95	98	95	91	99	94	93	94	93	90
Snort	-	-	3	1	5	9	1	5	7	6	7	9
Inject	-	-	2	-	-	-	-	1	-	-	-	1
Shelve/shaft [^]	-	-	-	1	-	-	-	-	-	-	-	-
Typically use other drugs in conjunction with ecstasy [#] (%)	85	86	90	94	93	97	73	84	68	89	92	93
Typically use other drugs to 'come down' from ecstasy [#] (%)	76	80	86	86	86	90	54	39	54	42	39	49

Source: WA EDRS REU/RPU interviews, 2003-2013

~ '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)

[#] inclusive of ecstasy pills, powder, capsules or crystals

4.2.2. Use of other drugs with ecstasy and during comedown

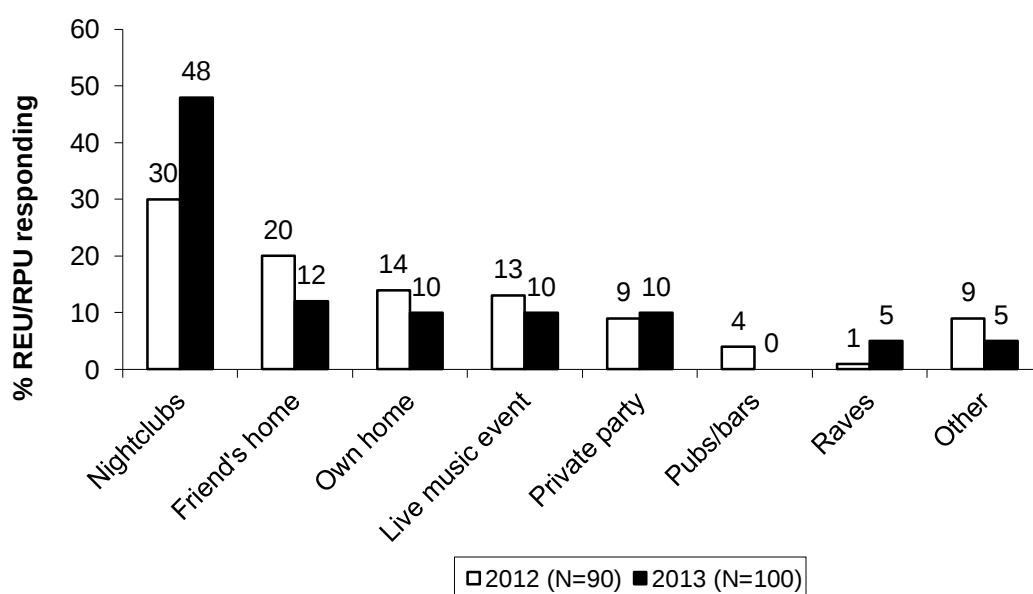
As in previous years, in 2013 the majority of participants (93%) reported using other drugs in combination with ecstasy last time they used it. The most commonly reported drugs used with ecstasy were alcohol (80% overall; 10% less than 5 standard drinks and 70% more than five standard drinks), tobacco (53%), cannabis (38%), pharmaceutical stimulants (19%), LSD and cocaine (each 7.5%) and crystal methamphetamine (6.5%).

Approximately half (49%) of the sample reported the use of other drugs to help them 'come down' from ecstasy the last time they used it. The four most commonly reported drugs used to come down from ecstasy were cannabis (34%), benzodiazepines (11%), alcohol (7% overall; 2% less than five standard drinks and 5% more than five standard drinks) and tobacco (6%).

4.2.3. Locations of ecstasy use

Participants were asked where they spent the most time intoxicated last time they used ecstasy. As presented in Figure 1, ecstasy was used in both public (68%) and private settings (32%). The most popular public settings reported were 'nightclubs' (48%), 'live music events' (10%), and 'raves' (5%). The most popular private settings reported were at a 'friend's home' (12%), 'own home' or a 'private party' (each 10%).

Figure 1: Location of most recent ecstasy use, 2013

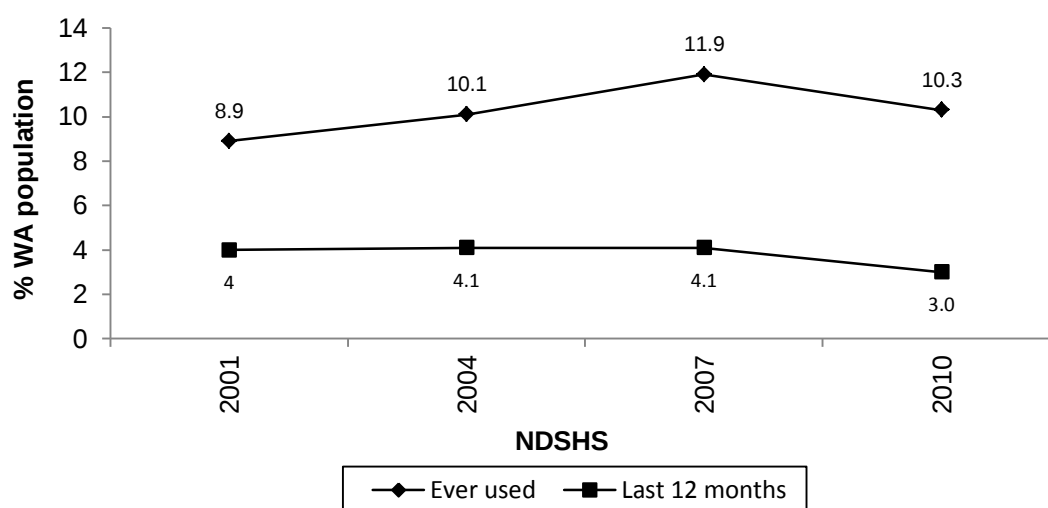


Source: EDRS REU/RPU interviews, 2010-2013

4.2.4. Use of ecstasy in the general population

The NDSHS has been conducted at various intervals in Australia since 1988. As shown in Figure 2, 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 (AUSTRALIAN INSTITUTE OF HEALTH AND WELFARE, 2011a).

Figure 2: 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

Key expert comments

- All KE agreed that ecstasy continued to be commonly used recreationally among young people in Perth.
- Most KE reported that ecstasy was mainly swallowed and sometimes snorted. One KE, who worked in nightclub security, reported that MDMA crystals are sometimes put in water and drank instead.
- Most KE agreed that ecstasy was used by both genders and was most common in the 18-25 year old age group.
- A KE, who worked in nightclub security, reported that in the preceding six months they have had to forcibly remove patrons who were observably too intoxicated. The KE reported that young people are consuming “bad pills” that seemed “smacky” and people were experiencing adverse effects.
- Similarly, another KE who also works in a nightclub setting, reported that he’d noticed patrons that are observably “of their head on ecstasy” and engaging in “bizarre behaviour”. The KE added that patrons on ecstasy only seemed to be a danger to themselves. He reported that they generally mixed large amounts of alcohol with ecstasy, often drinking first and then taking anything they can get their hands on, which could often involve low quality pills. He also reported that many young people could no longer afford to drink in nightclubs due to rising drink prices, and, therefore, opted to use illicit drugs instead. He noted that the next morning cleaners always observed the floor scattered with small “pill bags”.
- A KE, who worked in mental health, expressed concern that young people had reported taking 5 to 6 tablets in one night and mixed this with a variety of other drugs, particularly alcohol. The KE added that this type of behaviour could be risky, as one drug might mask the effects of another.

4.2.5. Summary of ecstasy consumption

- The proportion reporting ecstasy as their 'drug of choice' was 38%, comparable to 36% in 2012.
- The mean age of first ecstasy use was approximately 18 years, which has been consistent across survey years.
- The proportion reporting recent use significantly increased from one-third (32%) in 2012 to almost half (48%)
- The median number of days ecstasy was used in the preceding six-month period was 14 days, comparable to 10 days for the 2012 REU sample.
- The proportion reporting use of more than one ecstasy tablet per session was 72%, comparable to 77% in 2012.
- On a 'typical occasion', the average number of pills used was 2.2, comparable to 2 pills in 2012.
- A quarter of the sample (25%) reported 'weekly or more' ecstasy use, which significantly increased from 12% in 2012
- Consistent with previous years, 'swallowing' was the main route of administration (90%).
- The use of other non-pill forms of ecstasy continued to be on an upward trend, with a significant increase observed in recent use of ecstasy capsules.
- In 2013, for the first time, the EDRS asked about ecstasy crystal use. Almost half the sample reported lifetime use of crystals (46%) and more than a third reported recent use (34%).
- The vast majority of participants (93%) reported using other drugs in combination with ecstasy the last time they used it, most commonly alcohol, tobacco, cannabis and pharmaceutical stimulants.
- Approximately half (49%) reported using other drugs to help them come down from ecstasy the last time they used it, most commonly cannabis, benzodiazepines and alcohol.
- Ecstasy was used in both public (68%) and private settings (32%), most commonly at 'nightclubs' (48%).
- Key experts commented that recreational ecstasy use was common among young people, as were associated adverse effects.

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 (Australian Bureau of Criminal Intelligence, 1999, 2000, 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 potency in Australia, 97.9% (by number) were methamphetamine rather than amphetamine (Australian Crime Commission, 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 sluggish, 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. Approximately one-third of the sample (36%) reported lifetime use of speed, representing a significant decrease from 62% in 2012 (95%CI 0.12, 0.39). Controlling for age suggested that this finding was not due to the younger age of the 2013 sample. When comparing to the 2012 REU sample alone (i.e. not the combined REU/RPU sample), a significant decline was still observed. Recent use was reported by 17%, which did not significantly change from 2012.

Among those who reported recent use of speed (n=17), it was used on an average of 11 days (median 5, range 1-72) over the preceding six month period, which did not significantly change from 4 days (median 2) in 2012. The median amount of speed used on a 'typical occasion' was 1 gram and the median amount used on the 'heaviest occasion' was also 1 gram. 'Swallowing' was the most commonly reported route of administration (41%), followed by 'snorting' (35%), 'injecting' (29%), and then 'smoking' (24%).

Table 4: Patterns of methamphetamine powder (speed) use, 2003-2013

Speed	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	2012 N=90	2013 N=100
Ever used (%)	93	88	94	87	72	72	63	60	67	62	36*
Used preceding six months (%)	83	78	85	65	46	38	37	38	44	27	17
Of those who had used											
Mean days used last 6 months	16	18	15	13	19	15	7	6	44	4	11*
Median amount used (grams)											
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)	0.5 (0.1-1)	0.25 (0.2-2)	1 (1-1)
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)	1 (0.2-2)	0.5 (0.2-4)	1 (1-1)

Source: WA EDRS REU/RPU interviews, 2003-2013*Indicates significant changes from the 2012 results according to 95%CI and $p=0.05$

4.3.2. Methamphetamine base

In 2013, 9% of the sample reported lifetime use of methamphetamine base. There were no participants that reported recent use, therefore no further analyses were performed for base.

4.3.3. Crystal methamphetamine

As shown in Table 5, lifetime use of crystal methamphetamine significantly declined from 58% in 2012 to 32% in 2013 (95%CI 0.11, 0.39), and, again, controlling for age suggested that this was not due to the younger age of the 2013 sample. When comparing to the 2012 REU sample alone (i.e. not the combined REU/RPU sample), a significant decline was still observed. This represents the lowest rate of lifetime use since the WA EDRS commenced in 2003. Recent use of crystal was reported by 22% of the sample in 2013, which did not significantly change from 33% in 2012.

Of those who reported recent use of crystal (n=22), it was used on an average of 20 days in the preceding six months (median 6, range 1-180), which did not significantly change from 10 days (median 4) in 2012. The median amount of crystal used on a 'typical occasion' was two points, and the median amount used on the 'heaviest occasion' was three points. The most commonly reported route of administration remained as 'smoking' (82%, n=18), followed by 'snorting' (46%, n=10), 'swallowing' (23%, n=5) and then 'injecting' (14%, n=3).

Table 5: Patterns of crystal methamphetamine use, 2003-2013

Crystal	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	2012 REU n=65	2012 REU/RPU N=90	2013 N=100
Ever used (%)	91	89	88	89	69	62	41	40	64	52	58	32*
Used last six months (%)	77	80	69	77	52	36	20	22	46	29	33	22
Of those who had used												
Mean days used last 6 months	17.4	22.2	14.1	13.6	27.7	11.9	9.2	7.9	19.0	11.8	10.4	20
Median quantities used (points)												
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)	1 (0.5-2.5)	1 (0.2-7)	1 (0.2-7)	2 (0.5-6)
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)	1 (0.5-2.5)	2 (0.2-14)	2 (0.2-14)	3 (0.5-10)

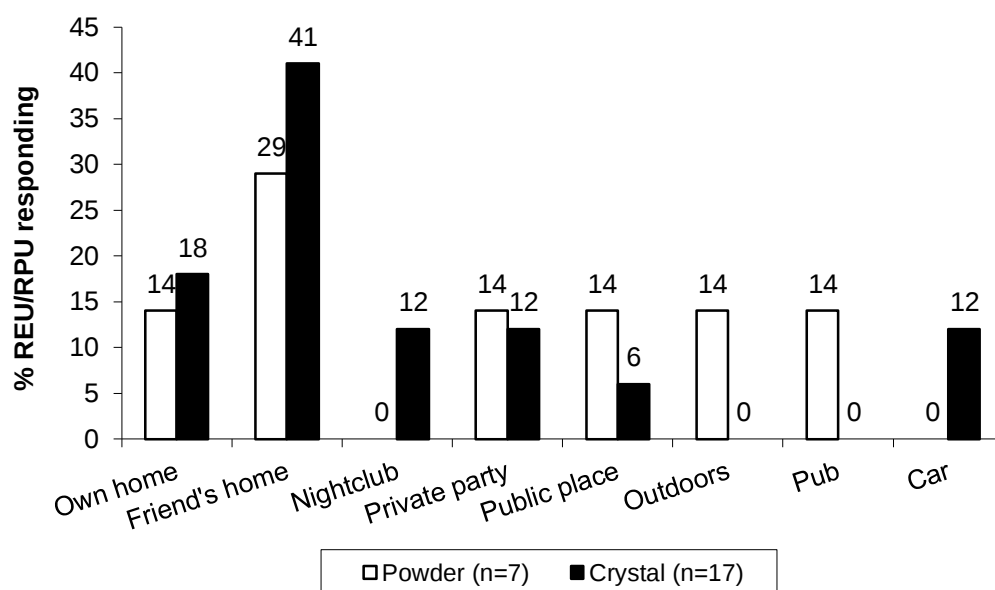
Source: WA EDRS REU/RPU interviews, 2003-2013

*Indicates significant changes from the 2012 results according to 95%CI and p=0.05

4.3.4. Locations of methamphetamine use

Participants who reported using methamphetamine in the last six months were asked the location where they spent the greatest amount of time under the influence on the last occasion of use. Figure 3 presents data for the location where the most time was spent under the influence of speed and crystal. For both speed and crystal forms of methamphetamine, the most commonly reported location was a 'friend's home', followed by 'own home'. Consistent with 2012, private settings tend to be more typically reported locations for methamphetamine use.

Figure 3: Location of most recent powder and crystal methamphetamine use, 2013



Source: WA EDRS REU/RPU interviews, 2013

4.3.5. 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 participants 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 (Australian Institute of Health and Welfare, 2011a).

Key expert comments

- Most KE reported that methamphetamine was the main drug used by people they had encountered in their fields in the preceding six months.
- Most KE also reported that it was one of the main drugs, if not the main drug, they perceived to be most problematic at this point in time.
- Most KE reported that crystal was most commonly smoked, but also snorted or injected.
- KE reported that methamphetamine use exists across the board, all ages and genders. One KE, who worked in a nightclub setting, reported that use was previously more commonly observed in males, but that females have now “caught up”.
- Most KE reported that polydrug use was common with methamphetamine, particularly in regards to alcohol and cannabis.
- A KE, who worked in nightclub/festival security, reported that crystal users don’t always exhibit problematic behaviour, but when there has been police contact, they could become very aggressive and often violent. The KE reported that meth users tended to be “on edge and paranoid “and consequently “easy to trigger”. Supporting this view, another KE, who also worked in a nightclub setting, reported that meth users often exhibit anti-social behaviour. The KE reported that meth users he/she had observed are often “very on edge, sensitive and touchy”. He reported that they often sought out physical conflict, and that they had excessive strength and energy, could be very aggressive and took excessive force to restrain. He reported that it could take up to five security guards to hold them down and that he had seen a patron on crystal tazered three times, yet remained standing. He also reported that there was a trend of body builders using crystal, as well as steroids adding to difficulty in managing this population. KE reported that nightclubs needed to employ security who were very large and/or body builders themselves so that they were able to manage the violent behaviour and strength of crystal users.

4.3.6. Summary of methamphetamine consumption

Speed

- Approximately one-third (36%) had used speed in their lifetime, significantly declining from 62% in 2012, and this did not appear to be due to the younger age of the 2013 sample. Recent use was reported by 17%, which did not significantly change from 27% in 2012.
- Speed was used on a median of five days over the preceding six months and 'swallowing' was the most common ROA reported (41%).
- Among four recent users, the frequency and quantity of use appeared to be stable from 2012 to 2013.

Base

- Only 9% of the sample had used base in their lifetime and none (0%) had done so recently.
- No further analyses were performed due to the extremely small sample size.

Crystal

- Approximately one-third (32%) had used crystal in their lifetime, which significantly declined from 58% in 2012, and, again, this did not appear to be due to the younger age of the 2013 sample. Recent use was reported by one-fifth (22%), which did not significantly change from 33% in 2012.
 - Crystal was used on a median of 6 days over the preceding six months and 'smoking' was the most common ROA reported (32%), both comparable to 2010.
 - The median amount used on a typical occasion was two points with a max of three points.
- Speed and crystal were most commonly used in private settings, either at a 'friend's home' or 'own home'.
 - Many KE considered crystal methamphetamine use to be the most problematic drug-related issue at present.

4.4. Cocaine use

As presented in Table 6, in 2013 approximately half the sample (54%) reported lifetime use of cocaine, marking a significant decline from 71% in 2012 (95%CI -0.03, -0.30). Controlling for age suggested that this was not due to the younger age of the 2013 sample. The proportion reporting recent use did not significantly change, with approximately one-third reporting recent use in both 2013 (34%) and 2012 (31%).

Of those who reported use of cocaine in the preceding six months (n=34), cocaine was used on an average of 4 days (median 1, range 1-48), which was unchanged from 2012. Of those who reported recent use of cocaine (n=34), 'snorting' was the most commonly reported route of administration (97%), followed by 'swallowing' (12%). No participants reported 'smoking' or 'injecting' as a route of administration for cocaine use in the preceding six months. Twelve participants who had used cocaine recently reported on the quantity used in grams. The median quantity reported for a 'typical occasion' was 0.5 grams, which was not significantly different to 2012. The median quantity reported for the 'heaviest occasion' was one gram, which was the same as in 2012.

In 2013, only 5% reported cocaine as their 'drug of choice', making it the sixth most common, following ecstasy, cannabis, alcohol and LSD. Of those who reported using other drugs in combination with ecstasy (n=93), cocaine was reported in this context by 7.5%.

Table 6: Patterns of cocaine use, 2003-2013

Cocaine	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	2012 REU n=65	2012 REU/RPU N=90	2013 N=100
Ever used (%)	44	36	57	55	56	66	52	49	82	72*	71*	54*
Used last six months (%)	17	16	35	29	27	40	24	26	32	32	31	34
Of those who had used in preceding 6 months												
Mean days used last 6 months	3	4	3	2	6	3	11	11	4	4	4	4
Median quantities used (grams)												
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)	1.0 (0.5-1)	.55 (.5-2)	0.5 (0.2-2)	0.5 (0.1-5)
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)	1.0 (0.5-2)	1.0 9.5-3.5)	1.0 (0.25-3.5)	1.0 (0.1-5)

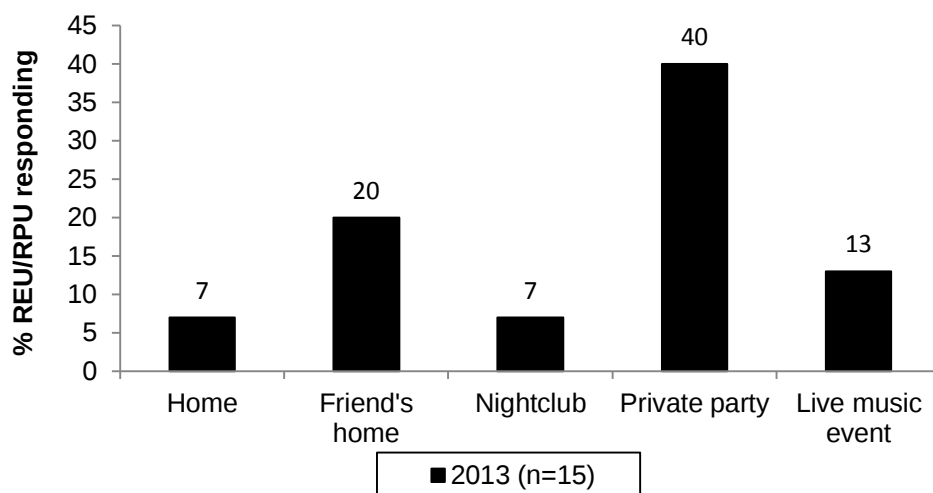
Source: WA EDRS REU/RPU interviews, 2003-2013

*Indicates significant changes from the 2012 results according to 95%CI and p=0.05

4.4.1. Locations of cocaine use

There were 15 participants who commented on the location where they spent the most time intoxicated last time they used cocaine. As presented in Figure 4, the most commonly reported location of last cocaine use was a 'private party' (40%, n=6), followed by a 'friend's home' (20%, n=3) and then a 'live music event' (13%, n=2). In 2012, 'friend's home' was the most commonly reported location of last cocaine use (42%), followed by 'own home' and 'nightclub' (each 17%). It is important to note that due to small numbers, caution should be applied in interpreting these findings.

Figure 4: Location of most recent cocaine use, 2013



Source: WA EDRS REU/RPU interviews, 2013

4.4.2. 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% (Australian Institute of Health and Welfare, 2011a).

Key expert comments

- All KE reported that they very rarely encounter cocaine use in their fields.
- One KE, who worked in a hospital setting, reported that cocaine is too expensive in WA, hence use was relatively uncommon. The KE added that people had presented who reported using cocaine, but the effects experienced were far too long to be that of cocaine use, indicating that it was probably methamphetamine sold as cocaine to naïve users.
- One KE, a peer worker, reported that cocaine use was more common among fly-in-fly-out (FIFO) workers, as cocaine is less easily detectable in workplace drug testing than other illicit drugs.

4.4.3. Summary of cocaine consumption

- Approximately half (54%) reported lifetime use of cocaine, significantly declining from 71% in 2012, and this did not appear to be due to the younger age of the 2013 sample. Approximately one-third (34%) reported recent use, which did not significantly change from 31% in 2012.
- Cocaine was used on a median of four days (i.e. less than monthly) over the preceding six months.
- Snorting remained the most commonly reported ROA (97%).
- The frequency and quantities of cocaine use remained stable from 2012 to 2013.
- Consistent with previous years, KE reported that they believed cocaine use was generally rare due to the expensive market price in WA.

4.5. Ketamine use

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

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

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

4.5.1. Ketamine use among REU

Presented in Table 7 are patterns of ketamine use for the period 2003-2013. In 2013, lifetime use of ketamine was reported by one-fifth of the sample (20%), which is comparable to 2012 (18%). Recent use of ketamine has remained relatively low and stable across data collection years. In 2013, only 7% reported recent use, compared with just 3% in 2012.

Other data pertaining to ketamine use needs to be considered in the light of the very small number of participants able to provide information. Of those who reported recent use of ketamine in 2013 (n=7), it was used on an average of 3 days (median 2, range 1-10), compared with 4 (median 5) in 2012.

While the quantity of ketamine use has typically been measured and reported in 'bumps'; in recent years no participants have reported use with this measure. In 2013, four participants reported their ketamine use in 'points', with a median of one point being used on a 'typical' occasion and two on the 'heaviest' occasion. One participant reported their ketamine use in 'lines', with three lines being used on both a 'typical' occasion and 'heaviest'. Of those participants who had used ketamine in the preceding six months (n=7), 'snorting' was the only route of administration reported.

Table 7: Patterns of ketamine use, 2003-2013

	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	2012 N=90	2013 N=100
Ever used (%)	25	21	25	14	22	21	18	14	0	18	20
Used last six months (%)	12	10	11	4	2	3	6	4	0	3	7
Of those who had used in the preceding 6 months Mean days used last 6 months	4.1	1.4	3.0	2.5	2.5	2.5 [#]	1.2	2.8	-	3.7	3
Median quantities used (bumps*)											
Typical (range)	1.5 (1-4)	1 (.5-1.5)	2 (1-6)	4 [#]	1 [#]	0.5 [#]	3 (1-5)	1.5 (1-2)	-	-	-
Heavy (range)	1.5 (1-4)	1 (1-5)	2 (1-12)	4 [#]	1 [#]	0.5 [#]	3 (1-5)	2 (1-3)	-	-	-

Source: WA EDRS REU/RPU interviews 2003-2013

[#] Based on two participants

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

Key expert comments

- Most KE reported that ketamine use was very rarely encountered in their fields.
- One KE, who worked in outreach, reported that there had been reports within their field that ketamine was being accessed online.

4.5.2. Summary of ketamine consumption

- Consistent with recent years, only a small proportion reported lifetime use of ketamine (20%) and an even smaller proportion reported recent use (7%).
- Ketamine was used on a median of two days (i.e. less than monthly) over the preceding six months.
- Different measurements of ketamine were reported to previous years, making comparison of quantities used difficult.
- For those who had used recently, 'snorting' was the only route of administration reported.
- Most KE reported that ketamine use was very rarely encountered in their fields and that they did not believe it was currently widespread amongst Perth psychostimulant users.

4.6. GHB use

Gamma-hydroxybutyrate (GHB) has been classified as a central nervous system (CNS) depressant that produces effects of sedation and anaesthesia (Kam & Yoong, 1998; Nicholson & Balster, 2001). Clinical studies have found that GHB has some similarities to other CNS depressants such as benzodiazepines and alcohol (Nicholson & Balster, 2001). GHB has been used for a variety of medical purposes, such as anaesthesia, and for the treatment of a variety of conditions including sleep disorders, obesity, alcohol dependence and opiate withdrawal (Chin, Kreutzer & Dyer, 1992; Kam & Yoong, 1998; Nicholson & Balster, 2001). However, clinical trials have revealed a wide array of potential adverse effects including dizziness, nausea, weakness, confusion and agitation, drowsiness, and coma (Chin, Kreutzer & Dyer, 1992; Galloway et al., 1997; Nicholson & Balster, 2001). There is also some evidence indicating that tolerance and physical dependence can occur (Galloway et al., 1997).

In recent years, GHB has been acknowledged as a recreational drug in Australia and in other parts of the world, including the US (Degenhardt, Darke & Dillon, 2002). On the 'streets', GHB is also illicitly known as GBH, 'grievous bodily harm', 'fantasy', and 'liquid ecstasy'. An Australian study that interviewed GHB users revealed that the majority of those who reported using this drug recreationally experienced significant adverse effects, including loss of consciousness, vomiting, profuse sweating and a small proportion experienced fitting or seizure (Degenhardt, Darke & Dillon, 2002).

4.6.1. GHB use among REU/RPU

Rates of GHB use among WA EDRS samples have consistently been low. In 2013, only 9% of the sample reported lifetime use of GHB, compared to 4% in 2012. Unlike recent years where there were no reports of recent use, 3% of the current sample reported recent use of GHB. Of those who had used in the preceding six months, GHB was used on a median of two days (range 2-20) and 'swallowing' was the only route of administration reported. In light of the very small sample size (n=3), no further analyses were performed for GHB.

Key expert comments

- Most KE reported that GHB was very rarely encountered in their fields.
- One KE, who worked in drug analysis, reported that there had been an increase in GHB samples received in the past 12 months.
- One KE, who worked in a nightclub setting, reported that a liquid hallucinogenic referred to as 'fantasy' had been rampant in the nightclub scene recently. 'Fantasy' is a common street name for GHB, hence it is possible that this KE was referring to GHB.
- A KE, who was a peer worker, reported that they believed there had been a slight increase in GHB use in the period. This view was again supported by another KE, who worked in outreach, who reported that they had heard reports of an increase in GHB availability and use.

4.7. LSD use

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

LSD is usually adhered to perforated sheets (Australian Crime Commission, 2007). Small paper squares ('tabs') are detached from these sheets and usually decorated with designs which can often be culturally specific to the user groups. LSD is potent, so trips are often cut into halves or quarters and shared with others.

4.7.1. LSD use among REU/RPU

As presented in Table 8, lifetime use of LSD was reported by approximately two-thirds of the current sample (66%), which was not significantly different to 57% in 2012. Recent use of LSD also didn't significantly change, with approximately two-fifths reporting use in 2013 (41%) compared with one-third (33%) in 2012.

In 2013, LSD was used on an average of six days (median 4, range 1-48) over the preceding six month period, which did not significantly change from five days (median 2) in 2012. The median amount of LSD used on both a 'typical' occasion and the 'heaviest' occasion was one tab. Consistent with previous years, 'swallowing', or sub-lingual use, was the only route of administration reported.

In 2013, LSD was the fourth most commonly reported 'drug of choice', following ecstasy, cannabis, and alcohol, and was nominated by 9% of the sample. In 2012, 9% also nominated LSD as their drug of choice. Of those who reported using other drugs in combination with ecstasy on the last occasion of use (n=93), LSD was reported in this context by 7.5% (n=7).

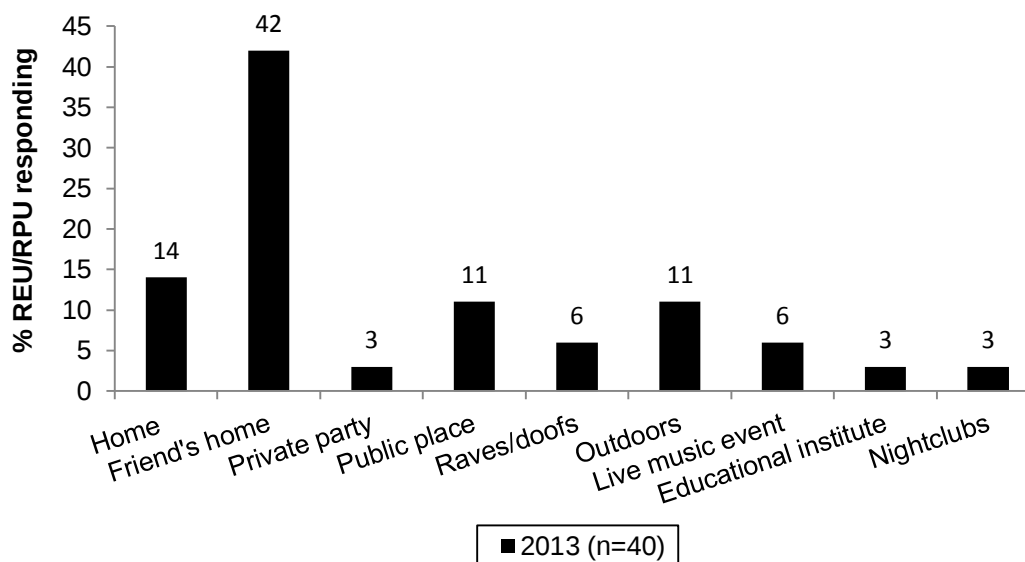
Table 8: Patterns of LSD use, 2003-2013

LSD	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	2012 N=90	2013 N=100
Ever used (%)	62	50	71	67	49	47	69	48	71	57	66
Used last six months (%)	22	11	35	25	23	21	31	35	36	33	41
Of those who had used in the preceding 6 months											
Mean days used last 6 months	3	3	5	3	5	8	6	5	6	5	6
Median quantities used (tabs)											
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)	1.0 (0.50-2)	1.4 (0.25-4)	1.0 (0.25-10)
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)	1.75 (0.5-3)	1.9 (0.5-7)	1.0 (0.25-50)

Source: WA EDRS REU/RPU interviews, 2003-2013

In 2013, 41 participants commented on the location where they spent the most time under the influence of LSD on the last occasion of use. As shown in Figure 5, 'friend's home' was the most commonly reported location (42%, n=15), followed by 'own home' (14%, n=5), and then 'outdoors' and 'public place' (each 11%, n=4). Consistent with previous years, private settings tend to be more commonly reported locations for LSD use.

Figure 5: Location of most recent LSD use, 2013



Source: WA EDRS REU/RPU interviews, 2013

Key expert comments

- Most KE reported that LSD use was not commonly encountered in their fields.
- One KE, who worked in mental health, reported that they had observed an increase in recent LSD use and that there were people presenting to emergency services with psychotic symptoms related to reported LSD use.
- A KE, who worked in crowd control, reported that it was not uncommon to see people under the influence of LSD in nightclub and festival settings.
- Two KE, one from outreach and one from a counselling service, expressed concern over NBOMe being sold as LSD, making it difficult to determine what the person had actually consumed. They added that this make treatment challenging.

4.7.2. Summary of LSD consumption

- Approximately two-thirds (66%) of the current sample reported LSD use in their lifetime and about two-fifths (41%) reported recent use. While there were no significant increases observed for LSD, the rate for recent use represents the highest recorded since WA data collection commenced in 2003.
- LSD was used on a median of four days (i.e. less than monthly) over the preceding six months.
- LSD was taken orally by all participants (sub-lingual).
- The most commonly reported location of last LSD use was at a 'friend's home'.
- KE expressed concern over NBOMe being marketed and sold as LSD.

4.8. Cannabis use

As shown in Table 9, consistent with previous years, nearly the entire sample (98%) reported lifetime use of cannabis. Recent use of cannabis was also reported by the majority of the sample (92%), which represents a significant increase from 77% in 2012. This figure also marks highest rate of recent cannabis use since the WA EDRS commenced in 2003.

Of those reporting recent use (n=93), cannabis was used on an average of 65 days (median 27, range 1-180) in the preceding six month period (i.e. once per week), which did not significantly change from 71 days (median=48) in 2012. The proportion reporting daily use of cannabis was 17%, which was the same as in 2012. The most commonly reported route of administration was 'smoking' (99%, n=89), followed by 'swallowing' (33%, n=30).

Participants were asked how much cannabis they consumed during their last session. Of those who reported their use in 'cones' (n=61), a median of three cones (range 1-50) were consumed during a session. This represents the same median observed in 2012. Of those who reported their use in 'joints' (n=17), a median of one joint (range 0.5-310) was consumed, which compared to two joints in 2012.

Table 9: Patterns of cannabis use, 2003-2013

Cannabis	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	2012 N=90	2013 N=100
Ever used %	99	97	99	100	96	100	99	99	100	99	98
Used last six months %	91	85	83	86	80	85	85	81	86	77	92*
Of those who had used in preceding 6 months											
Mean days used last 6 months	61	69	85	77	75	49	81	60	113	71	65

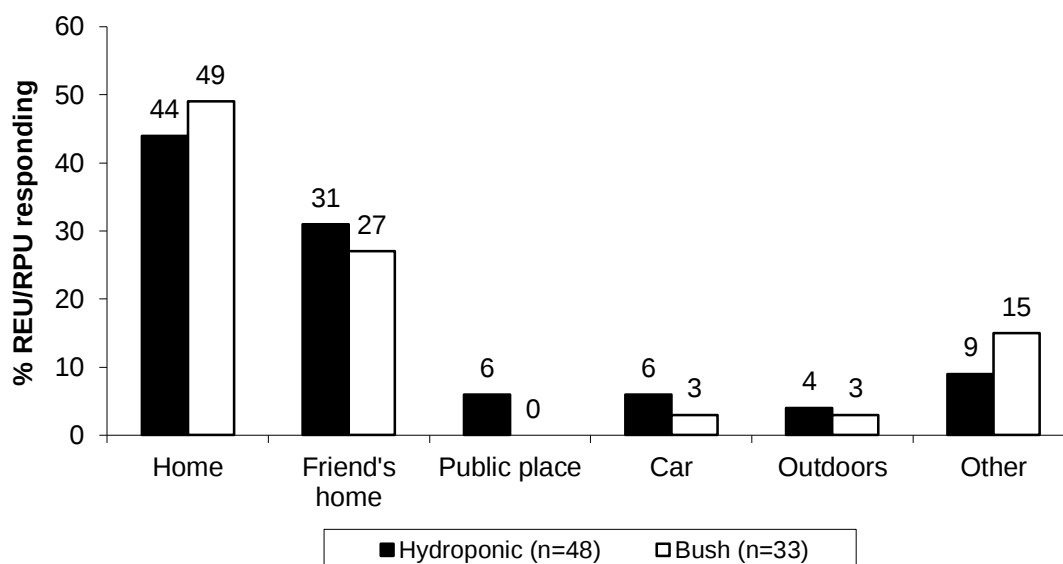
Source: WA EDRS REU/RPU interviews, 2003-2013

*Indicates significant changes from the 2012 results according to 95%CI and p=0.05

The median age of first cannabis use in the current sample was 15 years (range 8-25). Cannabis was the second most commonly reported drug of choice, second only to ecstasy, and was nominated by one-fifth of the sample (20%). Of those who reported using other drugs with ecstasy (n=93), cannabis was reported in this context by 38% (n=35). Among those reporting the use of other drugs to 'come down' from ecstasy (49%), 69% (n=34) reported using cannabis in this context.

Participants were asked to report on the location where they spent the most time intoxicated last time they used cannabis. The greatest proportion reported that the most time was spent at 'own home' for both hydroponic (44%) and bush (49%). The second most commonly reported location spent intoxicated was at a 'friend's home', again for both hydroponic (31%) and bush (27%). Consistent with previous years, it is evident that cannabis is most typically used in private settings. A full breakdown of locations of cannabis use is presented in Figure 6.

Figure 6: Location of most recent cannabis use, 2013



Source: WA EDRS REU/RPU interviews, 2013

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 was 13% compared with the national average of 10%. Only the Northern Territory with approximately 16% reporting recent cannabis use was higher. (Australian Institute of Health and Welfare, 2011a).

Key expert comments

- KE reported that cannabis was very widely used across WA.
- KE reported that both hydro and bush forms of cannabis continue to be used, but that hydro was more commonly available and more commonly used.
- KE reported that cannabis was mainly smoked, predominantly bongs, but joints and pipes were also common.
- Two KE, who worked in hospital settings, reported that cannabis use continues to have a significant impact on mental health of users. KE reported that most cannabis users they encounter suffered from anxiety and some also from psychosis. One KE reported that a lot of people they encountered in their field used cannabis to 'self-medicate' issues related to sleeping, anxiety and depression.
- One KE, who worked in a hospital setting, reported seeing cannabis users present to the emergency department with a condition known as Cannabinoid Hyperemesis, a disorder that is characterised by recurrent nausea, vomiting and abdominal pain.

4.8.2. Summary of cannabis consumption

- Consistent with previous years, almost the entire sample (98%) reported lifetime use of cannabis; and a similar proportion (92%) reported recent use. The proportion reporting recent use (92%) not only marked a significant increase from 77% in 2012, it marked the highest rate recorded since WA data collection commenced in 2003.
- Cannabis was used on a median of 27 days (i.e. approximately once per week) over the preceding six month period.
- The use of cannabis had remained relatively stable across survey years.
- KE reported that cannabis use continued to be one of the most problematic drug issues in their field, particularly in relation to mental health.

4.9. Other drugs used

4.9.1. Alcohol

Both lifetime (100%) and recent (96%) use of alcohol were reported by almost the entire sample, with similar proportions to previous years (see Table 2). Consistent with previous years, the median age of first alcohol use was 14 years (range 7-21). Alcohol was used on a median of 48 days (range 2-180), which equates to approximately twice a week. Three participants reported drinking alcohol daily.

Key expert comments

- KE in all fields (health, law enforcement, entertainment) and settings (hospitals, first aid, treatment centres, nightclubs/pubs and festivals) reported that alcohol use was by far the most widespread and problematic drug in WA. Several KE reported that they believed this was due to the drinking culture in WA and across Australia where alcohol is normalised, freely available and fairly inexpensive.
- KE reported that alcohol was commonly used in combination with other drugs.
- A KE, who worked in a nightclub setting, reported that alcohol sales in nightclubs had decreased in recent years as a consequence of increases in alcoholic drink prices in pubs/clubs. The KE reported that many people could no longer afford to purchase their alcohol when they're out and that this encouraged 'pre-loading' or 'pre-drinking' behaviour. Two KE expressed ongoing concern over this increasing 'pre-drinking' culture, as it is now common for people to present to venues already intoxicated. KE reported that nightclub staff were now having to manage intoxicated behaviour at the beginning of the night, instead of the end.
- KE from hospital settings reported that alcohol accounts for approximately 60% of all alcohol and other drug (AOD) cases. They also reported that use was pervasive in all ages, from 16 to 80 year olds. In the 18-26 year old age group, common problems included binge drinking, violence, and alcohol related trauma, whereas in the 30 years and older age group problems included pancreatitis, heart and liver conditions. Depression was also reported as a common problem in long-term chronic users. Male cases were reported to be twice as common as female cases.

4.9.2. Tobacco

Rates of tobacco use among EDRS samples have been consistently high across survey years. In 2013, the majority (88%) reported tobacco use at some point in their lifetime; this did not significantly change from 96% in 2012. Approximately three quarters of the current sample (75%) also reported recent use of tobacco; this also did not significantly change from 67% in 2012. Consistent with previous years, the median age of first tobacco use was 16 (range 8-23). Among those that had used tobacco in the preceding six months, the median number of days used during this period was 96 (range 2-180) (i.e. four times per week), which did not significantly change from 158 days in 2012.

In 2013, two-fifths of those that had used tobacco in the last six months (39%, n=29) were daily smokers. Therefore, almost one-third (29%) of the entire sample were daily smokers. There was a similar proportion of daily smokers in the 2012 sample (32%).

4.9.3. MDA

MDA (3,4-methylenedioxyamphetamine) is part of the phenethylamine family and like ecstasy is classed as a stimulant hallucinogen. In 2013, lifetime use of MDA was reported by 18% of the sample, which was not significantly different to 2012 findings (17%). Recent use was reported by 12% of the current sample, which was again not significantly different to 2012 findings (4%).

Of those who had used recently (n=12), MDA was used on a median of one day (range 1-5) during this period, consistent with 2012 findings. Participants were asked to report on the average amount they had used on a typical occasion of use and the most they had used over one occasion in the preceding six month period. The median amount of capsules used on a typical occasion was one and the most was two caps. All participants reported 'swallowing' as the route of administration. Participants were not asked to report on price, potency 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 EDRS 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 the EDRS.

Taken together (licit or illicit use), approximately three-quarters (77%) reported pharmaceutical stimulant use at some point in their lifetime, representing a significant decrease from 93% in 2012 (95%CI 0.06, 0.26). Controlling for age suggested that this was not due to the younger age of the 2013 sample. Approximately two-thirds (64%) of participants in 2013 reported pharmaceutical stimulant use in the six months preceding the interview. This was the same proportion as in 2012. Table 10 presents a comparison of those reporting recent illicit versus licit use of pharmaceutical stimulants. It should be noted that there was an extremely small sample (n=2) for licit use and, therefore, these findings should be interpreted with extreme caution.

Licit pharmaceutical stimulants

In the current sample, 8% reported having ever used pharmaceutical stimulants when they were prescribed to them (i.e. licitly obtained), however only 2% (n=2) reported recent use. Licitly obtained pharmaceutical stimulants were first used at a median age of 10 years (range 5-18). One participant reported daily use of pharmaceutical stimulants and the other reported using five days over the preceding six month period. 'Swallowing' was the only route of administration reported.

Illicit pharmaceutical stimulants

In the current sample, approximately three-quarters (74%) reported having ever used pharmaceutical stimulants when they were not prescribed to them (i.e. illicitly obtained) and approximately two-fifths (62%) reported recent use. Illicitly obtained pharmaceutical stimulants were first used at a median age of 17 years (range 6-28). Of those who had used recently (n=62), pharmaceutical stimulants had been used on a median of six days in the preceding six month period (i.e. once a month). Both 'swallowing' (95%, n=59) and 'snorting' (50%, n=31) were reported as routes of administration.

Table 10: Recent illicit versus licit use of pharmaceutical stimulants, 2013

Use of pharmaceutical stimulant	Illicit (n=62)	Licit (n=2)
Median age first used	17	10
Days used last six months (median)	6	93
Amount typically used (median tabs)	3	5
Most amount used (median tabs)	5	6
Route of administration:		
Swallowed	95%	100%
Snorted	50%	0%
Smoked	0%	0%
Injected	0%	0%

Source: WA EDRS REU/RPU interviews, 2013

4.9.5. Benzodiazepines

Use of benzodiazepines was also divided into licit and illicit use in 2009. Taken together (licit or illicit use), lifetime use of a benzodiazepine was reported by more than half (55%) of the current sample, which did not significantly change from 56% in 2012. One-third (33%) of the sample reported using a benzodiazepine in the preceding six months.

Licit benzodiazepines

In the current sample, 12% reported having ever used a benzodiazepine when they were prescribed to them (i.e. licitly obtained) and only 6% reported recent use. Licitly obtained benzodiazepines were first used at a median age of 18 years (range 15-28). Of those who reported recent use (n=6), benzodiazepines were used on a median of 24 days (range 6-180) in the preceding six month period, which equates to approximately once per week. 'Swallowing' was the only route of administration reported. It should be noted that there was a very small sample (n=6) for licit use and these findings should, therefore, be interpreted with caution.

Participants who had recently used licit benzodiazepines were asked the main type they had used over the preceding six months; the most commonly reported was diazepam (33%, n=3), followed by clonazepam, oxazepam and nitrazepam (each 17%, n=1).

Illicit benzodiazepines

Approximately half of the current sample (51%) reported having ever used a benzodiazepine when they were not prescribed to them (i.e. illicitly obtained) and approximately one-third (32%) reported recent use. Illicitly obtained benzodiazepines were also first used at a median age of 18 years (range 13-27). Of those who reported recent use (n=32), benzodiazepines had been used on a median of six days (range 1-48) over the preceding six month period, which equates to approximately once per month. Three different routes of administration were reported, the most common being 'swallowing' (94%, n=30), followed by 'snorting' (19%, n=6) and then 'smoking' (6%, n=2).

Participants who had recently used illicit benzodiazepines were asked the main type they had used over the preceding six months; the most commonly reported was diazepam and alprazolam (each 47%, n=14), followed by clonazepam and temazepam (each 35%, n=1).

4.9.6. Anti-depressants

Use of anti-depressants was also divided into licit and illicit use. Taken together (licit or illicit use), lifetime use of an anti-depressant was reported by approximately one-third of the current sample (31%), which did not significantly change from 29% in 2012. Recent use of an anti-depressant was reported by 18%, which again did not significantly change from 2012 (8%).

Licit anti-depressants

In the current sample, one-quarter (25%) reported having ever used an anti-depressant when they were prescribed to them (i.e. licitly obtained) and 14% reported recent use. Licitly obtained anti-depressants were first used at a median age of 17 years (range 10-45). Of those who reported recent use (n=14), anti-depressants were used on a median of 120 days (range 3-180) in the preceding six month period, which equates to approximately five days per week. 'Swallowing' was the only route of administration reported.

Illicit anti-depressants

In the current sample, only 8% reported having ever used anti-depressant when they were not prescribed to them (i.e. illicitly obtained) and only 4% reported recent use. Illicitly obtained anti-depressants were first used at a median age of 18 years (range 15-22). Of those who reported recent use (n=4), anti-depressants had been used on a median of 90 days (range 1-180) in the preceding six month period, which equates to approximately every second day. 'Swallowing' was the most common route of administration reported (n=3); however, one participant reported 'snorting'. It should be noted that there was an extremely small sample (n=4) for illicit use, therefore these findings should be interpreted with caution.

4.9.7. Inhalants

Participants were asked about their use of the inhalants amyl nitrate and nitrous oxide (see Table 2).

Amyl Nitrate

In 2013, lifetime use of amyl nitrate was reported by 14%, which did not significantly change from 24% in 2012. The median age of first use of amyl nitrate was 19 years (range 16-25). Recent use of amyl nitrate was reported by 7%, which did not significantly change from 10% in 2012. Amyl nitrate was used on a median of one day (range 1-5) during the preceding six month period. The amounts used on a 'typical' occasion have not been recorded since the 2009 EDRS.

Nitrous Oxide

Throughout survey years, nitrous oxide has consistently been the more popular inhalant of use. In 2013, lifetime use of nitrous oxide was reported by approximately half of the sample (46%), which did not significantly change from 2012 (53%). The median age of first use of nitrous oxide was 17 years (range 14-26). Recent use of nitrous was reported by one-third of the current sample (32%), which again did not significantly change from 2012 (26%). Nitrous oxide was used on a median of six days (range 1-130) during this period (i.e. monthly use), compared to one day in 2012. The median amount used on a typical occasion was 10 bulbs (range 1-200) and the median amount for the most used was 20 bulbs (range 1-700).

4.9.8. Heroin and other opiates

Given extremely small sample sizes for recent heroin and other opiate use, these findings should be interpreted with caution.

Heroin

Rates of heroin use among EDRS samples have been consistently low across survey years. In the current sample, 6% reported lifetime use of heroin, which was the same proportion as in 2012. The median age of first heroin use was 18 years (range 12-23). Of the six participants who reported lifetime use of heroin, four reported having ever 'injected', two reported ever 'smoking', and one reported ever 'snorting'.

Recent use of heroin was reported by 2% of the current sample, which was comparable to 1% in 2012. The median amount of days heroin was used in the preceding six month period was 12 (range 9-15), which equates to approximately once per fortnight. One participant reported 'injecting' and one reported 'smoking' as the route of administration.

Methadone and buprenorphine

As with heroin, rates of methadone and buprenorphine use have been consistently low across years (see Table 2). In the current sample, only one participant reported lifetime use of methadone, which was comparable to two participants in 2012. The participant was aged 16 years old at the age of first use and 'swallowing' was reported at the route of administration. Consistent with recent years, no participants reported recent use of methadone.

Lifetime use of buprenorphine was reported by 3% of the current sample, which is the same proportion as in 2012. The median age of first use of buprenorphine was 19 years (range 16-25). Routes of administration included 'injecting' (n=1), 'smoking' (n=1) and 'swallowing' (n=2). As in 2012, no participants reported recent use of buprenorphine.

Other opiates

This drug class includes morphine, pethidine, oxycodone and various preparations containing codeine. Use of 'other opiates' was divided into illicit and licit use for the first time in 2009. Taken together (licit and illicit), approximately one-third of the current sample (29%) reported lifetime use of 'other opiates', which significantly decreased from almost half (46%) in 2012 (95%CI 0.03, 0.30); however, controlling for age suggested that this decrease was due to the younger age of the 2013 sample. Recent use was reported by 15%, which did not significantly change from 20% in 2012.

Licit other opiates

In the current sample, 8% reported having ever used an 'other opiate' when it was prescribed to them (i.e. licitly obtained) and only 4% reported recent use. Licitly obtained other opiates were first used at a median age of 20 years old (range 16-47). Of those who reported recent use (n=4), other opiates were used on a median of 8 days (range 1-96) in the preceding six month period, which equates to approximately once every three weeks. 'Swallowing' was the only route of administration reported.

Illicit other opiates

In the current sample, approximately one-quarter (23%) reported having ever used an 'other opiate' when it was not prescribed to them (i.e. illicitly obtained) and approximately one-tenth (12%) reported recent use. Illicitly obtained other opiates were first used at a median age of 18 years (range 15-24). Of those who reported

recent use (n=12), other opiates had been used on a median of 6 days (range 1-90) in the preceding six month period, which equates to approximately once per month. Of the 12 participants who reported recent use, 11 reported 'swallowing', two reported 'snorting', one reported 'injecting' and one reported 'shelving' as routes of administration.

Over-the-counter codeine

For the first time in 2009, participants were asked about their use of over-the-counter codeine for non-pain use (i.e. recreational purposes). In 2013, lifetime use of over-the-counter codeine was reported by approximately one-quarter of the sample (23%), which is comparable to 20% in 2012. The median age of first use was 18 years (range 10-25). Recent use was reported by 15% of the current sample, which is comparable to 14% in 2012. Of those who reported recent use (n=15), over-the-counter codeine was used on a median of three days over the preceding six month period (i.e. once every two months). All reported 'swallowing' (100%) and one participant (7%) reported 'snorting' as routes of administration.

Key expert comments

- Most KE reported that they rarely encountered heroin and other opioids in association with ecstasy and related drug users.
- A KE, who worked in a hospital setting, reported observing an increase in heroin cases in the preceding six months, with 164 cases in March alone. The KE speculated that this could be reflective of an increase in the availability and a decrease in price of heroin in the Perth market. They added that they would really like to see an improvement in streamlining patients from hospital discharge into treatment programs such as methadone. The KE also reported that there had been a slight increase in other opioid cases as well (e.g. diverted MS Contin, Panadeine Forte, etc.) presenting with issues such as gastrointestinal bleeding.
- Another KE, who worked in mental health, reported that they continued to encounter consistent reports of other-opioid use, particularly Oxycontin, pethidine and 'grey nurses' (100 mg of morphine). The KE added that they had observed an increase in waiting lists to get on opioid replacement therapies in this period, and noted that services were now having to direct clients to services outside of their area for assessments.

4.9.9. Hallucinogenic mushrooms

In 2013, the proportion of participants reporting lifetime use of 'magic' mushrooms significantly decreased, with 70% reporting lifetime use in 2012, compared to 44% in the current sample (95%CI 0.12, 0.39); however, further analyses controlling for age suggested that this finding was due to the younger age of the 2013 sample. The median age of first mushroom use was 18 years old (range 13-25). The proportion reporting recent use of mushrooms also decreased, with 26% in 2012 compared to 17% in the 2013; however, this decrease was not significant. For those who reported recent use (n=17), mushrooms were used on a median of two days (range 1-10) in the preceding six month period, comparable to one day in the 2012 sample. All participants reported 'swallowing' as the route of administration and one also reported 'smoking' mushrooms.

4.9.10. Over-the-counter stimulants

For the first time in 2009, REU were questioned about their use of over-the-counter stimulants for non-pain use (i.e. recreational purposes). This drug class includes cold and flu medication containing pseudoephedrine. Consistent with 2012, reported use of over-the-counter stimulants remained low. From the current sample, 7% reported lifetime use and only 5% reported using recently. This compares with 8% reporting lifetime use in 2012, and 2% for recent use. The median age for first use of over-the-counter stimulants was 16 years (range 14-20). Of those who had used over-the-counter stimulants recently (n=5), they were used on a median of 13 days (range 2-120) in the preceding six month period (i.e. approximately fortnightly). All participants reported 'swallowing' as the route of administration. It should be noted that, given the small sample size, findings for over-the-counter stimulants should be interpreted with caution.

4.9.11. Steroids

For the first time in 2010, participants were asked to report on steroid use. Consistent with previous years, the proportion reporting steroid use in 2013 remained extremely low and findings should, therefore, be interpreted with extreme caution. In the current sample, only one participant (1%) reported using a steroid at some point in their lifetime and they also reported using steroids recently. The age of first steroid use was 20 years old. Steroids were reported to have been used 48 days in the preceding six month period, which equates to approximately twice a week.

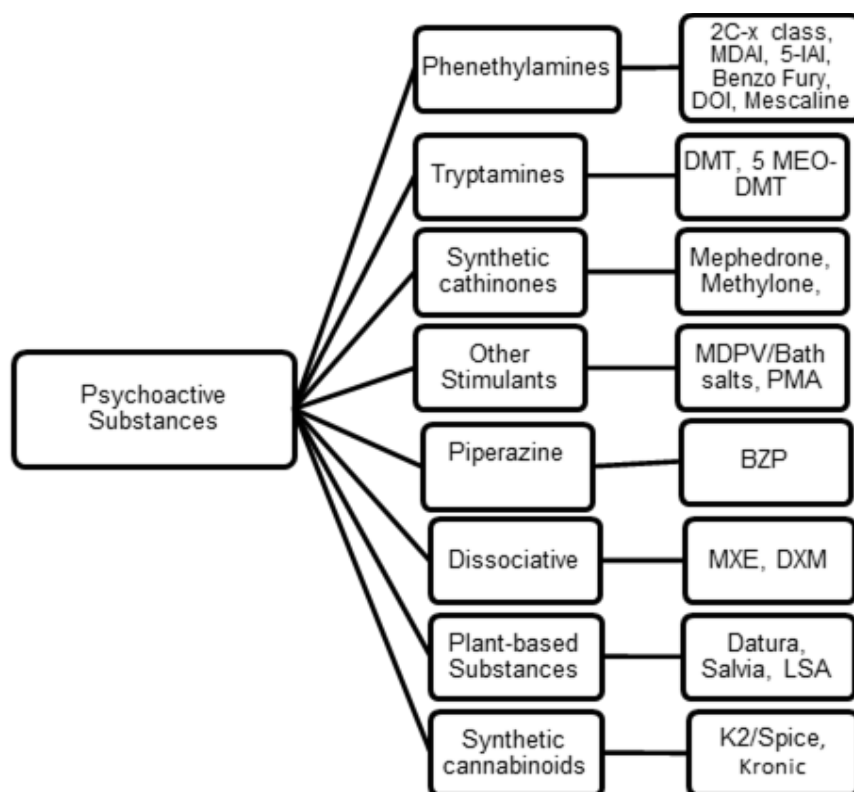
Key expert comments

- A KE, who worked in nightclub security, reported that there were male subgroups of partygoers that engaged in polydrug use with steroids, methamphetamine and alcohol. The KE reported that they often exhibited excessive strength, aggression and anti-social behaviour. The KE noted that at a security level, this 'trend' is becoming increasingly difficult to manage.

4.10. New psychoactive substance (NPS) use

From 2010 onward, the EDRS attempted to systematically investigate a range of new psychoactive substances (analogues, legal highs, herbal highs, party pills). Some of these drugs can be classified according to Figure 7.

Figure 7: Psychoactive substances investigated by the EDRS



*For abbreviations, see list on page viii.

Psychedelic refers to “a mental state of enlarged consciousness, involving a sense of aesthetic joy and increased perception transcending verbal concepts” or “denoting or relating to any of a group of drugs inducing such a state, especially LSD” (Macquarie Dictionary).

Phenethylamine is a neurotransmitter that is an amine resembling amphetamine in structure and pharmacological properties. Derivatives of phenethylamine are referred to as phenethylamines (Merriam-Websters Medical Dictionary).

Tryptamine is a crystalline amine derived from tryptophan. Substituted derivatives of this amine, some of which are significantly hallucinogenic or neurotoxic, are known as ‘tryptamines’ (Merriam-Websters Medical Dictionary).

Table 11 provides a very brief introduction to these drugs to provide a rough guide for interpreting trends data. Interested readers are directed toward online sources such as Erowid (<http://www.erowid.org/splash.php>) and Drugscope (<http://www.drugscope.org.uk/>) for more comprehensive information on these drugs.

Table 11: New psychoactive substances (NPS)

Street name	Chemical name	Information on drug	Information on use and effects
2C-I	2,5-dimethoxy-4-iodophenethyl-amine	A psychedelic drug with stimulant effects	A standard oral dose is between 1-25mg. Recent reports suggest that 2-CI is slightly more potent than the closely related 2-CB
2C-B	2,5-dimethoxy-4-bromophenethyl-amine	A psychedelic drug with stimulant effects	The dosage range is listed as 16-24mg. 2CB is sold as a white powder sometimes pressed in tablets or gel cap. Usually taken orally but can be snorted
2C-E	2,5-dimethoxy-4-ethylphenethyl-amine	A psychedelic drug with stimulant effects	Active orally in 10-20mg range. Commonly taken orally and highly dose-sensitive. Snorting requires a much lower dose, normally not exceeding 5mg
DOI (death on impact)	2,5-dimethoxy-4-iodoamphetamine	A psychedelic phenethylamine	Requires only very small dosages to produce full effects. It is uncommon as a substance for human ingestion but common in research. Has been found on blotting paper and may be sold as LSD ¹
Mescaline	3,4,5-trimethoxyphenethylamine	A hallucinogenic alkaloid	First isolated in 1896 from the peyote cactus of northern Mexico
DMT	N, N- dimethyltryptamine	A psychadelic drug in the tryptamine family	Similar to LSD, though its effects are said to be more powerful. DMT is a powerful, visual psychedelic which produces short-acting effects when smoked ² . Pure DMT is usually found in crystal form but has been reportedly sold in powder form ³

¹ Erowid: <http://www.erowid.org/chemicals/doi/doi.shtml>.

² Erowid: <http://www.erowid.org/chemicals/dmt/>

³ Drugscope: <http://www.drugscope.org.uk/resources/drugsearch/drugsearchpages/dmt>).

Street name	Chemical name	Information on drug	Information on use and effects
5MEO-DMT	5-methoxy-N,N-dimethyltryptamine	A naturally occurring psychedelic tryptamine present in numerous plants and in the venom of the <i>Bufo alvarius</i> toad	It is found in some traditional South American shamanic snuffs and sometimes in Ayahuasca brews. It is comparable in effects to DMT; however, it is substantially more potent. 5 MEO-DMT is mostly seen in crystalline form ⁴
Mephedrone	4-methyl-methcathinone	A stimulant which is closely chemically related to amphetamines	Reportedly produces a similar experience to drugs like amphetamines, ecstasy or cocaine. Mephedrone is a white, off-white or yellowish powder although it may also appear in pill or capsule form. Mephedrone is probably the most well-known of a group of drugs derived from cathinone (a chemical found in the plant called khat) ⁵
BZP	1-benzylpiperazine	A piperazine; a CNS stimulant.	Gained popularity in some countries in the early 2000s as a legal alternative to amphetamines and ecstasy. One of the more common piperazines, providing stimulant effects which people describe as noticeably different than those of amphetamines. Not particularly popular as many people find that it has more unpleasant side effects than amphetamines ⁶

⁴ Erowid: http://www.erowid.org/chemicals/5meo_dmt/5meo_dmt.shtml.

⁵ Drugscope: <http://www.drugscope.org.uk/resources/drugsearch/drugsearchpages/mephedrone>.

⁶ Erowid: http://www.erowid.org/chemicals/bzp/bzp_basics.shtml.

Street name	Chemical name	Information on drug	Information on use and effects
Ivory wave or 'bath salts'	3,4-methylenedioxypyrovalerone or MDPV	A cathinone derivative.	More potent than other cathinones. Lidocaine (a common local anaesthetic) is frequently used as a cutting agent, to give users the numbing sensation in the mouth or nose which is associated with drugs of high potency (e.g. high-potency cocaine) ⁷ . It is known for its tendency to cause compulsive redosing and some users report sexual arousal as an effect. MDPV has been found in products sold as 'bath salts' and 'plant food/fertilizer'. ⁸ It has recently received media attention for its involvement in a number of bizarre deaths in the US and Australia
DXM	Dextromethorphan	A semisynthetic opiate derivative which is legally available over the counter in the US	DXM is most commonly found in cough suppressants, especially those with 'DM' or 'Tuss' in their names. DXM is a dissociative drug ⁹
PMA	Paramethoxyamphetamine; 4-methoxy-amphetamine	A synthetic hallucinogen that has stimulant effects	Ingesting a dose of less than 50 milligrams (usually one pill or capsule), without other drugs or alcohol, induces symptoms reminiscent of MDMA although PMA is more toxic than MDMA. Doses over 50 milligrams are considered potentially lethal (due to the risk of overheating)
Datura	(commonly <i>Datura inoxia</i> and <i>Datura stramonium</i>) Contains: Atropine and Scopolamine	Atropine is a potent anticholinergic agent. Scopolamine is a CNS depressant and has antimuscarinic properties	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

⁷ Drugscope:

http://www.drugscope.org.uk/ourwork/pressoffice/pressreleases/ivory_wave_MDPV.

⁸ Erowid: <http://www.erowid.org/chemicals/mdpv/>

⁹ Erowid: http://www.erowid.org/chemicals/dxm/dxm_basics.shtml

Street name	Chemical name	Information on drug	Information on use and effects
			cause unconsciousness and death ¹⁰
Salvia	<i>Salvia divinorum</i> (contains Salvinorin A)	Salvia is derived from the American plant <i>Salvia divinorum</i> , a member of the mint family	At low doses (200-500mcg) salvia produces profound hallucinations that last from 30 minutes to an hour or so. In higher doses the hallucinations last longer and are more intense ¹¹
LSA	<i>d</i> -lysergic acid amide	LSA is a naturally occurring psychedelic found in many plants such as morning glory and hawaiian baby woodrose seeds	LSA has some similarities in effect to LSD, but is generally considered much less stimulating and can be sedating in larger doses
K2/Spice	Synthetic cannabinoid	Usually sold as loose, generic plant material with a mix of chemicals on it (containing synthetic cannabinoids)	A psychoactive herbal and chemical product that, when consumed, mimics the effects of cannabis
Methylone	3,4-methylenedioxy- <i>N</i> -methylcathinone	An entactogen and stimulant of the phenethylamine, amphetamine, and cathinone classes	Reported dosages range from 100 to 250mg orally. Effects are primarily psychostimulant in nature
MPTP	1-methyl-4-phenyl-1,2,5,6-tetrahydropyridine	MPTP is a contaminant that can result during the synthesis of MPPP, an illicit analogue of the opioid meperidine	MPTP is a known industrial toxin which causes Parkinsonian symptoms on users by destroying dopaminergic neurons in the substantia nigra. It was responsible for a rash of Parkinsons-like cases in the early 1980s

4.10.1. NPS classes

The EDRS began to systematically investigate new psychoactive substances (NPS) (formerly known as emerging psychoactive substances or EPS) in 2010. With the exception of a few NPS, reported use across years has been low. In 2013, the most commonly reported NPS ever used were synthetic cannabis (45%), DMT (33%), 2C-I (20%) and 2C-B (15%). The most commonly reported NPS recently used were DMT (22%), synthetic cannabis (20%), 2C-I (17%) and 2C-B (8%). A complete breakdown of new psychoactive substances used among Perth REU/RPU is presented by class below.

¹⁰ Drugscope: <http://www.drugscope.org.uk/resources/drugsearch/drugsearchpages/datura>

¹¹ Drugscope: <http://www.drugscope.org.uk/resources/drugsearch/drugsearchpages/salvia>

Phenethylamines

The most notable NPS finding in 2013 was an increase in the reported use of 2C-series drugs, with lifetime use of 2C-I significantly increasing from 3% in 2012 to 20% in 2013 (95%CI -0.26, -0.08). Controlling for age suggested that this increase was not due to the younger age of the 2013 sample. Recent use of 2C-I also significantly increased from 1% in 2012 to 17% in 2013 (95%CI -0.25, -0.08), and, again, this did not appear to be due to age. While reported use of other 2C-series drugs increased, these increases were not significant. There were no other significant increases for phenethylamine class drugs (Table 12).

Table 12: Patterns of phenethylamine class of new psychoactive substances (NPS), 2010-2013

	2010 N=100	2011 N=28	2012 N=90	2013 N=100
Phenethylamines (2C-x Class)				
2C-I				
ever used (%)	9	4	3	20*
used last 6 months (%)	1	0	1	17*
2C-B				
ever used (%)	5	14	8	15
used last 6 months (%)	2	7	3	8
2C-E				
ever used (%)	0	4	1	5
used last 6 months (%)	0	4	0	1
2C-Other				
ever used (%)	-	7	3	6
used last 6 months (%)	-	4	2	6
Phenethylamines (Amphetamine-based)				
6-(2-aminopropyl)benzofuran/6-APB/ Benzo Fury				
ever used (%)	-	-	2	1
used last 6 months (%)	-	-	1	0
Mescaline				
ever used (%)	7	14	6	6
used last 6 months (%)	4	4	1	0
5,6-Methylenedioxy-2- aminoindane/MDAI				
ever used (%)	-	-	1	0
used last 6 months (%)	-	-	0	0

Source: WA EDRS REU/RPU interviews, 2010-2013

*Indicates significant changes from the 2012 results according to 95%CI and p=0.05

Key expert comments

- A KE, who worked in drug analysis, reported that new synthetic drugs were the second most problematic class of drugs for them to manage currently. The KE reported that because unknown samples of these synthetic drugs come in for analysis, it makes the process of analysing them new and challenging. The KE added that because the properties/effects were largely unknown/unpredictable, using these drugs could be very dangerous. The KE reported recently receiving small, but regular samples of 2C-family drugs.
- Another KE, a peer worker, reported that new synthetic drugs, particularly 2C-I and NBOMe, are the number one most problematic class of drugs for young people currently. The KE reported that these drugs were cheap, long lasting, easy to access and easy to conceal. They added that use of these drugs had resulted in irrational and aggressive behaviour by young people they had encountered under the influence.
- Two KE, from drug treatment services, expressed concern over NBOMe being sold as LSD, as it may be unclear to people as to what they have actually consumed, which could then present complications for treatment.

Other classes

In 2013, a significant decrease was observed in lifetime use of BZP, with only 2% reporting use in the current sample, compared to 14% in 2012 (95%CI 0.05, 0.21). There were no significant changes for any of the ergoline, tryptamine or dissociative drugs included. A complete breakdown of these drug classes is presented in Table 13.

Table 13: Patterns of other classes of NPS, 2010-2013

NPS	2010 N=100	2011 N=28	2012 N=90	2013 N=100
<i>Synthetic cathinones</i>				
Mephedrone				
ever used (%)	19	18	16	6
used last 6 months (%)	16	14	3	3
Methylone				
ever used (%)	-	11	3	6
used last 6 months (%)	-	4	2	5
<i>Other stimulants</i>				
MDPV/ Ivory Wave				
ever used (%)	0	0	2	3
used last 6 months (%)	0	0	1	1
<i>Tryptamines</i>				
5MEO-DMT				
ever used (%)	4	4	0	0
used last 6 months (%)	1	0	0	0
DMT				
ever used (%)	13	40	32	33
used last 6 months (%)	8	25	22	22
<i>Dissociatives</i>				
DXM/ Cough syrup				
ever used (%)	7	21	11	7
used last 6 months (%)	3	4	2	5
Methoxetamine/ MXE				
ever used (%)	-	-	0	3
used last 6 months (%)	-	-	0	0
<i>Plant-based substances</i>				
Salvia divinorum				
ever used (%)	-	18	11	6
used last 6 months (%)	-	11	3	2
LSA/ Hawaiian Baby Woodrose				
ever used (%)	-	4	7	6
used last 6 months (%)	-	0	1	2
<i>Piperazines</i>				
BZP				
ever used (%)	37	7	14	2*
used last 6 months (%)	25	7	1	0

Source: WA EDRS REU/RPU interviews, 2010-2013

*Indicates significant changes from the 2012 results according to 95%CI and p=0.05

Key expert comments

- A KE, who worked in mental health, reported that three people had presented for 'bath salts' use and were exhibiting psychotic symptoms, paranoia and anxiety. They were reported to be in their early 20s and 30s. The KE reported that one person had also presented for issues related to DMT use.

Synthetic cannabis

In 2013, rates of reported synthetic cannabis use remained similar to that of 2012. Almost half of the current sample (45%) reported having ever used synthetic cannabis and one-fifth (20%) reported having used it recently. For the first time in 2013, participants were asked to report on their use of two specific brands, Kronic and K2/Spice. A breakdown of findings related to synthetic cannabis use is presented in Table 14.

Table 14: Patterns of synthetic cannabis use, 2010-2013

	2010 N=100	2011 N=28	2012 N=90	2013 N=100
Synthetic cannabis				
Any synthetic cannabis				
ever used (%)	-	32	44	45
used last 6 months (%)	-	32	18	20
Kronic				
ever used (%)	-	-	-	24
used last 6 months (%)	-	-	-	9
K2/Spice				
ever used (%)	-	-	-	3
used last 6 months (%)	-	-	-	1
Other synthetic cannabinoids				
ever used (%)	-	-	-	18
used last 6 months (%)	-	-	-	10

Source: WA EDRS REU/RPU interviews, 2010-2013

Key expert comments

- Two KE, from mental health and detox, reported synthetic cannabis to be the most problematic class of drugs at present, and two KE, from drug analysis and law enforcement, reported it to be the second most problematic.
- KE reported that use of synthetic cannabis was widespread; but most commonly seen in young people (<30 years old), particularly young males. A KE also added that its use was commonly seen in fly-in-fly-out (FIFO) workers in the mining industry, who were trying to avoid detection from current workplace drug testing.
- KE reported that synthetic cannabis was imported into WA (i.e., not produced locally); however, it was reported that the pure powder/active ingredient for synthetic cannabis may be imported from overseas, but then sprayed/added to plant material within Australia.
- KE reported that synthetic cannabis was easy to obtain, with a lot ordered online from websites and online marketplaces (e.g. Silk Road) and arriving direct in the mail. A KE reported that when synthetic cannabis is ordered online from webstores, the substance may still be legal or customers might still think it was legal because it was easily available for purchase.
- KE reported that a three gram packet of synthetic cannabis could cost between \$30 and \$60, but was generally around \$50.
- A KE, who worked in drug analysis, reported that because it was a class of new psychoactive substances, there were a lot of uncertainties around the pharmacology, the short and long term effects and the legality. The KE reported that there was a lot of misconception that these drugs are legal, and that they were, therefore, safe, when they might be neither legal nor safe. They reported that the toxicity of them was not known and that there were many different compounds sold as synthetic cannabis, therefore, consumers rarely knew what compound was in the product they were receiving. They added that there was a disparity in policy across Australia, which made legality of synthetic cannabis a grey area and very problematic. They reported that detecting these drugs in workplace drug testing was increasingly problematic and expensive as they were continuously trying to add new compounds to current workplace drug tests, as new synthetic products continued to appear on the market.
- Other problems KE reported in relation to synthetic cannabis use included significant disparity in effects between users and types, the development of anxiety, depression and psychotic symptoms in some users, and triggering of mental health conditions, such as schizophrenia, in some users.
- A KE, who worked in mental health, reported that synthetic cannabis had been causing psychotic symptoms as well as physical symptoms, such as tachycardia, in numerous cases. They added that there needed to be more professional education among health services/professionals for NPS, particularly synthetics cannabis, in response to increasing numbers of people presenting to services with issues related to NPS use.
- One KE, who worked in drug treatment, reported that issues related to synthetic cannabis could be resolved by decriminalisation of real cannabis.

Herbal highs

As presented in Table 15, the proportion who reported having ever used a herbal high significantly declined from approximately two-fifths (39%) in 2012 to one-tenth (12%) in 2013 (95%CI 0.15, 0.39); and controlling for age suggested that this decrease was not due to sample differences. The proportion reporting recent use of herbal highs did not significantly change. The proportion who reported having ever consumed a capsule where the contents were unknown also significantly declined, with 17% reporting use in 2012, compared to only 5% in the current sample (95%CI 0.03, 0.21).

Table 15: Patterns of herbal high use, 2010-2013

NPS	2010 N=100	2011 N=28	2012 N=90	2013 N=100
Herbal Highs				
ever used (%)	-	-	39	12*
used last 6 months (%)	-	-	11	5
Capsule (contents unknown)				
ever used (%)	-	-	17	5*
used last 6 months (%)	-	-	7	2

Source: WA EDRS REU/RPU interviews, 2010-2013

*Indicates significant changes from the 2012 results according to 95%CI and $p=0.05$

Key expert comments

- A KE, who worked in crowd control, reported that 'legal highs' were currently rampant at music festivals, and that people were presenting to first aid tents dehydrated and often feeling anxious and paranoid. The KE added that many young people who used 'legal highs' would also mix them with alcohol, leading to unpredictable effects which could be difficult to manage.

4.10.2. Summary of other drug use

- The entire sample (100%) reported lifetime use of alcohol and the majority also reported recent use (96%).
- KE reported that alcohol continued to be one of the most problematic drugs among REU/RPU.
- The majority of the sample (88%) reported lifetime tobacco use and three-quarters (75%) reported recent use.
- Consistent with low rates in previous years, lifetime use of MDA was reported by 18% and recent use was reported by 12%.
- Approximately three-quarters of the sample (77%) reported the use of pharmaceutical stimulants in their lifetime, significantly declining from 93% in 2012, and controlling for age suggested that this was not due to the younger age of the 2013 sample. Roughly two-thirds (64%) reported recent use. The vast majority of this use was illicit.
- More than half the sample (55%) reported lifetime use of a benzodiazepine and about one-third (33%) reported recent use.
- Lifetime use of any anti-depressant was reported by approximately one-third (31%) and recent use was reported by 18%. The majority of this use was licit.
- Lifetime use of amyl nitrate was reported by 14% and recent use was reported by 7%.
- Nitrous oxide appeared to be the more popular inhalant with almost half the sample (46%) reporting lifetime use and almost one-third (32%) reporting recent use.
- Consistent with previous years, the use of heroin was uncommon with 6% reporting lifetime use and only 2% reporting recent use.
- Lifetime use of 'other opiates' significantly declined from 46% in 2012 to 29% in the current sample; however, controlling for age suggested that this decrease was due to the younger age of the 2013 sample. Recent use was reported by 15%, which did not significantly decline from 20% in 2012. The majority of this use was illicit.
- The proportion reporting lifetime use of psilocybin/hallucinogenic mushrooms significantly decreased from 70% in 2012 to 44% in 2013; however, controlling for age suggested that this decrease was due to the younger age of the 2013 sample. Recent use declined, but not significantly, from 26% in 2012 to 17%.
- Consistent with 2012, the use of over-the-counter stimulant products remained low with only 7% reporting lifetime use and 5% reporting recent use.
- Steroid use also remained low with only one participant reporting lifetime and recent use.
- The most common new psychoactive substances (NPS) ever used were synthetic cannabis (45%), DMT (33%), 2C-I (20%) and 2C-B (15%).
- The most commonly reported NPS recently used were DMT (22%), synthetic cannabis (20%), 2C-I (17%) and 2C-B (8%).
- The most notable findings related to NPS in 2013 were increases in the reported use of 2C-family drugs, which did not appear to be due to the younger age of the 2013 sample.
- KE reported that the most common and problematic NPS encountered in this period were synthetic cannabis and 2C-family drugs.

5. DRUG MARKET: PRICE, POTENCY, AVAILABILITY AND SUPPLY

5.1. Ecstasy

5.1.1. Price

In 2013, 97 participants reported on the price of ecstasy pills in Perth, 30 participants reported on the price of ecstasy capsules, six reported on the price of powder per gram, seven reported on the price of powder per point and five reported on the price of crystal per gram. The median price per ecstasy tablet and perceived price changes across data collections in WA are presented in Table 16.

Ecstasy pills

Of those who commented on the price of ecstasy pills (n=97), the median price per pill was \$35 (range \$6-\$60). While the median price was consistent with recent years, the range is greater than normal. A possible explanation for this variation is that there were anecdotal reports of participants obtaining pills cheaply from online marketplaces, such as Silk Road. There were also reports of participants buying in bulk for reduced prices from interstate sources.

Participants were also asked to report on the price of ecstasy pills when purchasing in varying quantities. Bulk purchases tended to be cheaper, with 10 tablets costing a median of \$30 per tablet (n=61), 20 tablets costing a median of \$30 (n=34), 50 tablets costing a median of \$25 (n=26), and 100 tablets costing a median of \$22 (n=22). While the price of purchasing a single ecstasy pill has not changed from 2012, prices reported for purchasing more than one pill appeared to be a couple of dollars less than in 2012.

Ecstasy capsules

Of those who commented on the price of ecstasy capsules (n=30), the median price was \$37.50 (range 25-50), compared with \$35 in 2012. This indicates that the market price of capsules is slightly more than that of pills.

Ecstasy powder

Of those who were able to comment on the price of ecstasy powder per point (n=7), the median price was \$40 (range \$25-\$80). Of those who were able to comment on the price of powder per gram, the median price was \$250 (range \$8-\$400). Given the small sample size able to comment on the price of ecstasy powder, these findings should be interpreted with great caution.

Ecstasy crystals

Of those who were able to comment on the price of ecstasy crystals per gram (n=5), the median price was \$300 (range \$250-\$400). As with ecstasy powder, given the small sample size able to comment on the price of crystals, these findings should be interpreted with caution.

ACC statistics

Data obtained from the ACC indicates that, in WA during 2011/12, a single tablet or capsule of MDMA cost \$35. The price per tablet of purchasing 20-24 tablets, 25-99 tablets and 100-999 tablets was not available in this period. The price per tablet when purchasing over 1000 tablets or capsules was reported to cost \$17 (Australian Crime Commission, 2013).

Table 16: Price of ecstasy tablets purchased and price variations, 2003-2013

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Median price per tablet (range)	\$40 (\$25-\$50)	\$50 (\$25-\$60)	\$40 (\$30-\$50)	\$40 (\$25-\$50)	\$40 (\$30-\$50)	\$40 (\$20-\$45)	\$35 (\$17-\$50)	\$35 (\$20-\$50)	\$30 (\$15-\$40)	\$35 (\$20-\$50)	\$35 (\$6-\$60)
Price change:											
Increased (%)	10	4	5	6	11	17	9	18	4	10	16
Stable (%)	68	62	66	61	59	48	52	56	57	57	59
Decreased (%)	12	19	22	19	16	19	25	18	14	8	11
Fluctuated (%)	6	13	7	12	9	10	9	5	11	8	10
Don't know (%)	4	2	-	2	5	5	5	3	14	18	4

Source: WA EDRS REU/RPU interviews, 2003-2013

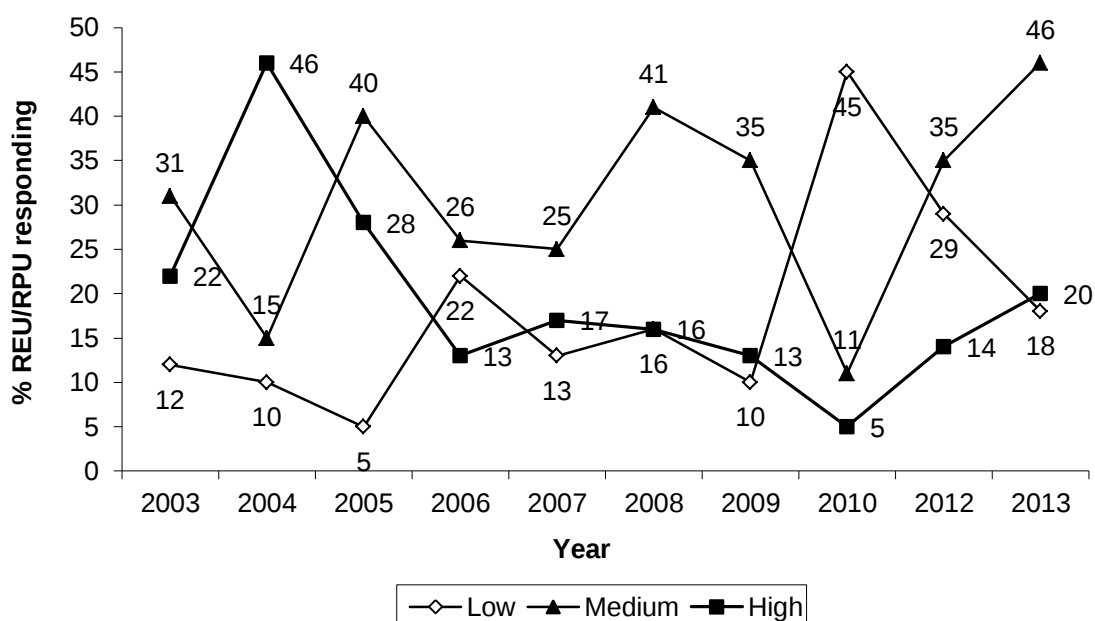
Key expert comments

- KE agreed that ecstasy pills were generally \$35 per pill, but can vary according to context of purchase (e.g. obtaining from a friend vs. obtaining from a stranger at a nightclub or music festival). One KE reported that MDMA capsules are generally more expensive at \$40.

5.1.2. Potency

In 2013, the greatest proportion of participants (46%) rated the current potency of ecstasy as 'medium', which is consistent with 2012 (35%). Following 'medium', ecstasy was rated as 'high' (20%), followed by 'low' (18%) and then 'fluctuates' (16%). Overall, as is evident in Figure 8, user reports of ecstasy potency appear to have been on an upward trend in 2012 and 2013. These findings add support to preliminary indications outlined in 2012 that both potency and availability may be recovering in WA.

Figure 8: User reports of current ecstasy potency, 2003-2013



Source: WA EDRS REU/RPU interviews, 2003-2013

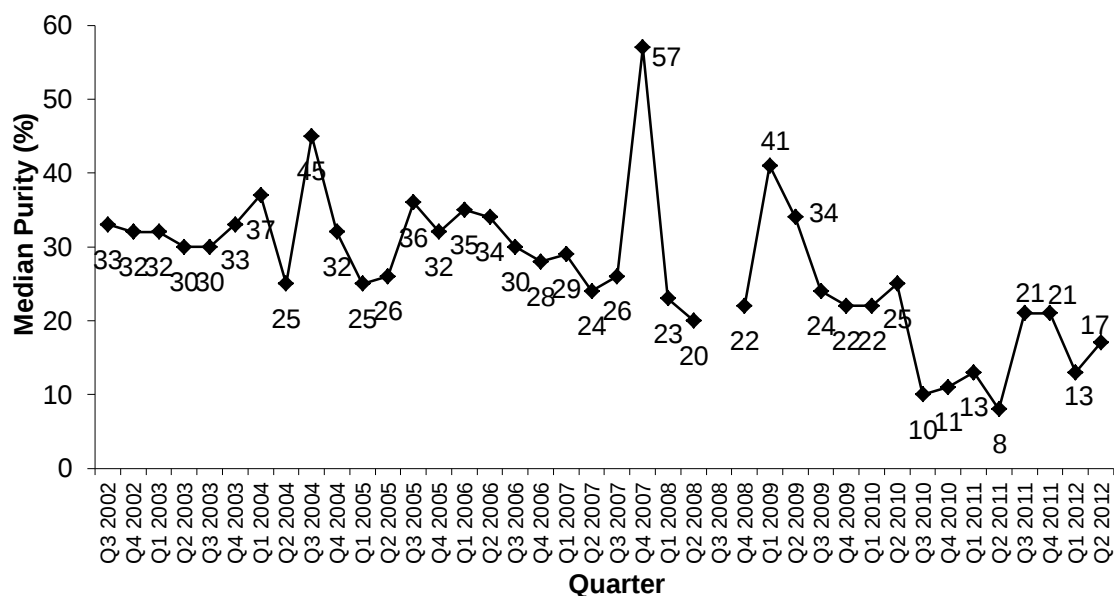
In addition to rating the potency of ecstasy, participants were asked about any perceived changes in the potency of ecstasy in the preceding six month period. Consistent with 2012, perceptions during this period were mixed. Approximately one-quarter reported that purity was 'fluctuating' (28%); this was followed by 'stable' (25%), 'decreasing' (20%), 'increasing' (19%) and then 'don't know' (8%).

ACC statistics

While potency estimates provided by users are subjective perceptions, 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 9 presents 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) (Australian Crime Commission, 2013).

Purity levels during the 2011/12 period ranged significantly between 2% and 83%. While there were reports for seizures of 2 grams and less and more than 2 grams, this data has not been consistently reported across years, therefore, the median for the total of all samples (≤ 2 gms and > 2 gms) is presented in Figure 9. As evident in Figure 9, this period represents a slight increase on the last reporting period which saw the lowest purity rates on record for WA. The total median purity for the 2011/2012 period was 17% (11% in 2010/11). These figures are consistent with user perceptions of increasing ecstasy potency in the 2012 EDRS reporting period. It will be interesting to see whether increasing perceptions of ecstasy potency during the current data collection period are reflected in higher purity of seized samples in the 2012/13 period.

Figure 9: Median purity of phenethylamines seizures in WA by quarter, July 2002 - June 2012



Source: ACC, 2003-2012

Key expert comments

- A KE, who analyses samples of seized ecstasy, reported that the purity of samples received had increased from approximately 18% in 2012 to 25-28% in 2013. The KE added that this could be due to resurgence in the precursor chemical needed for ecstasy manufacture. It was also reported that there had been an increase in the variety of pills that were coming in for analysis (i.e. different logos, colours, etc.). This KE's comment is consistent with participant comments outlined in Table 50.
- A KE, who worked in law enforcement, reported that they occasional came into contact with pill pressing equipment containing methamphetamine; however, the KE noted that the product was probably being sold on the market as ecstasy.
- A KE, who worked in nightclub security, reported that he believe that the purity and potency of ecstasy had been fluctuating. They noted that generally MDMA crystals were purer/more potent than other forms of ecstasy currently available in the Perth market. He also noted that ecstasy generally contained a mix of 'ice' to give the pills some "edge".

5.1.3. Availability

Participants were asked how easy ecstasy was to obtain in the preceding six month period. The vast majority of the current sample (96%) rated the current availability of ecstasy as 'easy' or 'very easy', compared to 83% in 2012. The proportion perceiving availability as 'very easy' was the highest seen since 2009 and may suggest that perception of ecstasy availability was increasing. While the majority (51%) also perceived availability to be 'stable', approximately one-third (33%) perceived availability to be 'easier' over the preceding six months. This was consistent with 2012 findings and adds further support to preliminary indications outlined in 2012 that both potency and availability may be recovering in WA. Availability reports across survey years are presented in Table 17.

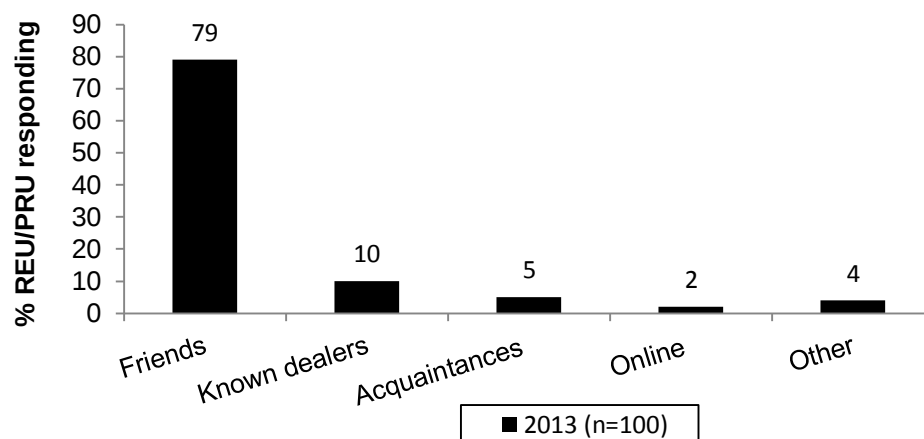
Table 17: Reports of ecstasy availability, 2003-2013

	2005 N=100	2006 N=100	2007 N=99	2008 N=58	2009 N=98	2010 N=100	2011 N=28	2012 N=90	2013 N=100
Current availability									
Very easy (%)	62	47	30	52	61	22	14	18	48
Easy (%)	35	42	59	41	35	58	50	65	48
Availability									
Stable (%)	72	55	65	59	62	54	64	44	51
Easier (%)	16	17	10	24	20	7	4	32	33

Source: WA EDRS REU/RPU interviews, 2003-2013

As demonstrated in Figure 10, consistent with previous years, 'friends' was the most commonly reported person from whom ecstasy was last obtained, nominated by three-quarters of the current sample (79%). This was followed by 'known dealers' (10%) and then 'acquaintances' (5%). Individual participants reported obtaining ecstasy from people other than those outlined in Figure 10, one reported obtaining ecstasy from "a random at a festival" and another reported obtaining from "a random at a nightclub".

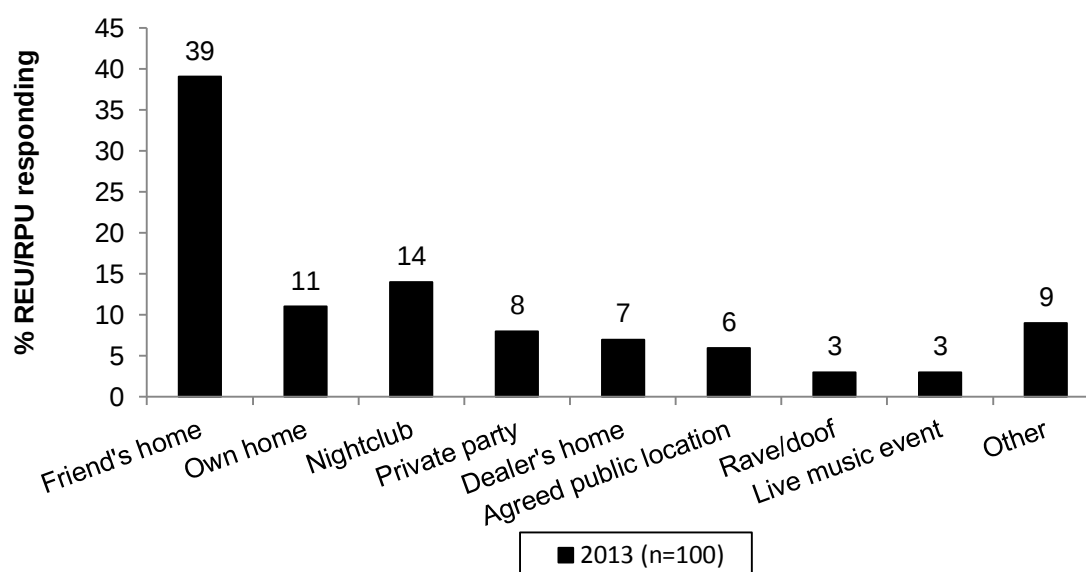
Figure 10: People from whom ecstasy was last obtained, WA 2013



Source: WA REU/RPU interviews, 2013

As presented in Figure 11, consistent with Figure 10, 'friend's home' was the most commonly reported location from which ecstasy was last obtained (39%), followed by 'nightclub' (14%) and then 'own home' (11%). The remaining participants reported obtaining from 'private parties', 'dealer's home', 'agreed public location', 'live music event' or 'rave/doof'.

Figure 11: Locations at which ecstasy was last purchased, WA 2013



Source: WA REU/RPU interviews, 2013

As presented in Table 18, the median number of people ecstasy was purchased from in the preceding six month period was four, compared to two in 2012. A median of four ecstasy pills were purchased at a time. Consistent with previous years, the majority reported that last time they purchased ecstasy it was purchased for 'self and others' (66%). In the six month period, the most typical amount of ecstasy purchased was one to six, reported by almost half of the sample (48%). Only 2% reported making over 25 ecstasy purchases in the preceding 6 months.

Table 18: Patterns of purchasing ecstasy, 2005-2013

	2005 N=100	2006 N=100	2007 n=98	2008 N=58	2009 N=100	2010 N=100	2011 N=28	2012 N=90	2013 N=100
Median no. of people purchased from	4 (0-20)	3 (0-30)	3 (0-20)	4 (1-15)	3 (1-55)	3 (1-20)	3 (1-10)	2 (0-20)	4 (1-20)
Median no. of ecstasy tablets purchased	4 (1-100)	5 (1-100)	6 (1-100)	6 (1-100)	5 (1-100)	5 (1-100)	4 (1-100)	3 (1-150)	4 (1-200)
Purchased for (%)									
Self only	26	22	25	22	22	30	46	43	33
Self and others	71	77	70	78	75	69	50	54	66
Others only	1	-	-	-	3	1	-	-	1
Didn't buy ecstasy	-	1	5	-	-	-	4	2	-
No. of times purchased in the last 6 months (%)									
1-6	35	37	53	60	31	61	48	77	48
7-12	42	32	25	35	46	31	26	8	32
13-24	17	28	16	5	21	8	22	11	17
25 +	3	1	1	-	2	-	-	2	2
None	-	-	5	-	-	-	4	2	1

Source: WA EDRS REU/RPU interviews, 2005-2013

Key expert comments

- A KE, who worked in nightclub security, reported that various forms of ecstasy were currently available, but that it was mainly pills or MDMA crystals (packaged in capsules) that dominated the Perth market currently.

5.1.4. Summary of ecstasy trends

- The median price of ecstasy was \$35 per pill.
- More than half the sample (59%) rated ecstasy prices as 'stable' in the preceding six months.
- The potency of ecstasy was most commonly rated as 'medium' (49%), followed by 'high' (20%).
- User perceptions of ecstasy potency suggested that potency may be increasing.
- Consistent with user perceptions, police analyses of phentylamine seizures during 2011/12 suggested a slight increase in the purity of ecstasy.
- Availability of ecstasy was rated as 'easy' or 'very easy' by the majority (98%).
- The majority reported that availability was 'stable' (51%); however, approximately one-third (33%) reported that ecstasy was 'easier' to obtain.
- Consistent with 2012 findings, user perceptions of availability and potency suggested that ecstasy potency and availability may be recovering, following suspected declines in 2011.
- 'Friends' remained the most commonly reported person from whom ecstasy was last obtained (79%).
- Ecstasy was purchased from a median of four people in the last six months, and a median of four tablets were obtained at a time. Ecstasy was most commonly purchased for 'self and others' (66%).
- The most typical number of occasions ecstasy was purchased in the six month period was one to six times (48%).
- 'Friend's home' was the most commonly reported location from where ecstasy was last obtained (39%).

5.2. Methamphetamine

5.2.1. Price

Participants were asked about the price of the various forms of methamphetamine on the last occasion of purchase (Table 19).

Speed

In 2013, only one participant reported on the price of methamphetamine powder or 'speed' per gram and the reported price was \$700, compared to a median price of \$400 in 2012. Of those able to comment on the price of speed powder per point (n=6), the median price was \$100 (range \$50-\$100). This price is consistent with 2012 findings and represents the third year running that the price per point had doubled from \$50 in 2010. While these results should be interpreted with caution due to the small number of participants reporting, this increase in price per point has also been represented by larger numbers of respondents interviewed in the in the 2012/2013 WA IDRS survey of injecting drug users.

Base

As in 2012, no participants from the current EDRS sample were able to report on the price of methamphetamine base per gram or per point.

Crystal

Of those who were able to comment on the price of crystal methamphetamine per gram (n=7), the median price was \$700 (range \$700-\$900), compared to \$525 in 2012. Of those who were able to comment on the price of crystal per point (n=15), the median price was \$100 (range \$50-\$100), consistent with recent years. As with speed, this price marked a 100% increase on previous years where a point cost \$50. This trend is evident in Table 19.

Table 19: Price of various methamphetamine forms purchased, 2003-2013

Median price (\$)	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Speed											
Point	50	50	50	50	50	50	50^	50^	100^	100^	100^
Gram	200	300	300	300	350	100	275	300^	800^	400^	700^
Base											
Point	50	50	50	50	50	50	50^	-	100^	-	-
Gram	-	300	325	350	380	-	400^	300^	1000^	-	-
Crystal											
Point	50	50	50	50	50	50	50^	50^	100	100	100
Gram	-	400	350	400	400	425	400^	400^	400^	525^	800^

Source: WA EDRS REU/RPU interviews, 2003-2013

^ Price reported by < 10 participants

Key expert comments

- A KE, who worked in a nightclub setting, reported that methamphetamine cost \$100 per point and \$750-\$800 per gram.

In addition to reporting on prices paid for methamphetamine, participants were also asked to comment on perceived price changes in the preceding six month period (see Figure 12).

Speed

Of those able to comment on the price of speed (n=7), the majority (n=6) reported that price was 'stable' and the remainder (n=1) reported that it was 'increasing'. No participants reported that the price was 'declining' or 'fluctuating', providing further support for the price increase to \$100 per point in recent years.

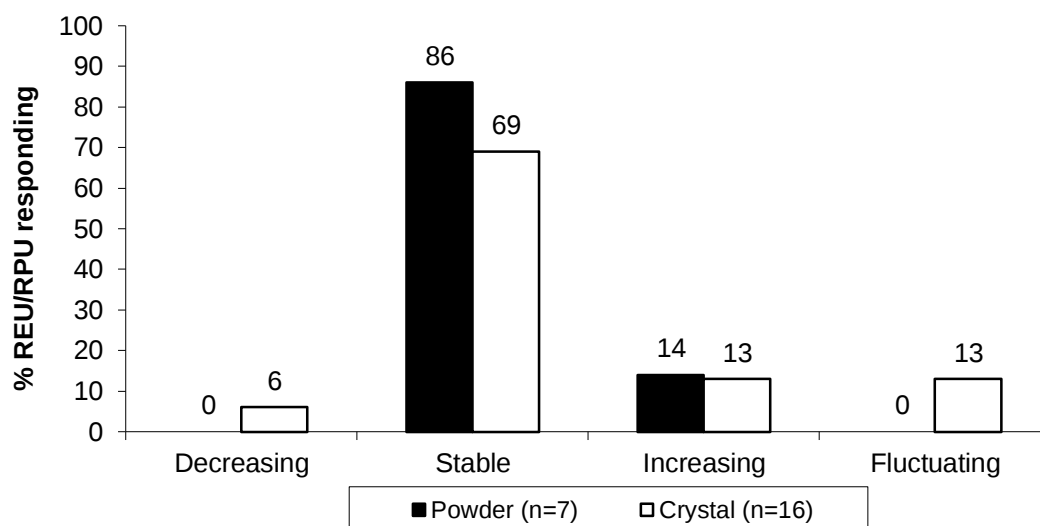
Base

In 2013, no participants were able to comment on recent price changes for methamphetamine base.

Crystal

Of those able to comment on the price of crystal (n=16), the majority (69%, n=11) perceived the price as 'stable' in the six month period. Remaining perceptions were mixed with some participants reporting 'increasing' or 'fluctuating' (each 13%, n=2) and then 'decreasing' (6%, n=1).

Figure 12: Recent changes in the price of powder and crystal forms of methamphetamine, 2013



Source: WA EDRS REU/RPU interviews, 2013

ACC statistics

Data obtained from the ACC indicates that, in WA during 2011/12, a point (0.1 gram) of crystal methamphetamine ('ice') cost between \$100 and \$200; the price per weight of crystal (1 gram) cost between \$700 and \$800; the price per 8-ball (3.5 grams or 1/8 ounce) cost between \$1900 and \$2,700; the price per ounce (street deal) cost between \$16,000 and \$17,000. All other quantities of crystal were unavailable during this reporting period (Australian Crime Commission, 2013).

5.2.2. Potency

Participants were asked to comment on the perceived potency of methamphetamine over the preceding six month period (Figure 13).

Speed

Of those able to comment on the potency of speed (n=7), the majority rated it as 'medium' (71%), followed by 'low' and 'high' (each 14%). In 2012, potency of speed was rated as 'medium' by half of those responding (50%), followed by 'high' (25%). The very small number of participants here and in 2012 (n=12) precludes drawing any meaningful comparisons or conclusions from these data.

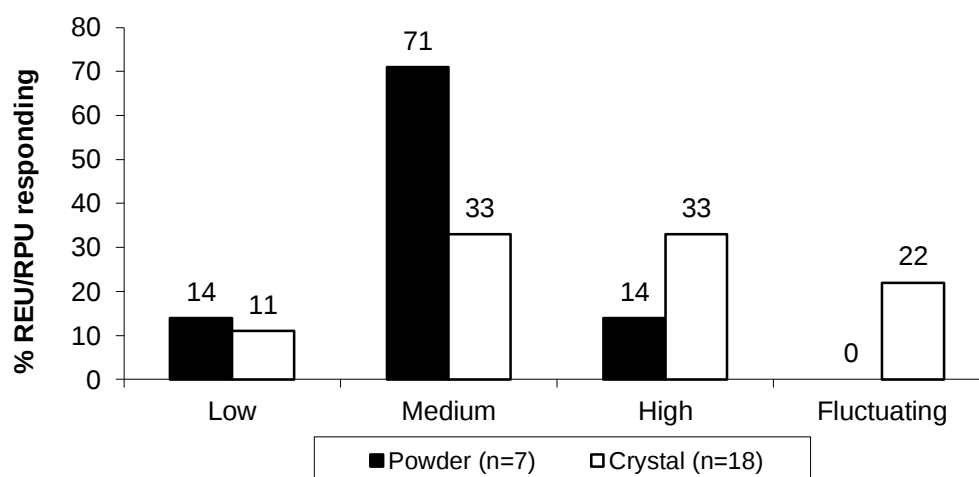
Base

In 2012, no participants were able to comment on the current potency of methamphetamine base.

Crystal

Of those who were able to comment on the potency of crystal methamphetamine (n=18), perceptions were mixed. The greatest proportions rated crystal as 'medium' or 'high' (each 33%), this was followed by 'fluctuating' (22%) and then 'low' (11%). In 2012, the majority of participants (68%) who commented on crystal rated the current potency as 'high', compared to 40% in 2010, and 15% in 2009. These findings indicate that in recent years there have been increasing perceptions of crystal potency, however, findings from the current sample suggest this increasing trend may have ended. Overall, user perceptions of crystal methamphetamine in 2013 suggest potency is generally perceived as 'medium' to 'high', but that potency can be variable.

Figure 13: User reports of current methamphetamine potency, 2013



Source: WA EDRS REU/RPU interviews, 2013

Participants were asked to comment on perceived changes in the potency of methamphetamine over the preceding six month period. A complete breakdown of these findings is presented in Figure 14.

Speed

Of those able to comment on recent changes in speed potency (n=7), perceptions were mixed. The greatest proportion (43%), reported that potency was 'decreasing', followed by 'stable' (29%), 'increasing' (14%) and then 'fluctuating' (14%). These findings are in contrast to 2012 findings where the greatest proportion reported potency as 'stable' and no participants reported potency to be 'decreasing'. Again, given small numbers able to comment on this form of methamphetamine, caution should be taken when interpreting these findings.

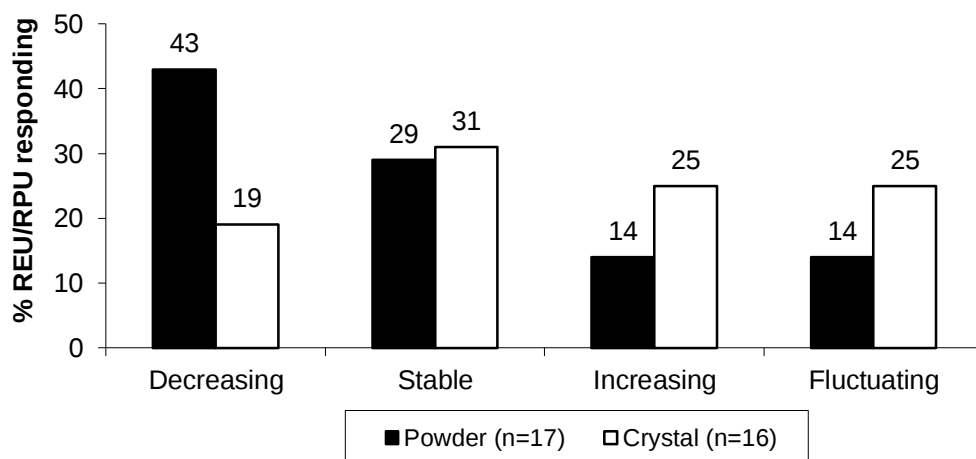
Base

Once again, data on trends in potency of base cannot be reported as no participants commented on this form of methamphetamine.

Crystal

Of those able to comment on recent changes to crystal potency (n=16), perceptions were again mixed. The greatest proportion (31%), reported that potency was 'stable', followed by 'increasing' and 'fluctuating' (each 25%) and then 'decreasing' (19%). As with speed, in 2012 the greatest proportion (53%) reported that potency had remained 'stable', and no participants reported that potency was 'decreasing'. Overall, these findings suggest that perceptions of powder and crystal methamphetamine potency may be more unstable than in recent years.

Figure 14: User reports of changes in methamphetamine potency in the past six months, 2013



Source: WA EDRS REU/RPU interviews, 2013

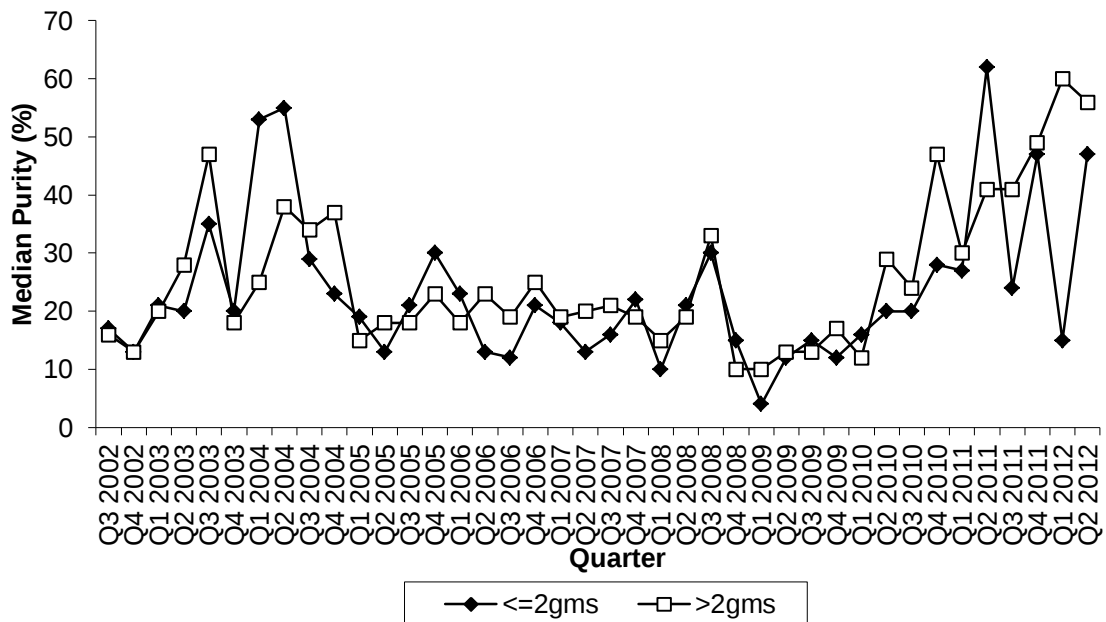
Key expert comments

- A KE, who worked in drug analysis, reported that the purity of methamphetamine samples had been stable during this period and that the samples being analysed [currently] in WA were generally at 30-40%.

ACC statistics

Figure 15 presents data provided by the ACC regarding the median purity of methylamphetamine in WA during 2011/12. As evident in Figure 15, in this period the purity of seized samples that were two grams or less has varied greatly (24-47%); however, the fourth quarter of 2011 and the first quarter of 2012 recorded some of the highest rates on record. It is also clear from Figure 15 that the purity for samples seized over two grams has been on a steady increase since 2010, with 2012 figures marking the highest purity rates on record since data collection commenced in 2002. During this period the total median purity for seizures of two grams or less was 33% (25% in 2010/2011) and seizures in excess of two grams was 54% (34% in 2010/2011) (Australian Crime Commission, 2013). This purity data is consistent with user perceptions of an increase in methamphetamine potency recorded in the 2012 EDRS data collection period.

Figure 15: Median purity of methylamphetamine seizures analysed in WA by quarter, July 2002 to June 2012



Source: ACC, 2003-2012

5.2.3. Availability

Participants were asked to comment on the perceived availability of methamphetamine forms in the preceding six month period. A breakdown of responses concerning current availability of methamphetamine is presented in Figure 16.

Speed

Of those who were able to comment on the availability of speed (n=7), all reported that it was either 'easy' (43%) or 'very easy' (57%) to obtain. No participants reported that availability was difficult in 2013. In 2012, the majority (92%) also reported that speed was either 'easy' or 'very easy' to obtain'.

Base

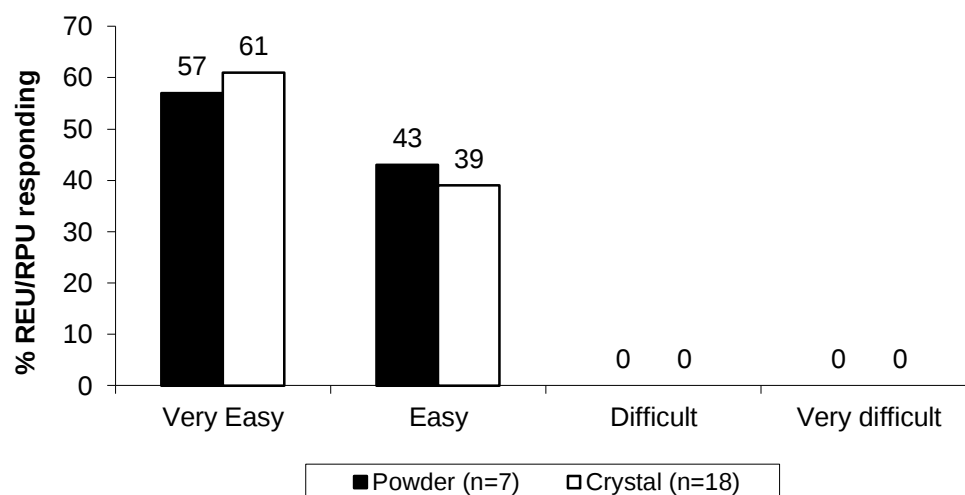
No participants commented on current availability of methamphetamine base.

Crystal

Similar to speed, of those who were able to comment on the availability of crystal (n=18), all reported that it was either 'easy' (39%) or 'very easy' (61%) to obtain. This is comparable to 2012 findings, where 95% also rated crystal availability as either 'easy' or 'very easy'.

Overall, as evident in Figure 16, there were no participants who reported availability of speed or crystal methamphetamine as being 'difficult' or 'very difficult' to obtain in 2013. Therefore, while perceptions of potency may be more variable than in recent years, findings regarding perceived availability appear to be consistent, if not suggesting a slight increase in availability.

Figure 16: User reports of current availability of methamphetamine forms, 2013



Source: WA EDRS REU/RPU interviews, 2013

Key expert comments

- A KE, who worked in a nightclub setting, reported that “recreational dealing” of drugs such as methamphetamine seems to have increased, stating that “everyone is a drug dealer these days”. Another KE, also from a nightclub setting, reported that “meth is often easier to get than weed”.
- A KE, who worked in drug analysis, reported that based on the number of seized samples presenting for analysis, it seemed that availability of methamphetamine remained high and stable.

Participants were also asked to comment on the perceived changes to availability of methamphetamine forms in the preceding six months. A breakdown of responses concerning changes to availability is presented in Figure 17.

Speed

Consistent with recent years, of those commenting on speed availability (n=7), the majority of those commenting (71%, n=5) reported that availability of speed had remained ‘stable’; remaining perceptions were mixed, with equal proportions reporting that speed had become ‘easier’ and ‘more difficult’ to obtain (each 14%, n=1).

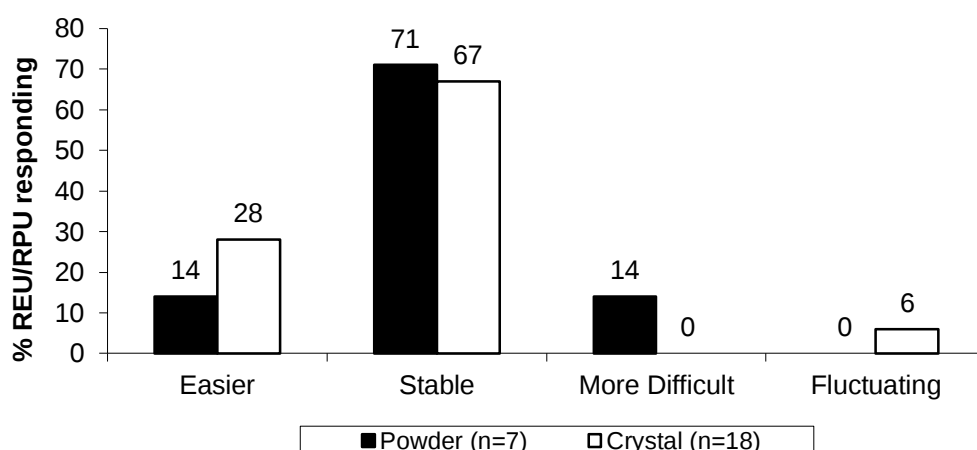
Crystal

Similar to speed, of those commenting on crystal availability (n=18), the majority (67%) reported that they perceived availability to be ‘stable’. Again, remaining perceptions were mixed, with 28% reporting that crystal was ‘easier to obtain and 6% reporting that it was ‘fluctuating’. Consistent with 2012, no participants reported that crystal was ‘more difficult’ to obtain.

Base

Once again, data on availability of base cannot be reported as no participants commented on this form of methamphetamine.

Figure 17: Change in the availability of methamphetamine in the preceding six months, 2013

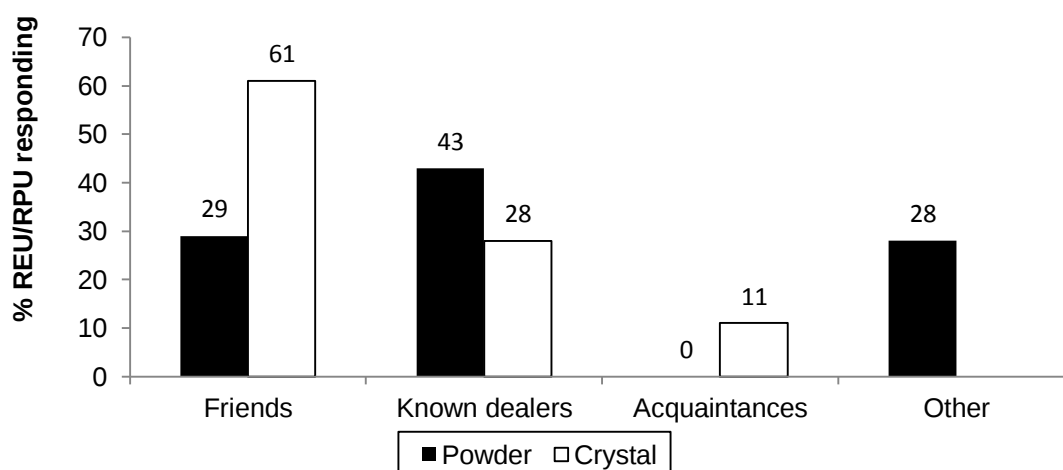


Source: WA EDRS REU/RPU interviews, 2013

Source person and source location

Consistent with previous years, 'friends' and 'known dealers' were the most commonly reported person from whom methamphetamine was last obtained. For powder, almost half (43%) reported obtaining from a 'known dealer', followed by 'friends' (29%). For crystal, the majority (61%) reported obtaining from 'friends' and this was followed by 'known dealers' (28%).

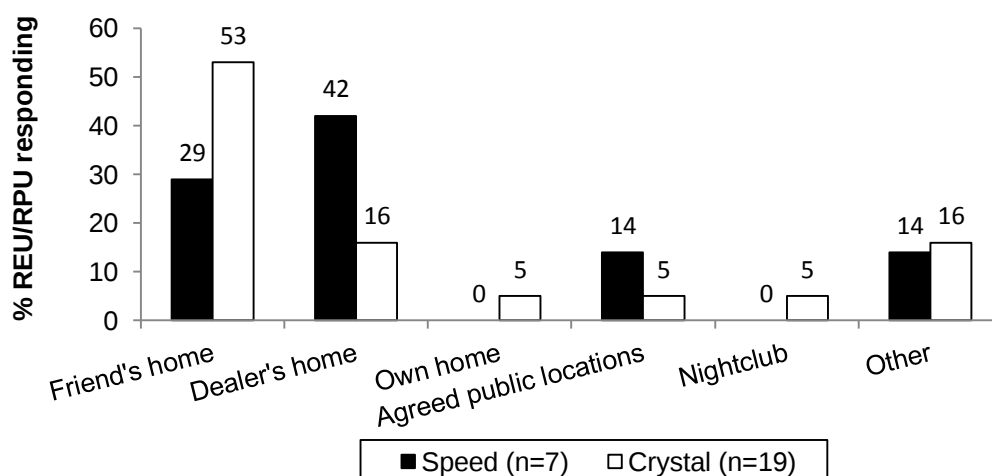
Figure 18: Person from whom methamphetamine was last obtained in the preceding six months, 2013



Source: WA EDRS REU/RPU interviews, 2013

Locations for purchasing methamphetamine were largely consistent with sources of purchase reported above. For those commenting on speed (n=7), 'dealer's home' was the most commonly reported location (42%, n=3); this was followed by 'friend's home' (29%, n=2) and 'agreed public location' and 'street market' (each 14%, n=1). For those commenting on crystal (n=19), 'friend's home' was the most commonly reported location (53%, n=10) and this was followed by 'dealer's home' (16%, n=3). A breakdown of locations where methamphetamine was purchased is presented in Figure 19.

Figure 19: Last locations where methamphetamine was purchased in the preceding six months, 2013



Source: WA EDRS REU/RPU interviews, 2013

ACC statistics

The most recent Illicit Drug Data Report (IDDR) (ACC, 2013) reported on seizures of amphetamine-type stimulants (ATS) in the period 2011/12. ATS incorporate MDMA, amphetamine and methamphetamine. In WA, state police and Australian Federal Police were responsible for 3,401 seizures totalling 29,578 grams, compared with 1,993 seizures totalling 23,639 grams in the 2010/11 period.

5.2.4. Summary of methamphetamine trends

Speed

- The median price per point was \$100 and the median price per gram was \$700.
- The majority reported that the price of speed was 'stable' (86%).
- Comparable with 2010, speed potency was most commonly rated as 'medium' (71%).
- Potency was most commonly perceived as 'decreasing' (43%).
- All commenting rated availability as either 'very easy' or 'easy'.
- Availability was most commonly perceived as 'stable' (67%).

Base

- There were no participants who commented on the price, potency or availability of base methamphetamine.

Crystal

- The median price per point was \$100 and the median price per gram was \$800.
 - The majority reported that the price of crystal was 'stable' (69%).
 - Crystal potency was most commonly rated as 'high' or 'medium' (each 33%).
 - All commenting rated availability as either 'very easy' or 'easy'.
 - The majority perceived availability as 'stable' (71%).
-
- User perceptions indicated that methamphetamine potency may be more variable than in recent years, where it was generally perceived as 'high'.
 - User perceptions indicated that availability was relatively consistent with recent years.
 - While 'known dealer's' were the most commonly reported person from whom speed was last obtained, 'friends' were the most commonly reported person for crystal. Accordingly, 'dealer's home' and 'friend's home' were the most commonly reported locations of last purchase.
 - KE reported that methamphetamine purity and availability remained high.

5.3. Cocaine

5.3.1. Price

Consistent with previous years, in 2013, only a small sub-sample of participants (n=10) commented on the price of cocaine in the preceding six month period. Therefore, findings for cocaine should be interpreted with caution. As presented in Table 20, the median cost for a gram of cocaine was \$400, compared with \$325 in 2012.

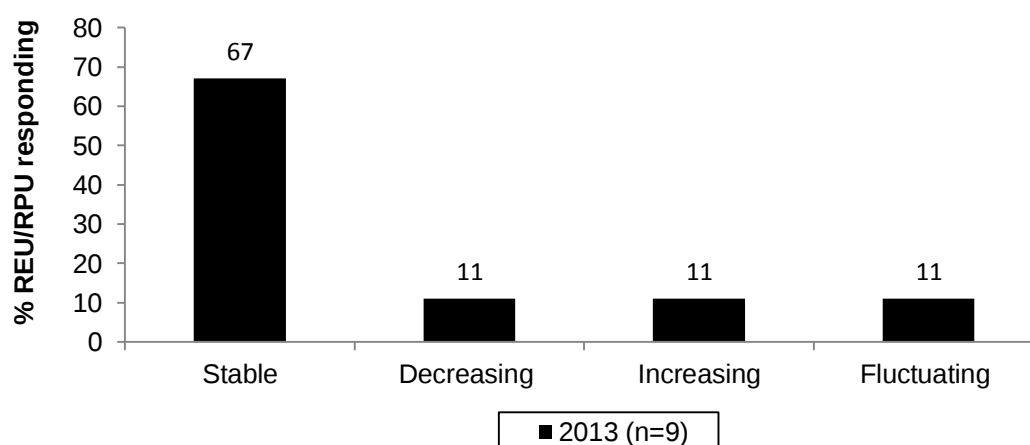
Table 20: Price of cocaine purchased, 2003-2013

	2003 (n=6)	2004 (n=7)	2005 (n=14)	2006 (n=14)	2007 (n=8)	2008 (n=8)	2009 (n=9)	2010 (n=4)	2011 (n=5)	2012 (n=10)	2013 (n=10)
Median price per gram	\$325	\$300	\$350	\$350	\$390	\$325	\$375	\$365	\$375	\$325	\$400
Price range	(\$250-\$400)	(\$250-\$400)	(\$300-\$450)	(\$210-\$600)	(\$200-\$500)	(\$300-\$400)	(\$200-\$300)	(\$300-\$500)	(\$350-\$500)	(\$100-\$700)	(\$300-\$500)

Source: WA EDRS REU/RPU interviews, 2003-2013

As evident in Figure 20, of those commenting (n=9), the majority (67%, n=6) reported that the price of cocaine was 'stable'. The remaining perceptions were mixed with equal proportions reporting 'decreasing', 'increasing' and 'fluctuating' (each 11%, n=1). These findings are consistent with 2012; however, again it must be emphasised that given the extremely small sample size, great caution needs to be taken in drawing conclusions from these data.

Figure 20: User reports of recent changes in the price of cocaine, 2013



Source: WA EDRS REU/RPU interviews, 2013

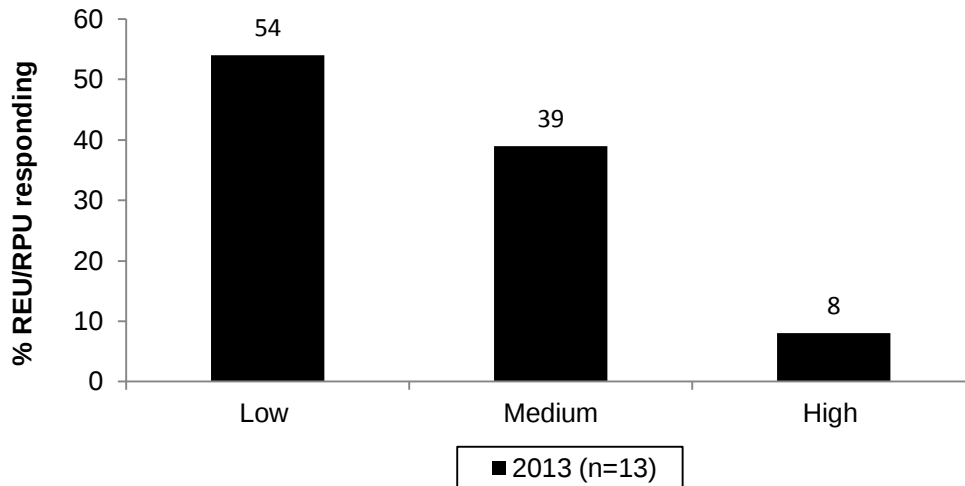
ACC statistics

Data obtained from the ACC indicates that, in WA during 2011/2012, the price per ounce (28 grams) of cocaine cost \$11,000 (\$7,000 - \$16,000 in 2010/11). The price of cocaine in other quantities was not available for this reporting period. Cocaine prices for the 2009/2010 period ranged from \$380-\$400 per gram, \$6,500-\$20,000 per ounce and \$100,000-\$150,000 per pound (Australian Crime Commission, 2011, 2012, 2013).

5.3.2. Potency

In 2013, 13 participants commented on the potency of cocaine. Of these, the greatest proportion rated cocaine as 'low' (54%, n=7); this was followed 'medium' (39%, n=5), and then 'high' (8%, n=1). This data is displayed in Figure 21. This compares to 34% reporting potency of cocaine as 'medium' in 2012, followed by 'low' (27%).

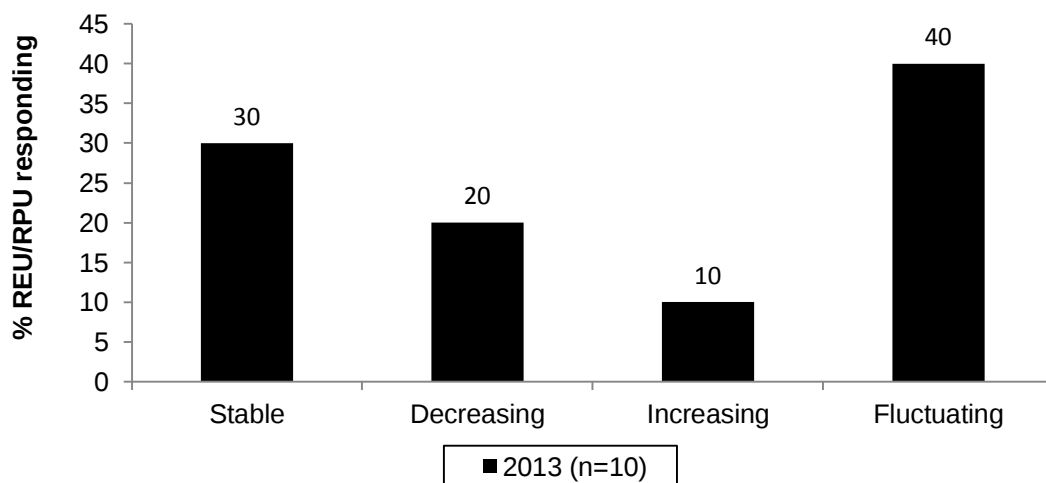
Figure 21: User reports of current potency of cocaine, 2013



Source: WA EDRS REU/RPU interviews, 2013

Of the 13 participants who commented on cocaine potency, 10 were able to comment on perceived changes to potency in the preceding six month period. As presented in Figure 22, perceptions were mixed which is evident with the greatest proportion reporting that potency had been 'fluctuating' (40%, n=4); this was followed by 'stable' (30%, n=3), 'decreasing' (20%, n=2) and then 'increasing' (10%, n=1). Again, the very small number of participants here precludes drawing any conclusions based on these data.

Figure 22: User reports of changes in cocaine potency in the preceding six months, 2013

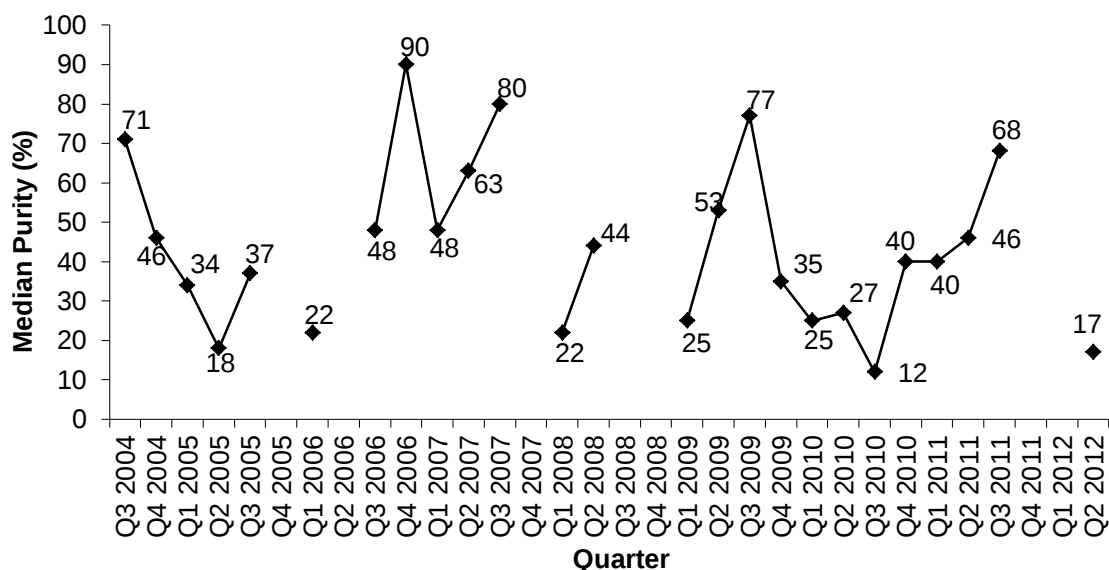


Source: WA EDRS REU/RPU interviews, 2013

ACC statistics

Figure 23 presents ACC data for the median purity of cocaine seizures in WA per quarter. It is difficult to interpret meaningful findings from these data due to the number of seizures historically being extremely low, or unreported, in WA. From the latest ACC data, it would appear that the potency of cocaine seizures analysed in WA continued to fluctuate, ranging from 17% to 68% in the 2011/12 period (Australian Crime Commission, 2013).

Figure 23: Median purity of cocaine seizures analysed in WA by quarter, July 2004 - June 2012



Source: ACC, 2005-2013

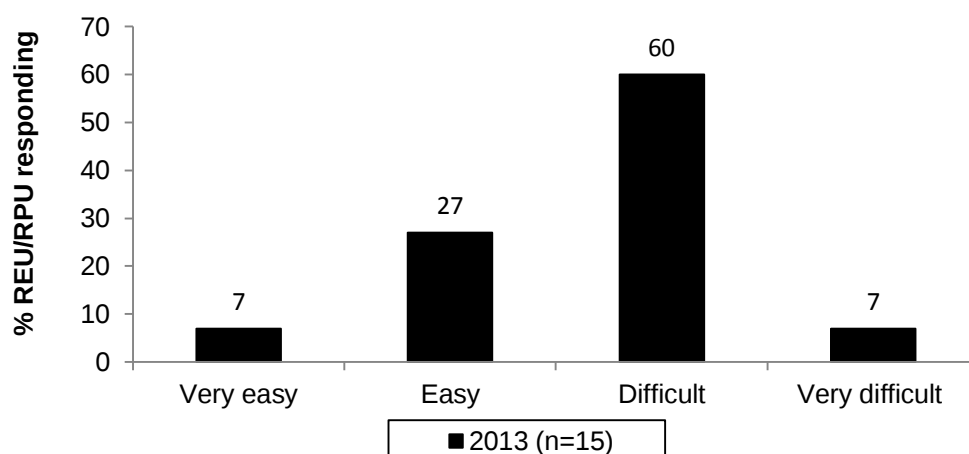
Key expert comments

- A KE, who worked in drug analysis, reported that the potency of cocaine being analysed in WA [currently] was around 35%, which he reported was similar to the previous period; however, the KE also reported that there was not a lot of data for cocaine and, therefore, results need to be interpreted with caution.

5.3.3. Availability

There were 15 participants who commented on perceived availability of cocaine in Perth. As presented Figure 24, the majority reported that cocaine was 'difficult' (60%, n=9) to obtain in the preceding six month period. This is consistent with 2012, where 48% rated availability as 'difficult'. Again, the small number of participants for both 2013 and 2012 (n=11) precludes drawing any meaningful conclusions based on these data.

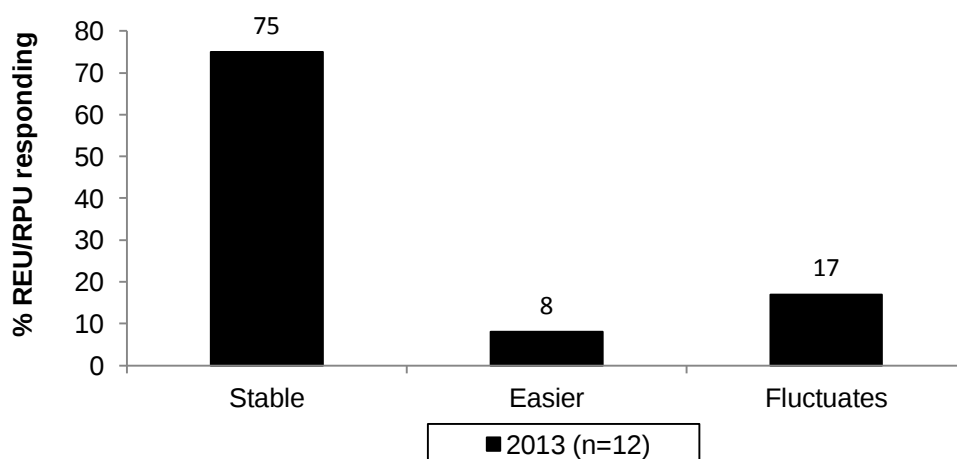
Figure 24: Current availability of cocaine, 2013



Source: WA EDRS REU/RPU interviews, 2013

There were 12 participants who commented on perceived changes in the availability of cocaine over the preceding six month period. As presented in Figure 25, the majority (75%, n=9) reported that availability was 'stable'. The remaining participants reported that cocaine availability was 'fluctuating' (17%, n=2) or 'easier' to obtain (8%, n=1). Again, the very small number of participants here precludes drawing any conclusions based on these data.

Figure 25: Changes in cocaine availability in the preceding six months, 2013



Source: WA EDRS REU/RPU interviews, 2013

Key expert comments

- A KE, who worked in drug analysis, reported that they did not receive a lot of cocaine samples and speculated that this was probably due to the route of cocaine supply. The KE reported that imports departed from South America and generally went to the Eastern states. The KE further speculated that the demand is sufficient in the Eastern states to meet the supply; hence imports rarely made their way into the WA market.

Source person and source location

Of those who commented on obtaining cocaine over the preceding six months (n=15), the majority reported obtaining from 'friends' (40%, n=6), followed by 'acquaintances' (33%, n=5), and then a 'known dealer', 'unknown dealer' or 'relative' (each 7%, n=1). Consistent with this, the most commonly reported location of last purchase was at a 'friend's home' (47%, n=7); this was followed by a 'private party', 'acquaintance's house', 'own home' or 'live music venue' (each 13%, n=2).

5.3.4. Summary of cocaine trends

The number of EDRS participants who had recently used cocaine and felt confident in their knowledge of the cocaine market in Perth was very small. As such, we recommend extreme caution in interpreting the data presented here.

- The median price per gram of cocaine was \$400.
- That majority reported that the price of cocaine was 'stable' (67%).
- Perceptions of the potency of cocaine were mixed; however, the greatest proportion rated potency as 'low' (54%).
- The greatest proportion perceived cocaine potency as 'fluctuating' (40%).
- Analysis of cocaine seizures in WA revealed that cocaine potency in the 2011/2012 period was between 17% and 68%. This continues a fluctuating trend. Consistent with previous periods, the number of seizures in WA was low.
- The majority (60%) reported that cocaine was 'difficult' to obtain and that availability was 'stable' in the six month period.
- 'Friends' were most commonly reported as the last person from whom cocaine was obtained (40%). Accordingly, 'friend's home' was the most commonly reported location of last purchase.

5.4. Ketamine

In 2013, only two participants were able to comment on the price, potency and availability of cocaine. Given the extremely small sample size and inconsistency in responses, findings for ketamine may be unreliable and have, therefore, been excluded from analysis.

5.5. GHB

No participants were able to comment on the price or potency of GHB in 2013. One participant commented on the availability, reporting that GHB was obtained online and that it was 'very easy' to obtain via this source.

5.6. LSD

5.6.1. Price

As presented in Table 21, in 2013 the median price per tab of LSD in Perth was \$25. This represents a \$5 increase on 2012, but is consistent with previous data collection years. Of those who commented on recent changes in the price of LSD (n=37), the majority (60%, n=22) reported that the price was 'stable' over the preceding six months. Of the remainder, perceptions were mixed, with 16% (n=6) reporting price to be 'decreasing', 14% (n=5) reporting 'fluctuating' and 11% (n=4) reporting 'increasing'.

Table 21: Price of LSD purchased, 2003-2013

LSD	2003 (n=28)	2004 (n=12)	2005 (n=35)	2006 (n=20)	2007 (n=16)	2008 (n=9)	2009 (n=25)	2010 (n=32)	2011 (n=12)	2012 (n=19)	2013 (n=39)
Median price (\$)	20	25	25	20	25	25	25	25	25	20	25
tab (range)	(15-40)	(7-40)	(15-40)	(10-50)	(10-30)	(20-45)	(5-40)	(10-40)	(15-50)	(10-50)	(1-35)
Price change:	(n=30)	(n=17)	(n=29)	(n=13)	(n=10)	(n=7)	(n=19)	(n=27)	(n=11)	(n=19)	(n=37)
Increased (%)	30	41	38	15	0	29	21	11	9	0	11
Stable (%)	53	29	34	69	90	57	74	78	64	68	60
Decreased (%)	7	6	17	8	10	14	5	7	0	26	16
Fluctuated (%)	10	24	10	8	0	0	0	4	27	5	14

Source: WA EDRS REU/RPU interviews, 2003-2013

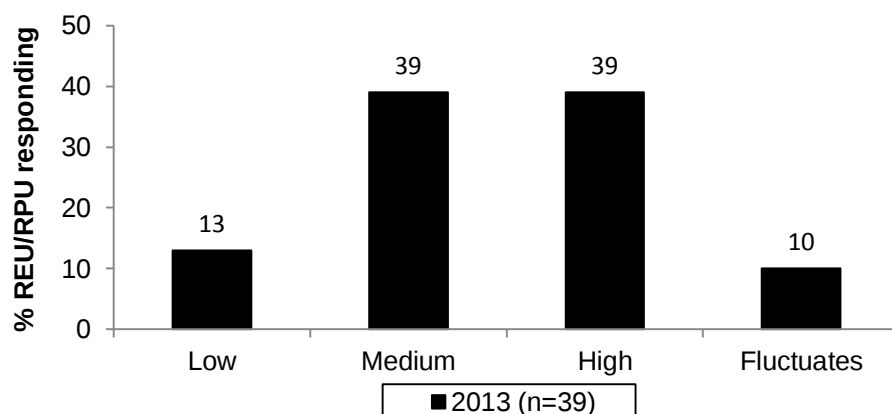
ACC statistics

There were no data available from the ACC (2013) concerning the price of LSD in the 2011/2012 reporting period; however, data obtained from the ACC in 2010/11 indicates that in WA in this period LSD cost between \$25 to \$30 per tab (Australian Crime Commission, 2012).

5.6.2. Potency

There were 39 participants who commented on the potency of LSD in Perth in 2013. As presented in Figure 26, the majority (78%, n=30) of those commenting rated the potency of LSD in the preceding six month period as 'medium' or 'high' (each 39%, n=15). In 2012, the majority (74%) rated the potency as 'high'. Interestingly, while there were no significant changes in reported lifetime or recent use of LSD in the current sample, the proportion able to comment on price, potency and availability of LSD almost doubled (2012 n=17, 2013 n=39).

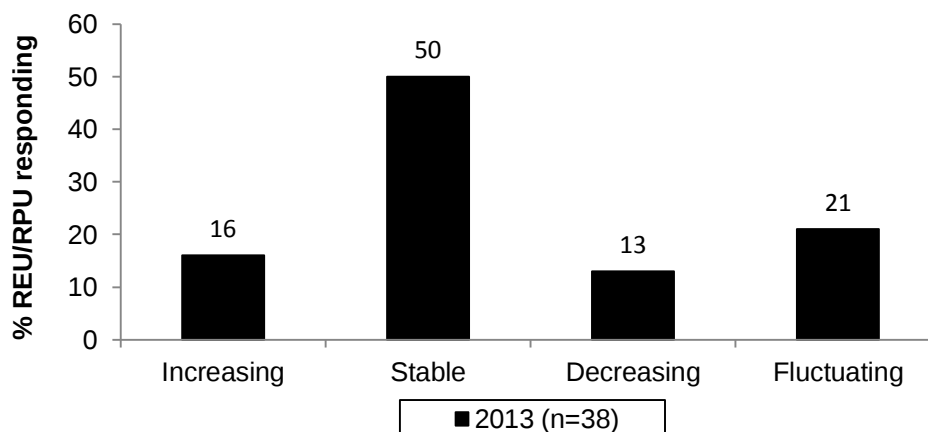
Figure 26: User reports of current LSD potency, 2013



Source: WA EDRS REU/RPU interviews, 2013

Participants were also asked whether there were any changes in the perceived potency of LSD in the preceding six months (see Figure 27). Of those who commented (n=38), half (50%, n=19) reported that LSD potency was 'stable', similar to 51% reporting 'stable' in 2012. In 2013, perceptions were mixed with 21% (n=8) reporting potency as 'fluctuating', 16% (n=6) reporting 'increasing' and 13% (n=5) reporting 'decreasing'.

Figure 27: User reports of changes in LSD potency in the past six months, 2013



Source: WA EDRS REU/RPU interviews, 2013

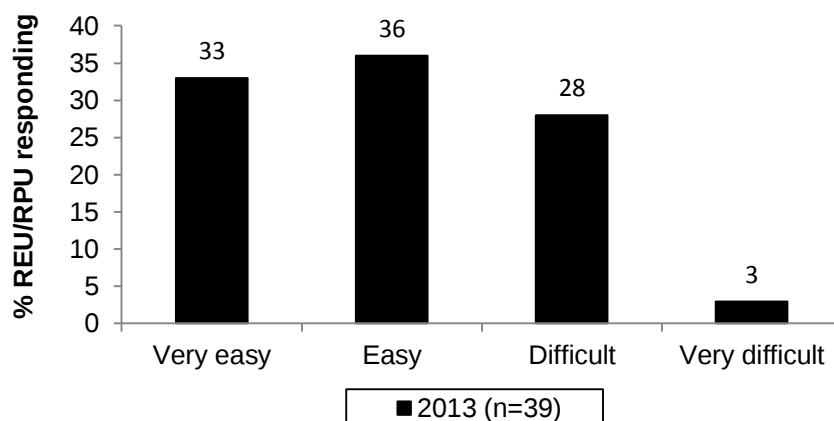
Key expert comments

- A KE, who worked in drug analysis, reported that the purity of LSD being analysed [currently] in WA was considered low to medium.

5.6.3. Availability

Figure 28 presents the perceived current availability of LSD in WA in 2013. Of those who commented (n=39), the majority (69%, n=27) reported that it was either 'easy' (36%, n=14) or 'very easy' (33%, n=13) to obtain. The remaining third reported that LSD was either 'difficult' (28%, n=11) or 'very difficult' (3%, n=1) to obtain. Very similar availability was reported in 2012, with almost three-quarters (70%) reporting that LSD 'very easy' or 'easy' to obtain, and one-third (30%) reporting it was 'difficult' to obtain.

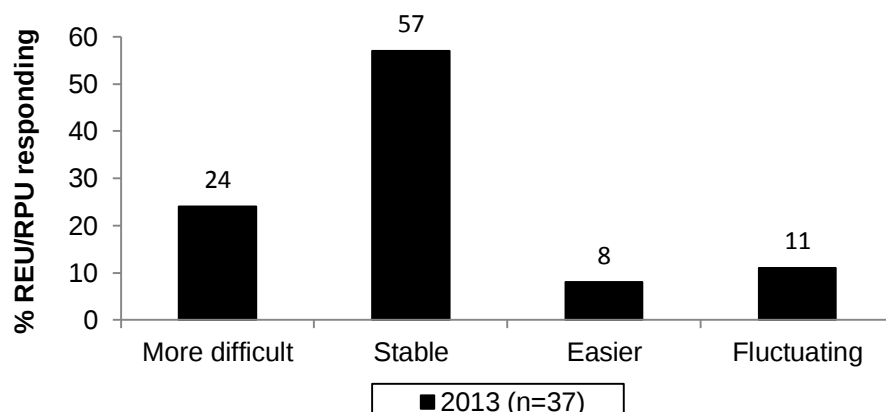
Figure 28: Current availability of LSD, 2013



Source: WA EDRS REU/RPU interviews, 2013

Of those who commented on perceived changes in the availability of LSD over the preceding six months (n=37), the majority (57%, n=21) reported that availability was 'stable'. Following 'stable', the next most common response was 'more difficult' (24%, n=9), 'fluctuating' (11%, n=4) and then 'easier' (8%, n=3). The majority (67%) also considered availability 'stable' in 2012.

Figure 29: Changes in availability of LSD during the preceding six months, 2013



Source: WA EDRS REU/RPU interviews, 2013

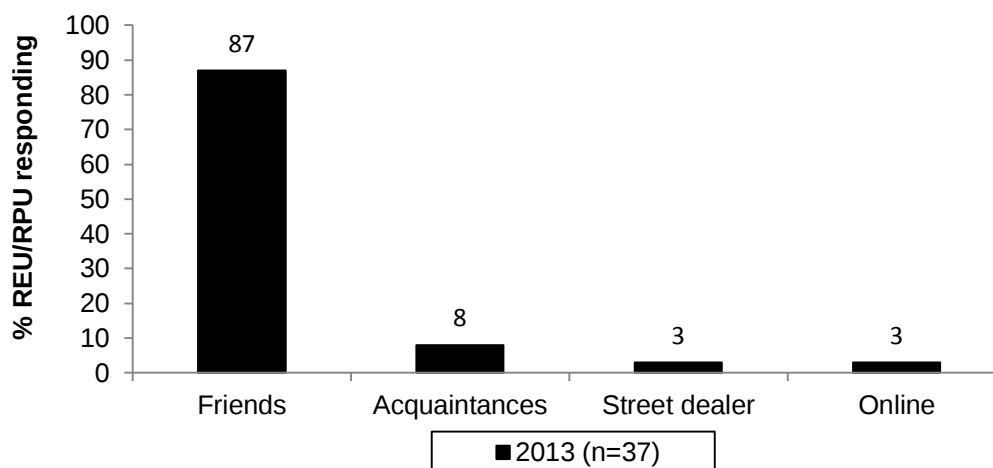
Key expert comments

- A KE, who worked in drug analysis, reported that he had received an increase in LSD samples in the past 18 months, which could be reflective of an increase in availability.

Source person and source location

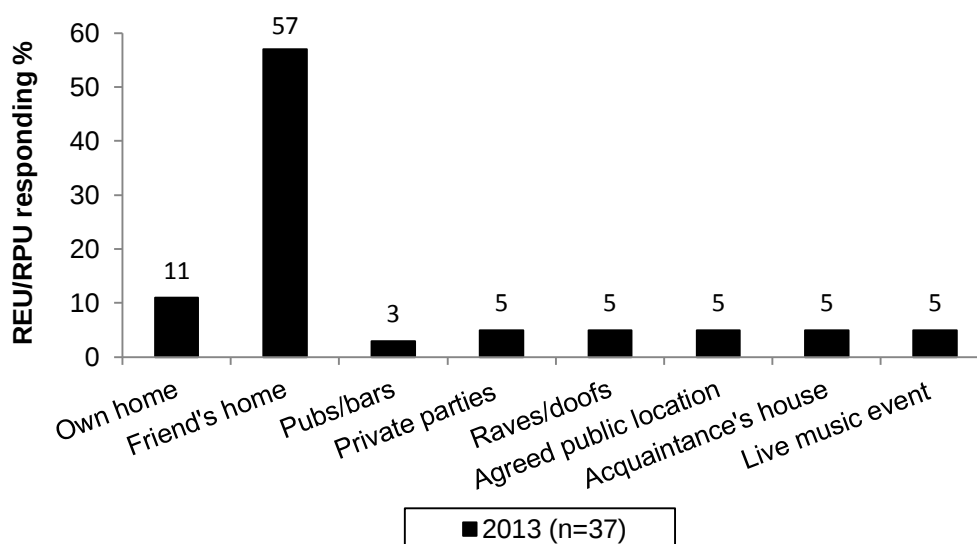
Participants were asked about the person and location from where LSD was last obtained. Of those who commented (n=37), 'friends' were the most commonly reported source for obtaining LSD (87%, n=32), followed by 'acquaintances' (8%, n=3), 'street dealer' and 'online' (each 3%, n=1). Accordingly, the most commonly reported location from where LSD was last obtained was 'friend's home' (57%, n=21), followed by a range of different public and private locations. A complete breakdown is presented in Figure 30 and Figure 31.

Figure 30: Person from whom LSD was last obtained, 2013



Source: WA EDRS REU/RPU interviews, 2013

Figure 31: Locations from where LSD was last obtained, 2013



Source: WA EDRS REU/RPU interviews, 2013

5.6.4. Summary of LSD trends

- The median price per tab of LSD was \$25, compared to \$20 in 2012.
- That majority (60%) reported that the price of LSD was 'stable'.
- The majority rated potency as either 'medium' or 'high' (each 39%) and was most commonly perceived as 'stable' in the six month period (59%).
- Perceptions of availability were mixed, but the majority (69%) rated LSD as either 'easy' or 'very easy' to obtain'.
- The majority reported that availability was 'stable' (57%).
- 'Friends' were the most commonly reported person from whom LSD was last obtained (87%). Accordingly, 'friend's home' was the most commonly reported location of last purchase (57%).

5.7. Cannabis

5.7.1. Price

In 2006 the EDRS began collecting data on various 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 22 presents the median price for an ounce of hydro and bush cannabis according to participant price reports. In 2013, one ounce of hydro cannabis (n=23) cost a median of \$350 (range \$300-\$400), which has been the consistent market price since 2009. Bush cannabis (n=10) has consistently cost slightly less than hydro and in 2013 cost a median of \$300 (range \$150-\$350). Participants also commented on the price of cannabis per gram. The median price per gram of both hydro (n=7) and bush (n=3) cannabis was \$25 (range \$20-\$30), which remains unchanged from 2010. A 'stick' (typically ranging from 0.8-1.8 grams) also cost a median of \$25 (range \$20-\$25) for both bush (n=19) and hydro (n=33).

Consistent with 2012, no participants were able to comment on the price of hash cannabis.

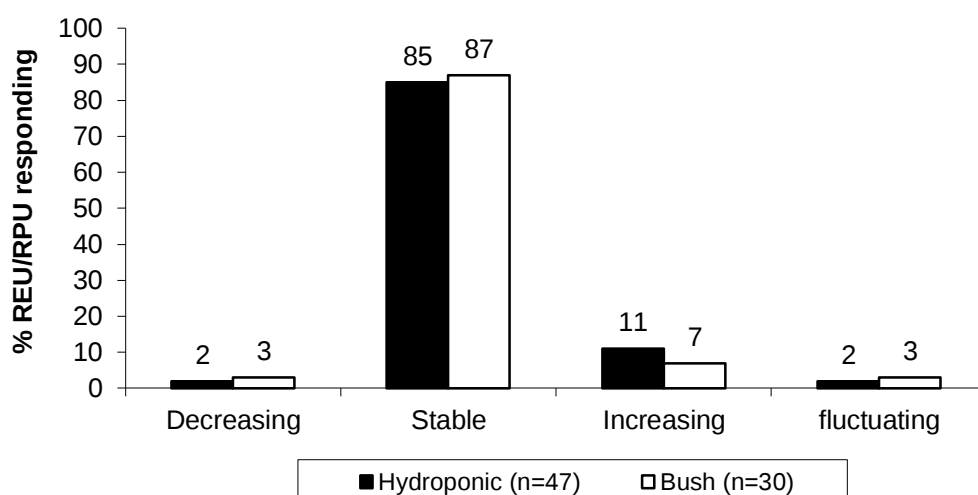
Table 22: Median price of cannabis ounce, 2006-2013

Form of cannabis	2006	2007	2008	2009	2010	2011	2012	2013
Hydroponic	(n=42) \$280	(n=33) \$300	(n=24) \$305	(n=23) \$350	(n=25) \$350	(n=14) \$350	(n=20) \$350	(n=23) \$350
Bush	(n=28) \$250	(n=20) \$250	(n=16) \$275	(n=16) \$280	(n=16) \$280	(n=12) \$250	(n=9) \$300	(n=10) \$300

Source: WA EDRS REU/RPU interviews, 2006-2012

Participants were also asked to report on perceived changes in the price of cannabis in the preceding six month period (Figure 42). Of those who commented (n=47), the majority reported the price of hydro as 'stable' (85%, n=40), followed by 'increasing' (11%, n=5) and then 'fluctuating' and 'decreasing' (each 2%, n=1). Similarly, of those who commented on bush (n=30), the majority also reported the price as 'stable' (87%, n=26), followed by 'increasing' (7%, n=2), and then 'fluctuating' and 'decreasing' (each 3%, n=1). Reports of price and price changes were very similar to 2012 findings.

Figure 32: Recent changes in price of cannabis purchased by REU/RPU, 2013



Source: WA EDRS REU/RPU interviews, 2013

Key expert comments

- Most KE agreed that cannabis price, potency and availability were 'stable' over the preceding six months.
- A KE, who works in mental health, reported that a \$50 bag/deal generally contains about 3.5 grams of cannabis.

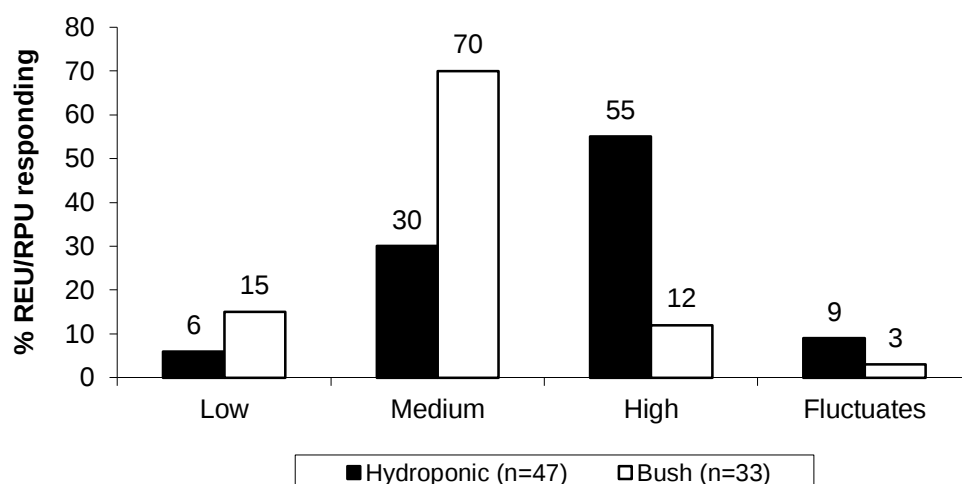
ACC statistics

There was no ACC data available concerning the price of bush cannabis or hashish in WA in the 2011/12 reporting period; however, data obtained from 2010/11 (Australian Crime Commission, 2012) indicates that in WA, during 2010/11, bush cannabis cost \$50 for one gram, cost \$360-\$700 for one ounce (28 grams), and cost \$4,000-\$5,000 for one pound. Data obtained from the ACC indicates that in WA during the 2011/12 period, the price of hydroponic cannabis cost \$30 per gram, cost \$300-\$700 per ounce and cost \$4,400 per pound (Australian Crime Commission, 2013).

5.7.2. Potency

Participants also commented on the current potency of cannabis and perceived changes in potency over the preceding six months. Of those who commented on hydro (n=47), more than half (55%, n=26) rated the current potency as 'high', which was comparable to 66% in 2012. This was followed by 'medium' (30%, n=14), 'fluctuates' (9%, n=4) and then 'low' (6%, n=3). Unlike hydro, bush cannabis was most commonly rated as 'medium' (70%, n=23), which remained comparable to 55% in 2012. The remaining reports regarding bush potency were mixed. A full breakdown of cannabis potency reports are presented in Figure 33.

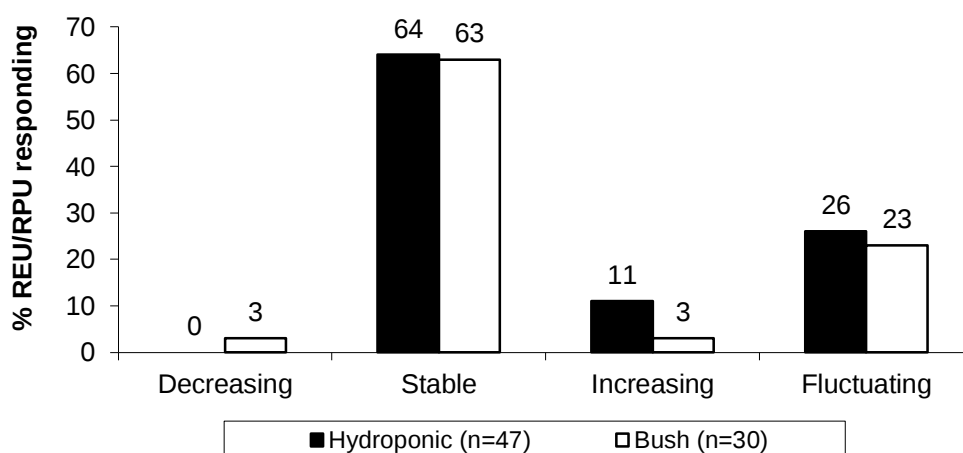
Figure 33: User reports of current potency of cannabis, 2013



Source: WA EDRS REU/RPU interviews, 2013

Figure 34 presents user perceptions of changes to cannabis potency in the preceding six months. Of those who commented on hydro (n=47), the majority (64%, n=30) reported that potency was 'stable'. Similarly, potency was rated as 'stable' by the majority (63%, n=19) of those commenting on bush (n=30).

Figure 34: User reports of changes in cannabis potency in the past six months, 2013

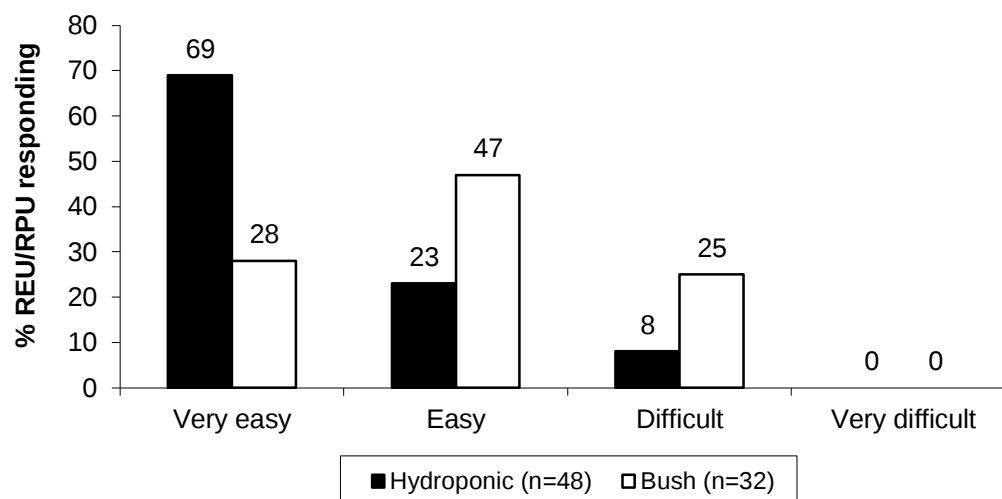


Source: WA EDRS REU/RPU interviews, 2013

5.7.3. Availability

Consistent with recent years, in 2013 the vast majority of those commenting reported that hydro was either 'very easy' or 'easy' to obtain (92% in 2013 versus 95% in 2012). No participants reported that hydro was 'very difficult' to obtain. Similarly, the majority also reported that bush was either 'very easy' or 'easy' to obtain (75% in 2013 versus 79% in 2012); however, a quarter (25%, n=8) also reported that bush was 'difficult' to obtain. Overall, as evident in Figure 35, user perceptions suggest that hydro is the more available form of cannabis in Perth.

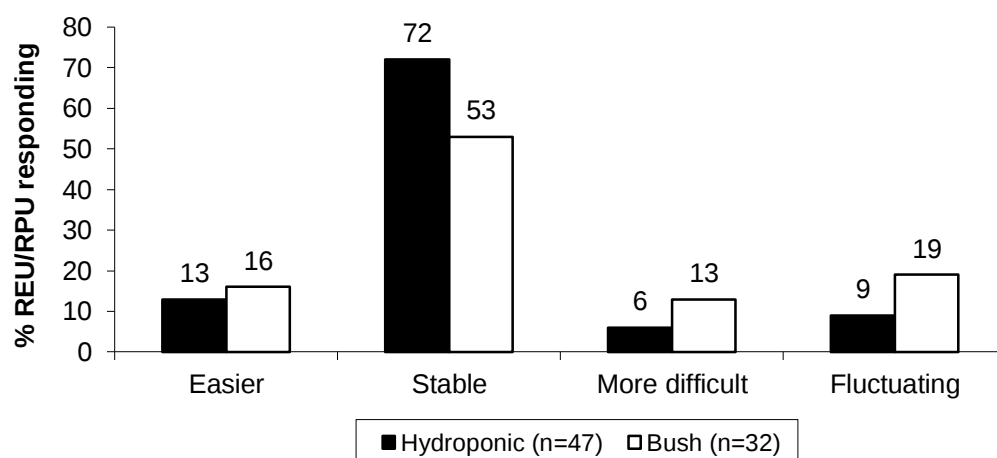
Figure 35: Current availability of cannabis, 2013



Source: WA EDRS REU/RPU interviews, 2013

Participants were also asked to comment on perceived changes in the availability of cannabis over the preceding six months. As presented in Figure 36, the majority (72%, n=34) reported that hydro availability was 'stable'. Likewise, the majority (53%, n=17) also reported that bush was 'stable'; however, as evident in Figure 36, almost half (47%, n=15) indicated some variation in availability. Overall, user perceptions of availability suggest that availability of bush cannabis might also be less stable than hydro in Perth.

Figure 36: Changes in cannabis availability in the preceding six months, 2013



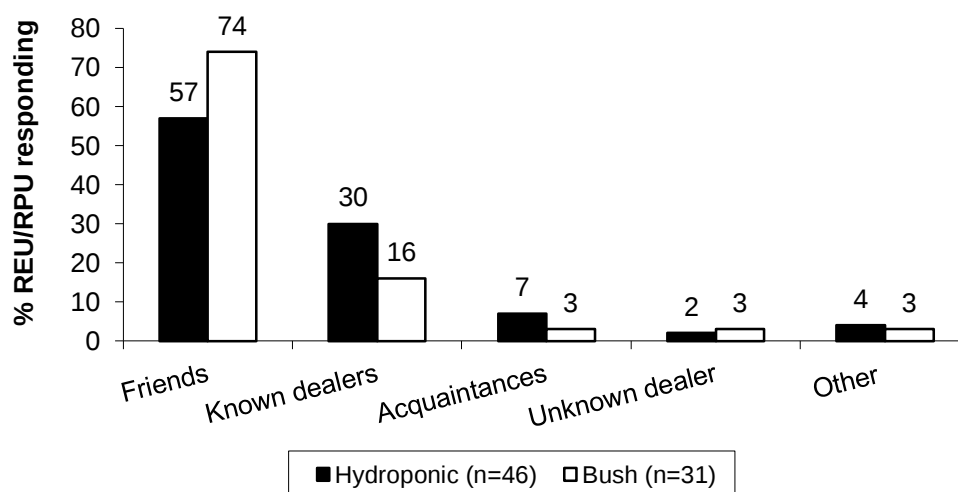
Source: WA EDRS REU/RPU interviews, 2013

Source person and source location

As presented in

Figure 37, 'friends' were the most commonly reported person from whom cannabis was last obtained, for both hydro (57%, n=26) and bush (74%, n=23). The second most commonly reported person was 'known dealers' again for both hydro (30%, n=14) and bush (16%, n=5).

Figure 37: Person from whom cannabis was last obtained in the preceding six months, 2013

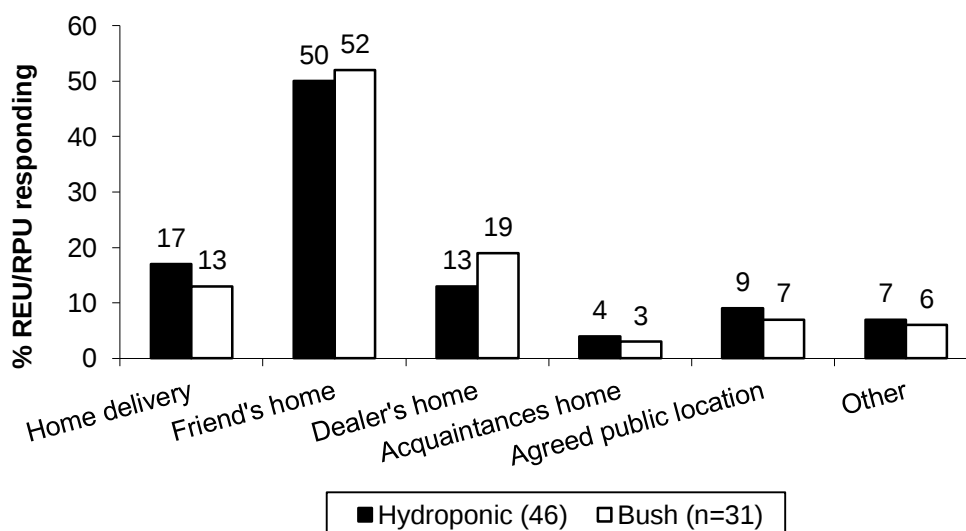


Source: WA EDRS REU/RPU interviews, 2013

Consistent with

Figure 37, 'friend's home' was the most commonly reported location from where cannabis was last obtained, for both hydro (50%, n=23) and bush (52%, n=16). This was followed by 'own home' and 'dealer's home'. A full breakdown is presented in Figure 38.

Figure 38: Last location where cannabis was obtained in the preceding six months, 2013



Source: WA EDRS REU/RPU interviews, 2013

ACC statistics

The ACC reported that in 2011/12 there were 8,526 seizures of cannabis in WA, compared to 8,140 in the 2010/11 reporting period. Seizures for the latest reporting period weighed a total of 295,008 grams, compared to 416,581 grams in 2010/11 (Australian Crime Commission, 2012, 2013). This indicates that while there was an increase in seizures in 2011/12, the total weight of seizures decreased from 2010/11.

5.7.4. Summary of cannabis trends

Hydro

- The median price per ounce was \$350, which has been consistent since 2009.
- The median price per gram was \$25, which is also consistent with recent years.
- The majority of participants reported that the price of hydro was 'stable' (85%).
- The majority of participants rated current potency of hydro as 'high' (55%) and 'stable' (64%).
- The majority of participants rated current availability of hydro as 'very easy' (69%) and 'stable' (72%).

Bush

- The median price per ounce was \$300, consistent with 2012.
- The median price per gram was \$25, consistent with recent years.
- The majority reported that the price of bush was 'stable' (87%).
- The majority of participants rated current potency of bush as 'medium' (70%) and 'stable' (63%).
- Almost half of those commenting rated current availability of bush as 'easy' (47%) and the majority reported availability as 'stable' (53%).

Hash

- No participants commented on the price, potency or availability of hash.

'Friends' were by far the most commonly reported source of both forms of cannabis. Accordingly, 'friend's home' was the most commonly reported location from where cannabis was last obtained.

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

6.1. Overdose and drug-related fatalities

Since 2007, participants were asked separately about overdose on a stimulant drug and on a depressant drug. In both instances, 'overdose' was defined as presenting with symptoms consistent with either stimulant toxicity (e.g. nausea and vomiting, chest pains, tremors, increased body temperature or heart rate, seizure, extreme paranoia, anxiety or panic, hallucinations) or symptoms consistent with a depressant overdose (e.g. reduced level of consciousness, respiratory depression, turning blue, collapsing). As such, the following sections are based on participants' understanding of these definitions and their opinions as to whether they had overdosed.

6.1.1. Stimulant overdose

In 2013, approximately two-fifths (39%) reported overdosing on a stimulant drug at some point in their lifetime, which did not represent a significant change from 2012 (51%). Of those who had ever overdosed on a stimulant drug (n=39), the median number of times they had done so in their lifetime was two times (range 1-10), as found in 2012. Additionally, the most recent overdose occurred on a median of 2 months ago (range 1-24), compared to 5 months ago in 2012 and 20 months ago in 2010.

Table 23: Ever overdosed on a stimulant drug, 2013

	Stimulant
Ever overdosed (%)	39
Median number of times (range)*	2 (1-10)
Months since most recent overdose*	2 (1-24)
Overdosed in last 12 months (%) *	72

Source: WA EDRS REU/RPU interviews, 2013

* Of those who had ever overdosed

Of those participants who had experienced a stimulant overdose in their lifetime (n=39), the majority (72%, n=29) had experienced one in the past 12 months. This equates to 29% of the overall sample experiencing a recent stimulant overdose, comparable to 30% in 2012. For the first time in 2013 participants were asked what they perceived to be the cause of the overdose. Almost half (46%) reported that they had consumed too much, 18% reported that they had consumed a 'bad/adulterated pill' (refers to a pill that was suspected to contain a substance, or cutting agent, other than MDMA), 14% reported that they had both consumed too much and consumed a bad/adulterated pill, and the remaining 21% reported other reasons for overdose. Some other reasons reported included an interaction of individual and environmental factors (e.g. hot environment, not drinking enough water, etc.).

Participants were asked the main drug that they would attribute the stimulant overdose to. In 2013, more than half (61%, n=17) reported that ecstasy was the main drug they attribute it to. Following ecstasy, LSD and pharmaceutical stimulants were the most commonly reported drugs attributed to stimulant overdose (each 11%, n=3). The majority (66%, n=19) of those that had experienced a stimulant overdose recently, reported taking at least one other drug in combination when the overdose occurred. These drugs included alcohol (39%), ecstasy (14%) and unknown adulterated contents of ecstasy (7%), cannabis (14%), pharmaceutical stimulants (11%), magic mushrooms (4%), GHB (4%), nitrous oxide (4%) crystal meth (4%).

The most common location where stimulant overdoses were reported to have occurred in the last 12 months was at a nightclub (29%, n=8). Stimulant overdoses were reported to have occurred mainly during a 'heavy session' (71%), opposed to a 'normal night out' (29%). The median amount of time spent "partying" prior to overdose was 5 hours (range 1-96 hours). Less than half (43%, n=12) reported that there was a sober person present at the time of overdose who was able to assist to them. Further, while 36% (n=10) reported being monitored/watched by friends, no participants reported receiving formal immediate medical responses to these overdoses. Other treatment, reported by those who experienced an overdose, included being given a benzodiazepine/sleeping tablet by a friend (18%). A breakdown of this data is presented in Table 24.

Table 24: Recently overdosed on a stimulant drug – reported causes, 2013

(%)	Stimulant
Perceived cause*	
Consumed too much	46
Consumed a bad/adulterated pill	18
Both too much and bad/adulterated pill	14
Another reason	21
Main drug*	(n=28)
Ecstasy	61
Ice/crystal	7
Speed	4
Pharmaceutical stimulants	11
LSD	11
Other	7
Location of most recent overdose*	(n=28)
Home	11
Friend's home	18
Private party	18
Rave/doof	4
Nightclub	29
Public place	7
Car	4
Live music event	11
Median time spent partying prior to overdose**	5 hrs
Sober person available to assist**	
Yes	43
No	57

Source: WA EDRS REU/RPU interviews, 2013

* Of those who had overdosed in past 12 month

A variety of different symptoms were reported by participants as the main symptom that was experienced during stimulant overdose. The most commonly reported main symptom was 'delirium/confusion' (18%, n=5), followed by 'extreme anxiety', 'increased heart rate' and 'chest pain' (each 11%, n=3). The most common 'other symptoms' reported included 'increased body temperature' (50%, n=14), 'dizziness' and 'extreme anxiety' (39%, n=11) and 'increased heart rate' (36%, n=10). Other symptoms reported by participants that weren't listed options included 'dissociation',

'inability to swallow', 'inability to move', 'sweats' and 'bad thoughts'. A breakdown of symptoms is presented in Table 25.

Table 25: Recently overdosed on a stimulant drug– reported symptoms, 2013

(%)	
Overdose main symptom*	(n=28)
Nausea	7
Vomiting	4
Chest pain	11
Tremors	4
Increased body temperature	4
Increased heart rate	11
Headache	7
Extreme anxiety	11
Paranoia	4
Hallucination-visual	7
Delirium	18
Passed out	4
Other	11
Overdose other symptoms*	
Nausea	25
Vomiting	14
Chest pain	7
Tremors	14
Increased body temperature	50
Increased heart rate	36
Irregular breathing- rapid	14
Irregular breathing-shallow	4
Headache	21
Extreme anxiety	39
Panic	32
Extreme agitation	14
Paranoia	25
Hallucination-auditory	25
Hallucination-visual	25
Agitation	7
Delirium/confusion	36
Passed out	4
Dizziness	39
Muscle twitches	25
Other	21

Source: WA EDRS REU/RPU interviews, 2013

* Of those who had overdosed in past 12 months

6.1.2. Depressant overdose

In 2013, almost one-third (30%) of the sample reported experiencing an overdose on a depressant drug at some point in their lifetime, which did not significantly change from 38% in 2012. Of those who had ever overdosed on a depressant drug, the median number of times they had done so was two times (range 1-20), compared to three times in 2012. The most recent depressant overdose occurred on a median of 4 months ago (range 1-18), compared to 12 months in 2012. These data are presented in Table 26.

Table 26: Ever overdosed on a depressant drug, 2013

(%)	2013
Ever overdosed	30
Median number of times (range)*	2 (1-20)
Months since last overdose	4
Overdosed in last 12 months*	63

Source: WA EDRS REU/RPU interviews, 2013

** Of those who had overdosed in past 12 months

Of those participants who reported experiencing a depressant overdose (n=30), approximately two-thirds (63%, n=19) had experienced one in the past 12 months. This equates to 19% of the overall sample experiencing a recent depressant overdose, comparable to 21% in 2012. The main drug depressant overdoses were attributed to was 'alcohol' (79%, n=15), followed by 'cannabis' (11%, n=2) and then 'benzodiazepines' (5%, n=1). Additionally, almost half (42%, n=8) reported taking another drug in combination when the depressant overdose occurred. Other drugs reported to have been used in combination included 'ecstasy' (63%, n=5%), 'cannabis' (38%, n=3), and 'alcohol', 'benzodiazepines', 'mushrooms' and 'pharmaceutical stimulants' (each 13%%, n=1).

The most commonly reported locations where depressant overdoses occurred were at a 'private party' or a 'nightclub' (each 26%, n=5), followed by 'own home' (16%, n=3). The median time spent 'partying' prior to overdose on a depressant drug was 5 hours (range 1-48 hours), and the overdose occurred almost equally on 'a normal night out' (53%, n=10) and during 'a heavy session' (47%, n=9). A little over half (58%, n=11) reported that there was a sober person present at the time of overdose that was able to assist them. Only one participant reported receiving formal immediate medical treatment, attending a hospital emergency department. The majority (68%, n=13) reported being monitored/watched by friends. A few participants (16%, n=3) reported having sought further advice or treatment later, and this was sought from a psychiatrist (n=1) and a general practitioner (GP) (n=2).

A complete breakdown of this data is presented in Table 27.

Table 27: Recently overdosed on a depressant drug, 2013

(%)	2013
Main drug*	(n=19)
Alcohol	79
Benzodiazepines	16
Other	5
Location of most recent overdose*	(n=19)
Home	16
Friend's home	5
Nightclub	26
Pub	5
Private party	26
Public place	11
Educational institute	5
Other	5
Median time spent partying prior to overdose*	5 hrs
Sober person available to assist*	
Yes	43
No	57

Source: WA EDRS REU/RPU interviews, 2013

* Of those who had overdosed in past 12 months

The most common main symptom reported to have been experienced during a depressant overdose was 'losing consciousness' (42%, n=8), followed by 'vomiting' (26%, n=5).

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.

A breakdown of reported depressant overdose symptoms is presented in Table 28.

Table 28: Recently overdosed on a depressant drug – symptoms, 2013

(%)	2013
Overdose main symptom*	(n=19)
Suppressed breathing	6
Collapsing	16
Losing consciousness	42
Vomiting	26
Psychological symptoms (depressed mood)	11
Overdose other symptoms*	(n=19)
Suppressed breathing	16
Collapsing	16
Losing consciousness	16
Vomiting	5
Agitation	11
Blackout/memory loss	16
Paranoia	5

Source: WA EDRS REU/RPU interviews, 2013

* Of those who had overdosed in past 12 months

6.2. Help-seeking behaviour

Participants were asked if they had accessed a service or health professional in relation to their drug use in the preceding six months (Table 29). Of the current sample, only 8% reported accessing a service. Participants were also asked if they had thought about accessing a health service or professional in relation to their drug use the preceding six months. Of the current sample, 18% had thought it, but had not acted. Various reasons were reported for not accessing help; the most common being 'no time', 'not a priority' and 'worked out on my own' (each 22%). Other reasons reported included 'could not be bothered', 'bad experience previously' and 'wasn't problematic enough' (each 6%).

Table 29: Percent who accessed health services in relation to drug use, 2013

Service (%)	2013 N=100
Accessed medical/health service (%)	8
Thought about accessing a medical/health service, but did not act	18

Source: WA EDRS REU/RPU interviews, 2013

In 2013, all participants were asked which of the following health services and professionals they had accessed over the past six months and how many visits with each health professional they had had, and of those visits how many were related to alcohol and other drugs. Doctors (general practitioners) were seen, as expected, by the majority of the sample (70%). Smaller proportions of the sample reported seeing the Emergency Department (8%) and dentists (7%). For the full list of services see Table 31.

Table 30: Percent who accessed a health service for any issue, 2013

Service (%)	2013 N=100
Doctor (GP)	70
Dentist	7
Emergency Department	8
Psychologist	1
Psychiatrist	2
Drug and alcohol counsellor	2
Other health professional	2
Specialist doctors (not psychiatrists)	1
Social Welfare workers	2

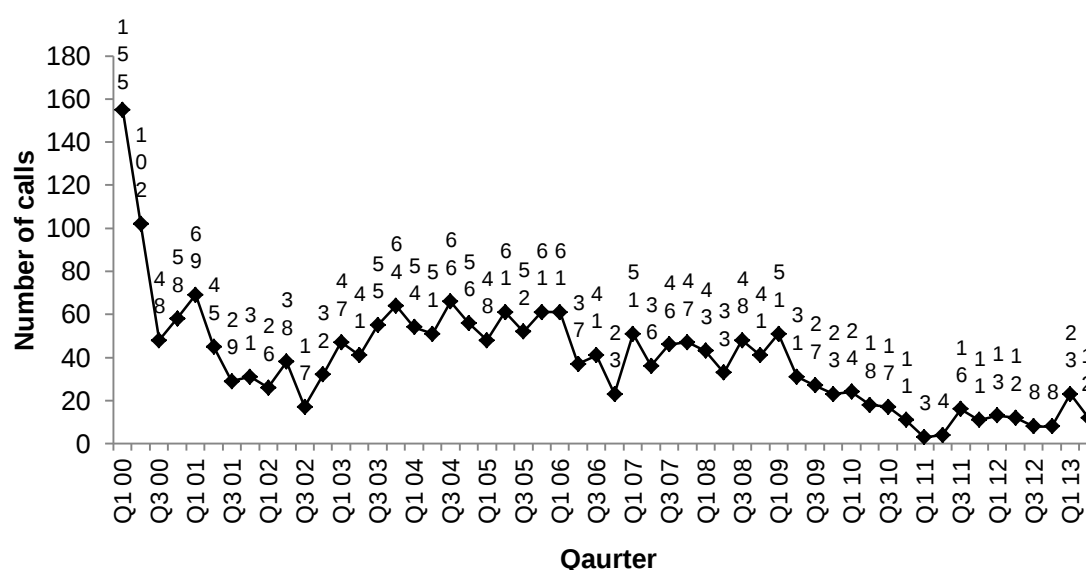
Source: WA EDRS REU/RPU interviews, 2013

Of those that had seen a Doctor (GP), the median number of times a doctor was seen for any reason was twice (range 1-30). When asked of those times, how many visits were alcohol or other drug related, the median was zero (range 0-8). The main drugs reported for visits to the Doctor, of those that reported having seen the Doctor for alcohol or other drug related issues, included alcohol, ecstasy and crystal methamphetamine.

The WA ADIS provides a free anonymous and confidential 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 2012/13 period, ADIS received a total of 24,239 calls, in comparison to 23,632 calls during the 2011/12 reporting period.

Calls to ADIS involving ecstasy as the primary drug of concern are presented by quarter in Figure 39. In the 2012/13 period, there were 51 calls to ADIS involving ecstasy as the primary drug of concern (i.e. approximately one call per week), almost identical to 52 calls in the 2011/12 period. These calls comprised 0.2% of all calls received by ADIS during the 2012/13 period. As evident in Figure 39, calls concerning ecstasy have been consistently low in recent years.

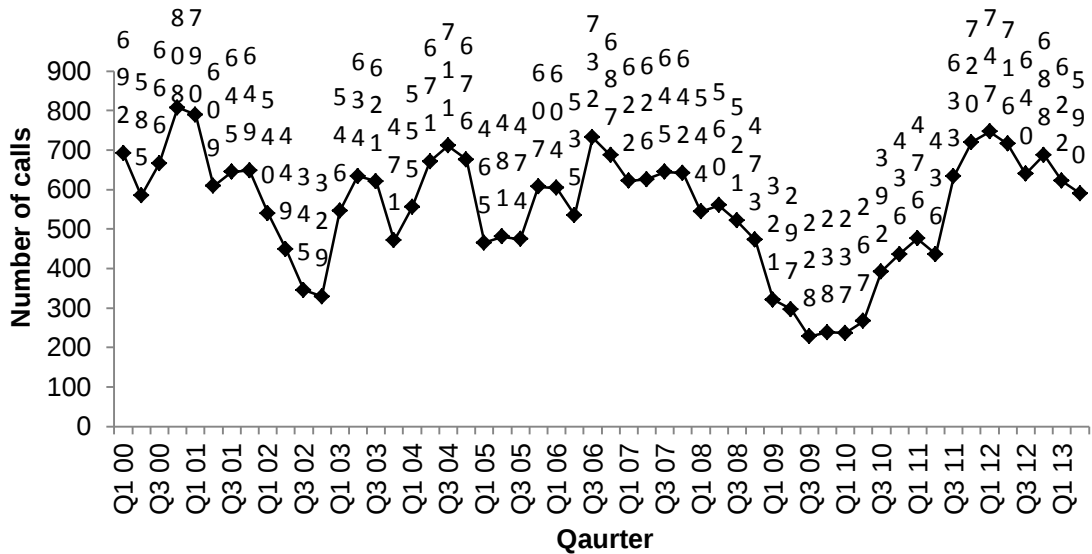
Figure 39: Number of ADIS inquiries concerning ecstasy as primary drug of concern, WA January 2000 to June 2013



Source: WA ADIS

In the 2012/13 period, there were a total of 2,540 calls to ADIS involving (meth)amphetamines as the primary drug of concern, in comparison to 2,816 in 2011/12 and 1,740 in 2010/11. These calls comprised 10.5% of all calls received by ADIS during the 2012/13 period, similar to 11.9% during the 2011/12 period. Calls to ADIS involving (meth)amphetamine as the primary drug of concern are presented by quarter in Figure 40. On the whole, calls regarding methamphetamine appeared to steadily increase from the third quarter of 2009 to the first quarter of 2012; however, since then there has been a gradual declining trend which has continued into the second quarter of 2013.

Figure 40: Number of ADIS inquiries concerning (meth)amphetamines as primary drug of concern, WA January 2000 to June 2013



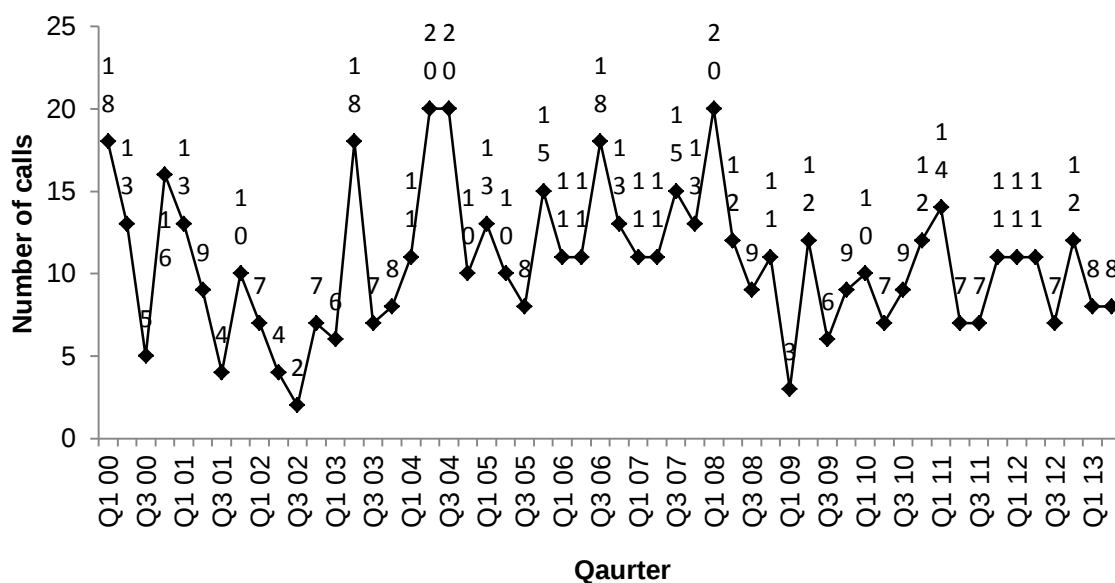
Source: WA ADIS

Key expert comments

- A KE, from the WA ADIS, reported that ADIS considered methamphetamine to be the drug causing the greatest concern at the time of interview (June 2013). The KE expressed concerns regarding a perceived increase in mental health issues related to use, with many people calling experiencing anxiety and paranoia.

In the 2012/13 period, there were 35 calls to ADIS involving cocaine as the primary drug of concern, compared with 40 calls the previous year. These calls comprised 0.14% of all calls received by ADIS during 2012/13, comparable to 0.17% in the 2011/12 period. Calls to ADIS involving cocaine as the primary drug of concern are presented by quarter in Figure 41. Overall, the number of cocaine related calls received by ADIS has fluctuated, but consistently remained low.

Figure 41: Number of ADIS inquiries concerning cocaine as primary drug of concern, WA January 2000 – June 2013



Source: WA ADIS

6.3. Other self-reported problems

In previous years, EDRS participants 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 the domains of 'social', 'legal', 'risk' and/or 'responsibility' (see Table 31).

The most common problem reported by the current sample was in the area of 'risk' (50%), followed by 'responsibility' (39%), 'social' (26%) and then 'legal' (6%).

Of those who reported a 'risk' problem (n=50) (e.g. driving while intoxicated), the greatest proportion attributed the risk to 'alcohol' (55%, n=27), followed by 'ecstasy' (20%, n=10), 'cannabis' (10%, n=5), 'LSD' (6%, n=3) and then 'crystal meth', 'nitrous oxide' and 'speed' (each 2%, n=1).

Of those reporting a 'responsibility' problem (n=39) (e.g. absences from work), the greatest proportion attributed the problem 'ecstasy' (34%, n=13), followed by 'cannabis' (29%, n=11), 'alcohol' (21%, n=8), 'crystal meth' and 'speed' (each 5%, n=2), and then 'LSD' and 'other opiates' (each 3%, n=1).

Of those who reported a 'social' problem (n=26) (e.g. arguing with friends), the greatest proportion attributed the problem to 'alcohol' (35%, n=9), followed by 'ecstasy' (31%, n=8), 'cannabis' (23%, n=6) and then 'crystal meth', 'speed' and 'amyl nitrate' (each 4%, n=1).

Of those who reported a recurrent 'legal' problem (n=6) (e.g. loss of licence), the greatest proportion again attributed it to 'alcohol' (50%, n=3), followed by 'cannabis' (33%, n=2) and then 'ecstasy' (17%, n=1).

A complete breakdown of this data is presented in Table 31.

Table 31: Self-reported drug-related problems and main drug implicated, 2013

	Any drug (N=100) [#]	Ecstasy (%) [*]	Speed (%) [*]	Crystal (%) [*]	LSD (%) [*]	Cann- abis (%) [*]	Alcohol (%) [*]	Misc. (%) [*]
Social (%)	26	31	4	4	0	23	35	4
Legal (%)	6	17	0	0	0	33	50	0
Risk (%)	50	20	2	2	6	10	55	2
Responsibility (%)	39	34	5	5	3	29	21	3

Source: WA EDRS REU/RPU interviews, 2013

^{*} Of those who nominated the problem

[#] Participants could select multiple categories of problems allowing percentage totals to exceed 100

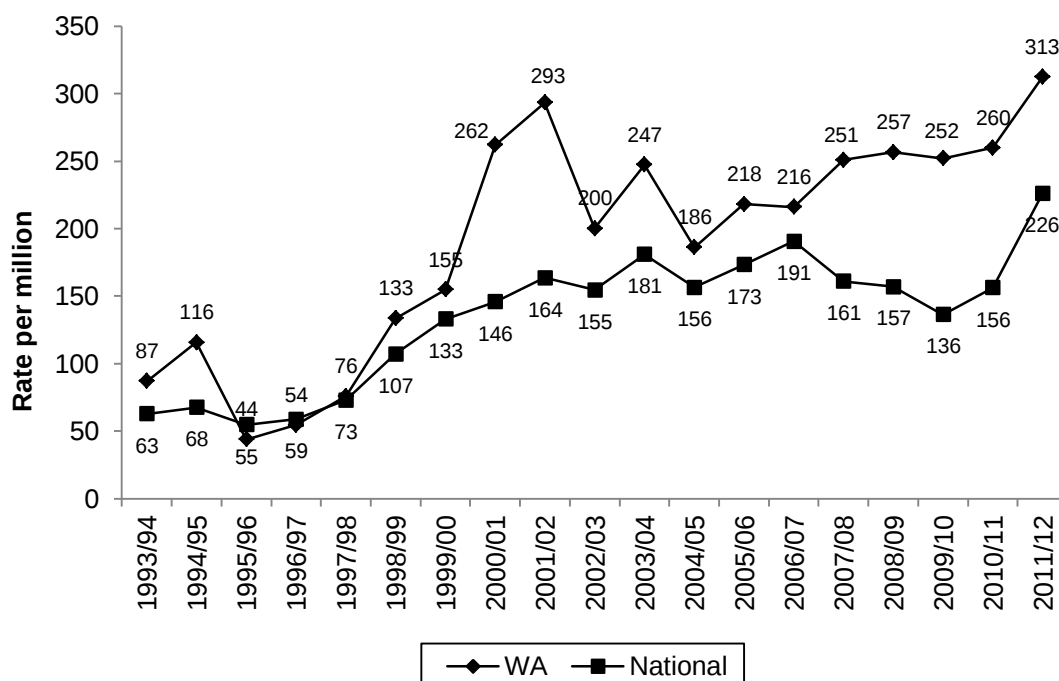
6.4. Hospital admissions

CAVEAT

There was a change in the data collection process for hospital admissions from the 2010/11 reporting period onwards. It is possible that this change could have impacted on trends in data reported within this section.

Figure 42 presents the rate of hospital admissions in WA and nationally in which (meth)amphetamines were identified as the primary diagnosis. The AIHW defines primary diagnosis as the diagnosis established (after study) to be chiefly responsible for occasioning the patient's episode of care in hospital. As evident in Figure 42, rates of methamphetamine hospital admissions appear to have increased on both state and national levels in the 2011/12 reporting period.

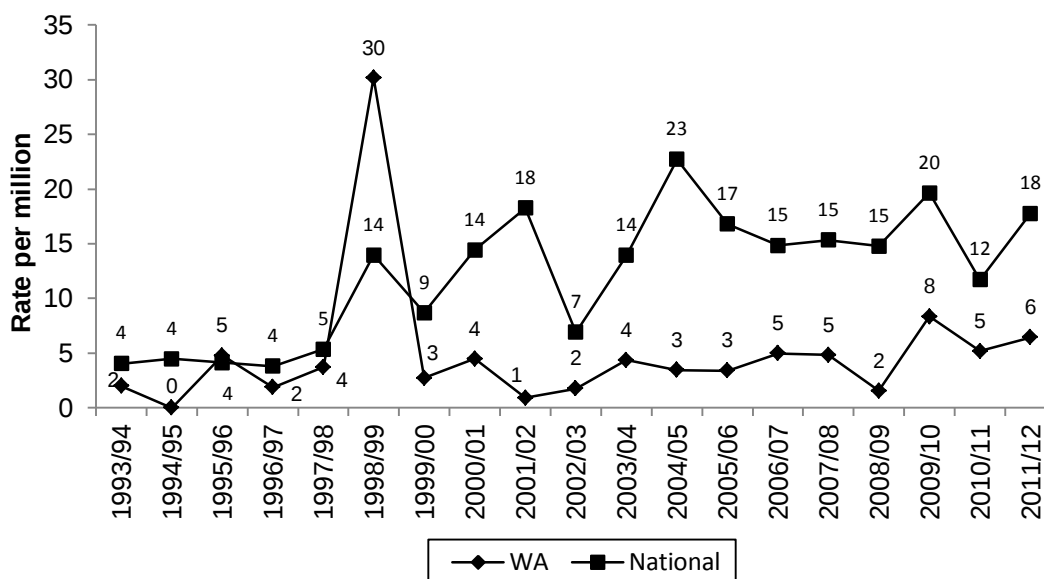
Figure 42: Rate of in-patient hospital admissions where (meth)amphetamines were the primary diagnosis in persons aged 15-54 in WA and nationally, July 1993-June 2012



Source: Australian Institute of Health and Welfare

As evident in Figure 43, WA rates of hospital admissions where cocaine was the primary diagnosis have remained consistently low over the past two decades, with the exception of 1998/99. Since this peak, WA rates of cocaine-related hospital admissions have declined and remained substantially lower than national rates.

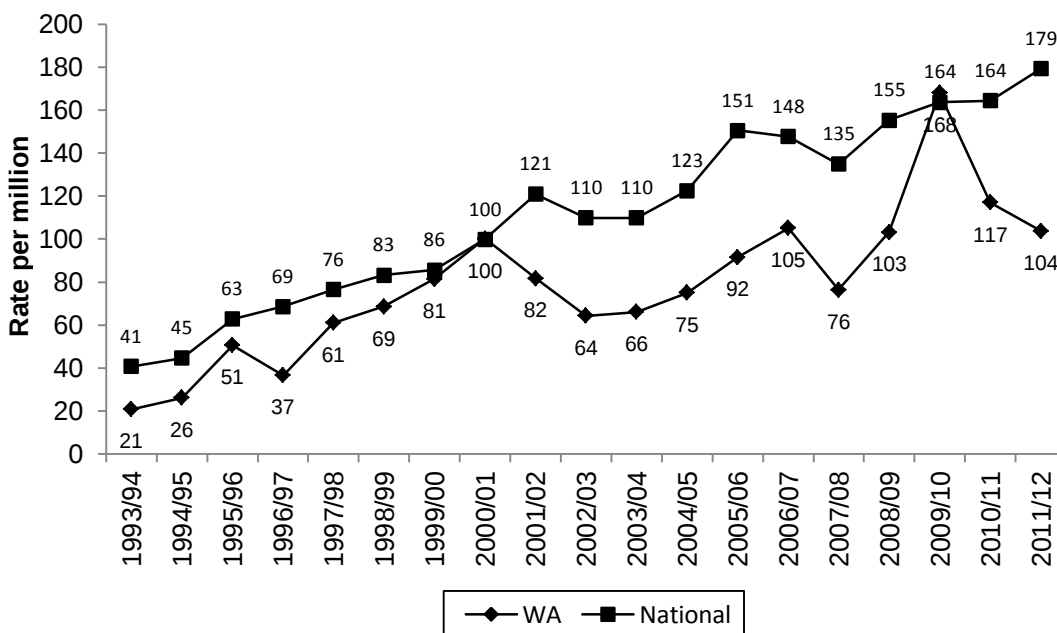
Figure 43: Rate of hospital admissions where cocaine was the primary diagnosis in persons aged 15-54 years, WA and nationally, July 1993-June 2012



Source: Australian Institute Health and Welfare

Figure 44 presents rates per million of hospital admissions where cannabis was the primary diagnosis. The 2009/10 period saw the greatest spike in rates of WA cannabis-related hospital admissions in almost two decades, but rates have since declined and in the 2011/12 reporting period remain substantially below national rates.

Figure 44: Rate of hospital admissions where cannabis was the primary diagnosis in persons aged 15-54 years, WA and nationally, July 1993-June 2012



Source: Australian Institute Health and Welfare

Secondary indicator data relating to drug-related hospital admissions in the 2012/13 and 2013/14 periods was not available at the time of writing. All data used to report on rates of hospital admissions can be located in Roxburgh and Burns (in press).

Key expert comments

- A KE, who worked in a hospital setting, reported that ecstasy presentations tend to be seasonal and linked to the Summer music festival period. The KE reported that there had been no observable increase, but that the Emergency Department (ED) would often see a bunch of young people present on the same day, often having just been to a music festival. Presentations were reported to include symptoms of anxiety, dehydration and concerns over heart rate. The KE reported that they were generally fine, but required some fluids and an overnight stay.

6.5. Mental health problems

6.5.1. Mental health problems and psychological distress (K10)

The KESler 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 100 participants in 2013, the most common level of psychological distress was 'moderate distress' (score of 16-21) with 35 participants falling within this category. This was followed by 'low to no distress' (score of 10-15) (n=30), 'high distress' (n=23) and then 'very high distress' (n=8). A comparison of the 2013 scores is compared to 2012 scores in Table 32. Overall, in 2013 there were 32% falling into the 'high distress' or 'very high distress' categories, compared to 19% in 2012.

Table 32: K10 Scores, 2013

Score Category (%)	2012	2013
Low to no distress	40	31
Moderate distress	40	37
High distress	18	24
Very high distress	1	8

Source: WA EDRS interviews, 2013

Key expert comments

- The main drugs KE expressed mental health concerns over were alcohol, cannabis, crystal methamphetamine and NPS, particularly synthetic cannabis.
- The main mental health concern related to alcohol use was in the context of long-term chronic users experiencing depression. Concerns in relation to cannabis were in the context of medium to long-term use, but were more wide-ranging, and included paranoia, anxiety, depression and the development of psychosis. Concerns regarding methamphetamine were in the context of both short and long-term use, including paranoia, agitation, anxiety, panic, depression and drug-induced psychosis. Concerns related to NPS were mainly focused around the uncertainty and unpredictability of short and long term effects of use.

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 experienced any mental health problems in the preceding six month period, including those issues that they had and had not spoken to a health professional about.

In the current sample, more than one-third (36%) reported experiencing a mental health problem in the preceding six months, compared to 28% in 2012 sample. Of these participants, the main mental health problem specified was 'depression' (78%, n=28), followed by 'anxiety' (61% n=22). Of those who identified with having a mental health problem in the preceding six months (n=36), less than half (36%, n=13) reported attending a mental health professional in this time, compared with 64% in 2012. A complete breakdown of reported mental health problems is presented in Table 33.

Table 33: Percent who reported recent mental health problems, 2013

(%)	2013 N=100
Recent mental health problem	36
<i>Of those who reported a mental health problem (n=36)</i>	
Types of problems reported[#]	
Depression	78
Anxiety	61
Mania	6
Bipolar	6
Panic	8
OCD	6
Paranoia	11
Personality disorder	3
PTSD	14
Other	19
Attended a professional	36
Prescribed psych med*	77

Source: WA EDRS REU/RPU interviews, 2013

[#]Participants could select multiple categories of problems allowing percentage totals to exceed 100

* Of those who attended a health professional

Of those participants who reported attending a mental health professional (n=13), the majority (77%, n=10) reported being prescribed a medication in the last six months. Medications prescribed included anti-depressants (n=10), benzodiazepines (n=2), anti-psychotics (n=1) and mood stabilisers (n=1).

Prescribed anti-depressants included 'Lexapro®' (n=3), 'Pristiq®' (n=2), 'Mirtazapine', 'Citalopram', 'Avanza' and 'Escitalopram' (each n=1). Prescribed benzodiazepines included 'Alprazolam' (n=2). Prescribed anti-psychotics included 'Seroquel®' and 'Abilify®' (n=1). Prescribed mood stabilisers included 'Lamotrigine' and 'Carbamazepine' (n=1).

6.6. Summary of health-related trends

Overdose, deaths and hospital admissions

- More than one-third of participants (39%) reported having overdosed on a stimulant drug at some point in their lifetime, which did not significantly change from 2012 (51%).
- Almost one-third of participants (30%) reported having overdosed on a depressant drug at some point in their lifetime, which did not significantly change from 2012 (38%).
- Ecstasy was the most commonly implicated drug attributed to stimulant overdoses (61%), while alcohol was the most commonly implicated drug in depressant overdoses (79%).
- Hospital admissions in which amphetamine was the principal diagnosis appear to have increased on both state and national levels; rates for cocaine appear to be relatively stable, and rates for cannabis appear to have slightly decreased on a state level, but increased on a national level.

Service usage

- Access to medical or health services in relation to their drug use in the past six months was reported by only 8%.
- The number of calls to ADIS concerning ecstasy remained low, with a small spike in the first quarter of 2012 (23 calls). Calls to ADIS concerning ecstasy appear to have declined from early 2007 onward.
- Calls to ADIS concerning methamphetamine have been increasing since late 2009, but appear to have declined in the 2012/13 period.

Mental health

- The most commonly reported problem related to participant drug use was in the area of risk of injury (50%), followed by responsibility interferences (39%) and then social problems (26%). Recurrent drug-related legal problems were uncommon (6%).
- Alcohol and ecstasy were the most commonly implicated substances for all problem areas (i.e. social, legal, risk and responsibility).
- Approximately one-third (36%) of the current sample reported experiencing a mental health problem in the preceding six-months. Among these, participants, depression (78%) and anxiety (61%) were those most commonly reported issues.
- Participants completed the K10. The most common category participants fell in was 'moderate distress' (37%), followed by 'low distress' (31%), 'high distress' (24%) and then 'very high distress' (8%).

7. RISK BEHAVIOURS

7.1. Injecting risk behaviours

As presented in Table 34, 10% of participants reported injecting a drug in their lifetime (same proportion as in 2012) and only 5% reported injecting a drug recently (7% in 2012). The average age participants reported first injecting a drug was 15 years old (median=15, range 12-17).

Table 34: Injecting risk behaviours, 2013

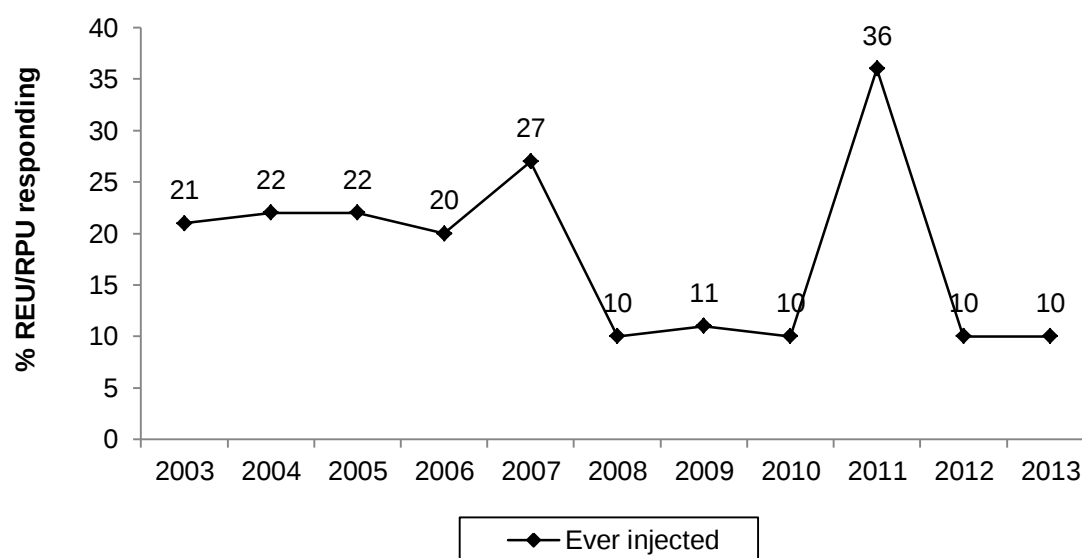
(%)	2013 N=100
Ever injected	10
Mean age first injected any drug*	15
Injected in the last six months	5

Source: WA EDRS interviews, 2003-2013

*Among those who had injected

As presented in Figure 45, with the exception of 2011 (which had a disproportionate representation, attributed to substantial difficulties during the recruitment process), rates of injecting drug use have remained similar since 2008.

Figure 45: History of reporting having ever injected drugs amongst WA REU/RPU samples, 2003-2013



Source: WA EDRS interviews, 2003-2013

7.1.1. Recent injectors

Of those who reported injecting in the preceding six months (n=5), most were male (n=4) and their average age was 18 years (range 16-22). The median number of days they had injected in the preceding six month period was 72 (range 72-180), which equates to approximately three times per week. 'Speed' was reported as the last drug injected by all participants reporting recent injecting. Data for recent injecting drug use patterns is presented in Table 35. Due to the extremely small sample size of recent injectors (n=5), data for this section should be interpreted with caution

Table 35: Recent injecting drug use patterns, 2013

(%)	2013
Median age	18
Median number of times injected in last 6 months	72 (12-180)
Last drug injected	
Speed	100
Injected while under the influence/coming down*	
Neither	40
Under the influence	40
Coming down	0
both	20
Median number of times injected while under the influence/coming down	12 (3-89)

Source: WA EDRS REU/RPU interviews, 2013

* Of those who had injected

Contexts of injecting

A needle and syringe program (NSP) was the most commonly reported source \ from where needles were obtained (60%, n=3). The majority (60%, n=3) reported injecting in the presence of 'close friends' and at a 'friend's home' the last time they injected. Again, due to the extremely small sample of recent injectors, these data should be interpreted with caution.

Table 36: Context and patterns of recent injection, 2013

(%)	2013 (n=5)
Needle source*	
NSP	60
Chemist	20
Friend	20
Dealer	40
People usually inject with*	
Close friends	60
No one	0
Locations injected in past six months	
Own home	20
Friend's home	60
Dealer's home	20

Source: WA EDRS REU/RPU interviews, 2013

*Multiple responses allowed

Sharing of needles/syringes and other injecting equipment

Of those who had recently injected (n=5), only one participant reported using a needle after someone else had already used it; however, most (n=4) reported using equipment after someone else. The most commonly reported equipment used after someone else was 'filters' (n=3), followed by 'spoons or mixing containers' (n=2), and then 'tourniquets' and 'water' (each n=1). Again, due to the extremely small sample of recent injectors, interpretation of this data should be done with caution.

7.2. Sexual health check ups

In 2013, the EDRS included questions on sexual health check-ups, including whether participants had ever had one, whether they had one recently and whether they had ever been diagnosed with a sexually transmitted infection (STI). Due to problems in the interview schedule, only a small sample of participants were asked these questions in WA (n=5) and nationally, therefore, this section was excluded from analysis.

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 anyone that a participant had had penetrative sex with who was not a regular partner. Given the sensitive nature of these questions, participants were given the option of self-completing this section of the questionnaire.

7.3.1. Recent sexual activity

Participants were asked about the number of casual partners they had engaged in penetrative sex with in the preceding six months. Of the current sample, more than half (59%) reported engaging in casual penetrative sex with at least one person in the past six months. The most common number of casual partners in the preceding six month period was two (22%), followed by three to five (15%), one (12%), six to 10 (9%) and then 10 or more (1%).

7.3.2. Protective barriers during sex while sober

Of those who had recently engaged in penetrative sex with a casual partner while sober (n=59), almost half (44%, n=26) reported using no protective barrier last time, 42% (n=25) reporting using a barrier and 14% (n=8) reported that the question was not applicable as they had not been sober on any causal sex occasions. Participants reported various reasons as to why no barrier was used. The greatest proportion (25%, n=7) reported that their partner was 'using the contraceptive pill' (42%, n=11), this was followed by 'it wasn't mentioned' and 'we agreed not to use' (each 19%, n=5), 'my partner didn't wish to use' (12%, n=3), and then 'I didn't wish to use' and 'lack of availability' (4%, n=1).

A breakdown of this data is presented in Table 37.

Table 37: Recent sexual activity, 2013

(%)	2013
Number of casual sexual partners	(N=100)
No casual partner	41
1 person	12
2 people	22
3-5 people	15
6-10 people	9
10 or more	1
Use of protection during sex with casual partner while sober*	(n=59)
Yes	42
No	44
Not applicable	14

Source: WA EDRS REU/RPU interviews, 2013

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

7.3.3. Casual sex while under the influence

Of those participants who had engaged in casual sex in the preceding six months (n=59), the majority (88%, n=51) reported having done so whilst under the influence of alcohol or other drugs. This equates to 51% of the overall sample, compared to 66% in 2012. Participants were asked how many times they had engaged in sex while under the influence in the preceding six month period. The most commonly reported number of occasions was 'three to five times' (54%). The most commonly reported drugs used on these occasions were 'alcohol' (63%, n=30), 'ecstasy' (60%, n=29), and 'cannabis' (33%, n=16).

7.3.4. Protective barriers during casual sex while under the influence

Participants were also asked whether a protective barrier (i.e. condoms or dams) had been used with the last casual sex partner whilst under the influence of alcohol and/or other drugs. Of those commenting (n=50), over half reported that they had not used a barrier (56%, n=28). Participants reported various reasons as to why no barrier was used. The greatest proportion (25%, n=7) reported that their partner was 'using the contraceptive pill' (39%, n=11), this was followed by 'it wasn't mentioned' (25%, n=7), 'lack of availability' and 'we agreed not to use' (each 14%, n=4) and then 'I didn't wish to use' (7%, n=2).

A complete breakdown of this data is presented in Table 38.

Table 38: Casual sex while under the influence, 2013

	2013 (N=100)
Penetrative casual sex (%)	59
Penetrative casual sex while on drugs* (%)	51
<i>Of those who had penetrative casual sex under the influence of drugs</i>	(n=51)
Number of times (%)	
Once	6
Twice	13
3-5 times	54
6-10 times	10
Ten +	17
Drug used (%)	
Ecstasy	60
Cannabis	33
Alcohol	63
Speed	6
Crystal	2
Cocaine	4
Pharmaceutical stimulants	10
LSD	4
Mushrooms	2
Nitrous oxide	4
Heroin	0
Benzodiazepines	4
Other opiates	0
Use of protection (%)	
Yes	44
No	56

Source: WA EDRS REU/RPU interviews, 2013

Key expert comments

- A KE, who worked in nightclub security, reported that it was common to observe young females who appeared to be under the influence of ecstasy and/or alcohol, leaving the venue with males who they often appeared to have only just met. The KE expressed concern that while intoxicated their inhibitions might be lowered, and that this could be making them more vulnerable to engaging in sexual practices while under the influence.

7.4. Driving risk behaviour

In 2013, the majority of the sample (82%) reported driving a car in the last six months. Of these, approximately one-third (37%, n=30) reported that they had driven while over the legal alcohol limit. This was not significantly different to 2012 findings. The median number of times participants had driven over the legal alcohol limit in the past six months was eight times (range 1-96) (i.e. more than monthly), compared to three in 2012. Of the 30 participants who had driven while over the limit, 13 participants (43%) only had their provisional licence and one participant (3%) only had his/her learner's license. Of all those who had driven recently (n=82), 40% (n=33) reported that they had been breathalysed in the last six months and 6% (n=2) reported that they were over the legal blood alcohol limit when tested.

Participants were also asked if they had driven after taking an illicit drug in the past six months. Of those who had driven recently (n=82), two-thirds (66%, n=54) reported that they had. This was not significantly different to 2012 findings. The median number of times they had driven after taking an illicit drug in the past six months was five times (range 1-96) (i.e. less than monthly), compared to three times in 2012. The median number of hours after which participants reported driving after consuming drugs was 3 hours (range 1-15), comparable to 2.5 in 2012. The most commonly reported drugs used prior to driving were cannabis (67%, n=36), ecstasy (59%, n=32), LSD (17%, n=9) and pharmaceutical stimulants (15%, n=8). A complete breakdown of this data is presented in Table 39.

Table 39: Drug driving in the last six months, 2009-2013

	2009 N=100	2010 N=100	2011 N=28	2012 N=90	2013 N=100
Driven a car in last 6 months (%)	80	84	61	91	82
Driven under influence of alcohol[#] (%)	69	61	77	64	-
Driven while over the limit of alcohol* (%)	75	73	77	52	37
Driven soon after taking a drug[#] (%)	75	58	53	55	66
<i>Of those who had driven soon after</i>	(n=60)	(n=49)	(n=9)	(n=45)	(n=54)
Drug (%)					
Ecstasy	72	71	44	56	59
Cannabis	63	55	56	64	67
Speed	12	18	0	0	2
Crystal	12	18	22	24	6
LSD	10	6	22	7	17
Pharmaceutical stimulants	7	4	22	24	15
Cocaine	7	16	0	2	2
Benzodiazepines	3	0	0	2	2
Mushrooms	2	0	0	4	4
Nitrous oxide	2	2	11	0	2
Heroin	0	0	11	0	0
Base	0	0	0	0	0
Other opiates	-	2	0	2	0
Salvia	-	-	11	0	0

Source: WA EDRS REU/RPU interviews, 2009-2013

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

- Data not collected

Participants who reported driving after illicit drug use (n=54) were asked about their perceived level of impairment. As in 2012, perceptions of impairment were mixed in the current sample. The greatest proportion of those who had driven after taking an illicit drug reported that their driving ability was 'slightly impaired' (43%, n=23), but a similar proportion (37%, n=20) reported that there was 'no impact'. There were also some (15%, n=8) who reported that their driving ability was 'slightly improved' and a small proportion (6%, n=3) who reported being 'quite impaired'.

Drug driving testing was introduced in WA in October 2007 to allow police to randomly stop motorists and motorcyclists and test them for illicit drug use. Since the 2008 EDRS, participants have been asked if they have ever been tested for drug driving by police roadside drug testing. As in recent years, only a small number of those who had driven in the preceding six months (9%, n=7) reported having ever been drug tested and only one participant reported being tested on more than one occasion. All drug tests were reported to have returned a negative result.

7.5. Bingeing behaviour

Bingeing is defined as the use of any stimulants or related drugs for 48 hours or more continuously without sleep. In the current sample, more than one-third (38%) reported bingeing on ERD in the past six months, comparable to 37% in 2012. Bingeing occurred on a median of 3 occasions (range 1-90) during the six-month period, comparable to two occasions in 2012. The median length of participants' longest binge was 72 hours (i.e. three days) (range 48-168), compared to 50 hours in 2012.

The most common drug implicated in bingeing was 'ecstasy' (87%, n=33), followed by alcohol (>5 standard drinks) (79%, n=30), tobacco (66%, n=25) and cannabis (66%, n=25). Interestingly, a range of NPS were also implicated in binges, including 2C-I, 2C-B, bk-MDMA (Methylone) and Methoxetamine (MXE).

A complete breakdown of this data is presented in Table 40.

Table 40: Bingeing behaviour, 2013

(%)	2013
Recent binge	38
Median amount of times*	3
Median length of binge* (hours)	72
Drugs implicated in binge*	(n=38)
Ecstasy	87
Alcohol (>5 standard drinks)	79
Alcohol (<5 standard drinks)	11
Cannabis	66
Pharmaceutical stimulants	37
Speed	21
Crystal meth	34
Cocaine	16
LSD	24
Ketamine	3
GHB	5
Amyl nitrate	3
Nitrous oxide	11
Tobacco	66
Energy drinks	47
Benzodiazepines	16
OTC codeine	3
Mushrooms	5
2C-x	11
DMT	3
MXE	3
Chloroethane	3

Source: WA EDRS REU/RPU interviews, 2013

*Of those who had binged on EDR in the last 6 months

7.6. The Alcohol Use Disorders Identification Test (AUDIT)

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 (Saunders et al. 1993). 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).

The AUDIT was completed by all participants in 2013. The mean AUDIT score was 14 (range 0-31). The majority (85%) scored higher than the cut off of eight, indicating likelihood of hazardous or harmful alcohol use.

The total AUDIT scores place participants into one of four 'zones' or risk levels. From the current sample, 15% scored in Zone 1 (low-risk drinking or abstinence), 37% scored in Zone 2 (alcohol use in excess of low risk guidelines), 17% scored in Zone 3 (harmful or hazardous drinking) and 21% scored in Zone 4 (those in this zone may be referred to evaluation and possible treatment for alcohol dependence).

An independent-samples *t*-test was conducted to compare AUDIT scores by gender. There was a significant difference in scores between males ($M=15$, $SD=7$) and females ($M=12$, $DS=7$); $t(97)=-2.1$, $p = 0.04$. This suggests that male drinking scores tended to indicate higher risk drinking.

7.7. 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 have 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 2013, all 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).

As presented in Table 41, 13% (n=13) of the current sample scored above the dependency cut off of 4, with almost equal proportions of males 46% (n=6) and females 54% (n=7). Therefore, the majority of the sample (87%, n=87) did not score high enough to be considered dependent on ecstasy. In 2012, only 4% (n=4) scored above the dependency cut off.

Table 41: Ecstasy dependence, 2013

(%)	2013 (N=100)
Ecstasy SDS score	
Zero	36
Four or more (dependency cut off)	13
Gender*	(n=13)
Male	6
Female	7

Source: WA EDRS REU/RPU interviews, 2013

*Of those with score of four or more (dependency cut off)

Of the overall sample (n=100), 64% reported that they never/almost never thought their use of ecstasy was out of control in the past six months, 83% reported they never/almost never wished they could stop, and 76% reported that they would not find it difficult to stop or go without ecstasy.

7.8. Summary of risk behaviour

- One-tenth (10%) of the sample had injected a drug at some point in their lifetime and 5% had done so recently.
- Speed was reported as the last drug injected in 100% of cases.
- Among the five recent injectors, there was only one report of using a needle or syringe after someone else.
- Penetrative sex with a casual partner in preceding six months was reported by three-fifths of the sample (59%), and this occurred most commonly 3-5 times during the six-month period.
- Of those who had engaged in recent casual sex, most (88%) had done so while under the influence of alcohol and/or other drugs. The most commonly implicated drugs used were alcohol (63%), ecstasy (60%) and cannabis (33%). Of these participants, more than half (56%) reported that they did not use a protective barrier with their last casual partner. The main reason was 'using contraceptive pill' (25%).
- Of those participants who had driven a car in the last six months (82%), more than one-third (37%) had done so while over the legal alcohol limit and two-thirds (66%) had done so after taking an illicit drug. The most commonly reported illicit drugs taken prior to driving were cannabis (67%) and ecstasy (59%).
- Bingeing on ERD was reported by more than one-third of the sample (38%). The most commonly reported drugs implicated in bingeing were ecstasy (87%), alcohol (>5 standard drinks) (66%) and cannabis (66%).
- Participants completed the Alcohol Use Disorders Identification Test (AUDIT). The majority of the group (85%) fell in the 'hazardous or harmful drinking' range. An independent-samples *t*-test found that male drinking scores tended to indicate higher risk drinking than females in the sample.
- In 2013, 13% of the sample scored high enough on the SDS scale to be considered dependent on ecstasy.

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

8.1. Reports of criminal activity among REU/RPU

Table 42 presents the proportion of participants reporting criminal activity in the month preceding the interview across survey years. Rates have remained similar across samples. In 2013, approximately two-fifths of the sample (42%) reported criminal activity in the past month, comparable to 29% in 2012. The most commonly reported crime in this period was 'drug dealing' and 'property crime' (each 25%, n=25). While 'drug dealing' has consistently been the most commonly reported crime, 'property crime' appears to be seeing a gradual increase across survey years, with 2013 representing the highest rate recorded since the WA EDRS commenced in 2003. Consistent with previous years, only a very small number reported engaging in 'fraud' (2%) or 'violent crime' (3%). There were no significant differences in rates of reported crime between 2012 and 2013.

Of those who reported 'drug dealing' (n=25), most (60%, n=15) reported doing so less than once a week and one-quarter (24%, n=6) reported doing so 'daily'. The rest reported doing so 'once a week' or 'more than once a week' (each 8%, n=2). Similarly, most of those reporting 'property crime' (60%, n=15) did so less than once a week and 16% (n=4) reported doing so 'daily'. The rest reported doing so 'once a week' or 'more than once a week' (each 12%, n=3). Those reporting 'fraud' reported doing so 'less than once a week', as did those reporting 'violent crime'.

In 2013, 13% reported being arrested in the preceding 12 months, compared to 11% in 2012. Reasons for arrest varied; the most common reason reported was 'alcohol and driving' (39%, n=5), followed by 'property crime' (31%, n=4), 'drunk and disorderly' (23%, n=3), 'violent crime' (15%, n=2) and then 'drugs and driving' and 'other driving offence' (each 7%, n=1). Only three participants reported having ever been to prison and reasons for incarceration were not asked about.

Table 42: Criminal activity in the past month, 2003-2013

Criminal activity in the last month	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	2012 N=90	2013 N=100
Any crime (%)	38	30	32	26	39	31	38	35	39	29	42
Drug dealing (%)	36	25	24	23	31	24	32	24	21	18	25
Property crime (%)	5	10	9	9	16	7	6	13	11	16	25
Fraud (%)	2	4	6	2	4	2	0	2	7	2	2
Violent crime (%)	0	4	2	1	5	3	3	3	7	1	3
Arrested last 12 months (%)	9	13	14	14	12	5	19	13	18	11	13

Source: WA PDI/EDRS REU/RPU interviews, 2003-2013

Table 43 presents the number of consumer and provider arrests for amphetamine-type stimulants (ATS), cannabis, cocaine and hallucinogens in WA from 2004 to 2012 (most recent data available). ATS include amphetamine, methylamphetamine, crystalline methylamphetamine, and phenethylamines such as 3,4-methylenedioxymethamphetamine (MDMA), 3,4-methylenedioxyethylamphetamine (MDEA), 3,4-methylenedioxyamphetamine (MDA), dimethoxyamphetamine (DMA) and paramethoxyamphetamine (PMA).

Data obtained from the Australian Crime Commission (2013) indicate that, in WA in 2011/12, there were a total of 10,250 drug-related consumer and provider arrests, compared to 8,666 in 2010/11. Broken down, there were a total 7,119 drug related consumer arrests and 1,547 provider arrests. The most commonly implicated drug for both types of arrest was cannabis, followed by ATS. Both consumer and provider arrests increased in this period, and with the exception of cocaine, all drug classes also increased. The most notable increase for drug classes was ATS, which increased from 1,587 in 2010/11 to 2,347 in 2011/12.

When looking at arrest totals on a national level, in 2011/2012, WA had the fourth highest number of consumer arrests (7,629), following Queensland (23,065), NSW (17,432) and Victoria (12,736). WA also had the fourth highest number of provider arrests (2,621), following Victoria (3,819), NSW (3,514) and Queensland (3,398).

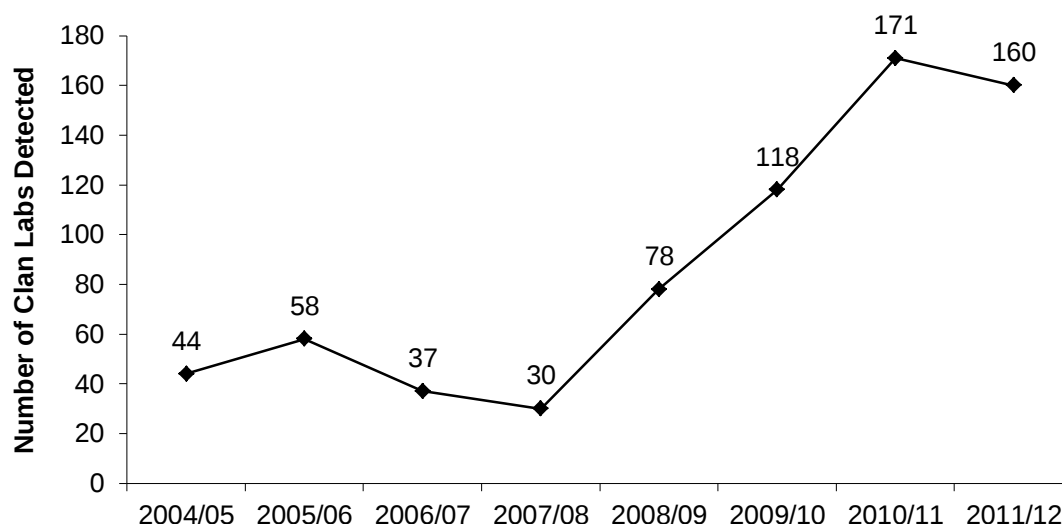
Table 43: Consumer and provider arrests by drug type, 2011/2012

Drug	Consumer Arrests	Provider Arrests	Total
ATS	1,616 (69%)	731 (31%)	2,347 (100%)
Cannabis	4,117 (76%)	1,304 (24%)	5,421 (100%)
Cocaine	23 (55%)	19 (45%)	42 (100%)
Hallucinogens	58 (64%)	33 (36%)	91 (100%)
Total	7,629 (74%)	2,621 (26%)	10,250 (100%)

Source: ACC, 2013

As presented in Figure 46, clandestine laboratory or 'clan lab' detections have been steadily increasing in WA since 2007/08; however, this trend did not continue into the most recent reporting period. In 2011/12 there were 160 clandestine laboratories detected in WA, representing a slight decrease from 2010/11 which saw 171 detections. Nationally, the WA figure is exceeded only by Queensland with 379 detections. Of these 160 labs, almost all (96%, n=156) were manufacturing ATS other than MDMA. With the exception of one, all labs detected in this period were using the Nazi/Birch method of production (involving red phosphorous and liquid ammonia) (Australian Crime Commission, 2013).

Figure 46: Number of clandestine (meth)amphetamine laboratories detected by WA police 2004/05-2011/12



Source: ACC, 2006-2013

Key expert comments

- Two KE, from the law enforcement sector, reported that improvised manufacturing labs or ‘clan labs’ continued to present a variety of problems and potential hazards to manufacturers, police and the community. Both KE reported that in WA, methamphetamine manufacture continued to be exclusively undertaken using the “NAZI method”, and expressed concern over the volatile nature of the chemicals involved resulting in risk of fires and explosions in these labs. The KE reported that this posed significant dangers when dismantling the labs, therefore, this process must be undertaken carefully and slowly. It was reported that ‘clan labs’ drain valuable law enforcement resources which could be directed elsewhere.
- Consistent with recent years, one KE, who worked in drug analysis, reported that most clandestine laboratories detected were small operations made up of “small user groups” making only a few grams at a time. In contrast to this, another KE, from the law enforcement sector, reported that when they had been called out to investigate labs, there were often families living there with young children, and that these labs, therefore, presented a risk to the families and surrounding neighbours.
- A KE, from the law enforcement sector, reported that methamphetamine create a lot a crime, crime to obtain precursor chemicals and crime to fund use. The KE reported that methamphetamine manufacture also presents problems for policing pseudoephedrine, and this used up valuable police resources. Another KE, who worked in drug treatment, reported that a real time database needed to be implemented in pharmacies, but this was likely to be an expensive initiative.

8.2. Summary of law enforcement-related issues

- Involvement in any criminal activity was reported by two-fifths (42%) of the current sample.
- The most commonly reported crimes were 'drug dealing' and 'property crime' (each 25%).
- Thirteen participants had been arrested in the preceding 12 months. Alcohol and driving was the most commonly reported cause of arrest.
- During 2011/12, there were 7,629 drug-related consumer arrests and 2,621 provider arrests. The most commonly implicated drug for both arrest types was cannabis.
- There were 160 clandestine laboratories detected during 2011/12, compared with 171 the previous year. The majority were producing ATS.
- KE from law enforcement expressed concerns over the risks of dismantling clandestine methamphetamine laboratories, and the associated drain on police resources as lab detections continued to remain high.

9. SPECIAL TOPICS OF INTEREST

9.1. Exposure to Injecting Module

Interviews with KE, conducted as part of the 2012 EDRS, identified that there could be an increasing number of young people injecting as a route of administration. KE reported that they have noticed an increasing number of young people presenting to emergency services with injection-related problems, indicating that in addition to an increase in young people injecting, there could be a lack of awareness around safe injecting practices. While rates of injecting drug use among EDRS samples have traditionally been extremely low, identifying risk of injecting could have important harm reduction implications, particularly in relation to education around blood-borne viruses and safe injecting practices.

The aim of this module was to investigate the risk of injecting drug use among REU/RPU by: (a) identifying the level of exposure to injecting; (b) investigating attitudes toward the practice of injecting drugs; and (c) investigating beliefs around the likelihood of injecting a drug in the future.

In relation to exposure to injecting, more than half of the sample (55%) reported knowing friends or acquaintances that had injected an illicit drug in their lifetime. Those who knew of a person/people who had injected previously (n=55), were asked in the last 12 months, what relationship they had with the people that had injected. The majority reported that their relationship to this person/people was a 'friend or acquaintance' (76%), while some reported they were a 'non-partner family member' (11%) or that recently (past 12 months) 'nobody' they knew had recently injected a drug (24%). They were asked if they had ever been directly exposed to the injecting practice (i.e. in the vicinity of the injecting practice taking place) to which almost half (46%) answered positively.

All participants (N=100) were asked if they'd been offered drugs to inject in the past 12 months and 18% reported that they had. Participants were also asked if they had ever seriously considered injecting a drug and only 3% had. The most commonly reported reason for not injecting a drug was 'do not use drugs that are injectable' (14%), 'fear of needles', 'concerns about dependence' and 'concerns about BBV' (each 13%). The most commonly reported reasons for considering injecting a drug was 'to get high/have fun' (13%) or 'curiosity' (8%) or 'to have a stronger drug effect' (7%); however, the majority (82%) reported that they 'would not consider' ever injecting a drug. Finally participants were asked to rate on a scale of 1-10 (where 1 means 'extremely unlikely' and '10' means 'extremely likely'), how likely they would be to inject a drug in the future, to which the overwhelming majority (82%) endorsed '1' which was 'extremely unlikely'. Only a few participants (3%) reported that they would be 'extremely likely' to inject a drug in the future.

A complete breakdown of data for exposure to injecting is presented in Table 44 and Table 45.

Table 44: Exposure to injecting, 2013

(%)	2013
What proportion of your friends/acquaintances have ever injected a drug illicitly?*	
Most	3
About half	2
A few	50
None	44
I don't know	1
Of those who know someone who has injected, who has injected (past 12 months)?*	n=55
A friend/acquaintance	76
A (non-partner) family member	11
Partner	0
No one	24
Of those who know someone who has injected, have they ever injected around you?	n=55
Yes	46
Have you been offered drugs to inject in the past 12-months?	n=100
Yes	18
Have you ever seriously considered injecting a drug?	n=100
Yes	3
No	87
I have already injected a drug	10

Source: WA EDRS interviews, 2013

*Multiple response options can total more than 100%

Table 45: Reasons for considering injecting as an ROA, 2013

(%)	2013
What would be your main reason for not injecting a drug?	
Fear of needles	13
Not my preferred administration	5
Don't use drugs that are injectable	14
Concerns about dependence	13
Social stigma associated with injecting	7
Concerns about BBV	13
I will continue to inject no matter what	9
Concern about injection related injury	2
I don't know how to inject myself	1
No access to injecting equipment	1
Did not enjoy/bad experience	1
Other	21
What would be your main reason for injecting a drug?	
Would not consider	59
Curiosity	8
To have stronger drug effect	7
Get high/have fun	13
Peer pressure/influence	4
Family use	1
Opportunity presented itself	0
Preferred route of administration	1
Other	7

Source: WA EDRS interviews, 2013

9.2. NPS Health Module

The past 10 years has seen the emergence of a range of substances that mimic illicit stimulants and hallucinogens such as amphetamines, ecstasy and LSD – often referred to collectively as ‘new psychoactive substances’ (NPS). As they are designed to be structurally similar to their banned counterparts, without containing controlled substances, they do not fall readily under legislative control and some have been marketed as ‘legal highs’. The promotion of these substances as ‘legal highs’, together with the fact that they can be bought over the Internet, over the counter, and in shop fronts in Australia has made them accessible to people who may not have used illicit drugs previously, and also gives the illusion of safety. However, the safety or otherwise of these substances is unclear, and there is little evidence on which to base public policies relating to these substances. Indeed, the health and social consequences of these drugs remain poorly understood in Australia, and internationally. This module has therefore been included to improve our knowledge and understanding of the use and effects of four of the most commonly used NPS: mephedrone, 2C-B, methylone and MDPV.

Of the current sample, there was only a very small proportion reporting the use of these NPS in the preceding six months, it is, therefore, important to note that findings presented for this module should be interpreted with extreme caution. Only one participant reported recent mephedrone use (1%), eight reported recent 2C-B use (8%), no participants reported recent MDPV use (0%) and four reported methylone use (4%). These participants were asked if they purchased the particular NPS in a pre-packaged brand, of which all answered negatively. Given the extremely small sample sizes for mephedrone, methylone and MDPV (< n=5), only 2C-B data has been included the following analyses.

As 2C-family substances are a new growing class of NPS, particular motivations to use them were assessed and rated in terms of their influence. For example, on a scale of 0 to 10 where 0 is no influence at all and 10 is maximum influence, how motivating have the following factors been when you have taken 2C-B. Results are presented in percentages in Table 46 for those that answered it had ‘some’ influence i.e. rated the motivation factor greater than zero. For 2C-B, the results would suggest that the value for money, the comparative high, and the availability (each 38%, n=3) were the most influential factors when considering use. A breakdown of this data is presented in Table 46.

Table 46: Factors that had some influence (rated greater than '0') on whether EDRS participants used 2C-B, 2013

(%)	2C-B n=8
Legal to buy it	0
Easy to buy on the internet and delivered to my home	0
High level of purity compared to traditional illegal stimulants	0
It was good value for money	38
Better high compared to traditional illegal stimulants	38
Fewer side effects compared to traditional illegal stimulants	13
Single dose doesn't last too long	0
No other drug available to me at the time so I bought it	38

Source: WA EDRS interviews, 2013

Table 47: Level of tolerance and properties of addiction of 2C-B, 2013

(%)	2C-B n=8
Usual dose has not had the same effect as when you first started	14 (n=1)
Taken (drug) in larger amounts than intended	0
Persistent desire or strong urge to take (drug)	0
Continued to take (drug) even though you've had physical or psychological problems	0
Spent a great deal of time getting (drug) or taking it or recovering	0
Have you given up important social, occupational or recreational activities because of (drug)	0
Have you been concerned about your use of (drug)	0
Have you taken (drug) or another stimulant to help relieve drug withdrawals	0
Wanted to cut down/take (drug) less often but not successful	0
Friends and family have expressed concern about your use of (drug)	0

Source: WA EDRS interviews, 2013

Prevalence and frequency of drug effects were investigated in relation to mephedrone, 2C-B, methylone and MDPV. Again, due to small numbers reporting use of mephedrone, methylone and MDPV, only WA figures for 2C-B were reported. The effects most commonly reported to have been experienced most of the time included 'increased energy' (63%), 'urge to talk', 'urge to move' and 'no appetite for food' (each 50%). A complete breakdown of this data is presented in Table 48. Again,

it should be emphasised that due to extremely small numbers here, findings should be interpreted with extreme caution.

Table 48: Effects experienced by 2C-B, 2013

(%)	2C-B n=8			
Effect	Never	Once	Sometimes	Most of the time
Euphoria	0	38	25	38
Increased Energy	13	25	0	63
Improved concentration	50	38	0	13
Empathy with others	50	13	0	38
Urge to talk	25	13	13	50
Urge to move	13	0	38	50
Increased sexual desire	63	0	25	13
Restless or anxious	50	13	38	0
Angry or aggressive	100	0	0	0
Agitated	50	25	25	0
No appetite for food	25	0	25	50
You were forgetting things	63	13	13	13
Panicky	88	0	13	0
Blurred vision	38	25	38	0
Seeing things not there	25	13	38	25
Hearing things not there	63	13	13	13
Body sweating	50	0	38	13
Overheating	75	13	13	0
Heart racing or erratic	75	25	0	0
Shortness of breath	63	13	25	0
Headache	100	0	0	0
Chest pain	100	0	0	0
Clenching jaw, grinding teeth	13	13	50	25
Shaky hands, fingers	38	38	13	13
Fingers/toes were cold or numb	88	0	13	0
Skin discolouration (red/blue)	88	13	0	0
Skin rash	100	0	0	0
Vomiting	100	0	0	0
Headache	100	0	0	0
Hard to sleep	38	13	13	38

Source: WA EDRS interviews, 2013

If participants reported that they had experienced a particular effect, they were asked the level of intensity for this experience, whether it was 'mild', 'moderate' or 'intense'. A breakdown of this data is presented in Table 49. Again, these findings should be interpreted with extreme caution.

Table 49: Intensity of effects experienced by 2C-B, 2013

(%)	2C-B (n=8)		
	Mild	Moderate	Intense
Euphoria	38	25	38
Increased Energy	13	25	63
Improved concentration	75	25	0
Empathy with others	50	13	38
Urge to talk	0	50	50
Urge to move	13	25	63
Increased sexual desire	0	67	33
Restless or anxious		75	25
Angry or aggressive	-	-	-
Agitated	75	25	0
No appetite for food	33	17	50
You were forgetting things	0	33	67
Panicky	0	100	0
Blurred vision	80	20	0
Seeing things not there	0	50	50
Hearing things not there	33	33	33
Body sweating	50	50	0
Overheating	50	50	0
Heart racing or erratic	100	0	0
Shortness of breath	67	33	0
Headache	-	-	-
Chest pain	-	-	-
Clenching jaw, grinding teeth	29	29	43
Shaky hands, fingers	40	40	20
Fingers/toes were cold or numb	0	0	100
Skin discolouration (red/blue)	-	-	-
Skin rash	-	-	-
Vomiting	-	-	-
Headache	-	-	-
Hard to sleep	20	40	40

Source: WA EDRS interviews, 2013

9.3. Summary of special interest topics

- More than half of the sample (55%) reported that a friend/acquaintance had injected a drug illicitly; one-quarter (25%) reported that a friend/acquaintance had injected a drug in their presence, and 18% reported having been offered a drug to inject in last 12-months.
- The majority (87%) reported that they had not ever seriously considered injecting a drug illicitly, 10% had already injected and only 3% reported seriously considering it.
- There were only very small numbers reporting recent use of mephedrone, 2C-B, methylone and MDPV. Given the extremely small sample sizes for mephedrone, methylone and MDPV ($n < 5$), only 2C-B was included for analyses; however, this sample was also small ($n < 10$) and findings presented for this module should, therefore, be interpreted with extreme caution
- The main factors that appeared to influence the use of 2C-B included that it was 'good value for money', 'no other drug was available at the time' and it was a 'better high compared to traditional illegal stimulants'.
- The effects most commonly reported to have been experienced 'most of the time' included 'increased energy', 'urge to talk', 'urge to move' and 'no appetite for food'.

10. GENERAL TRENDS

Participants were asked what proportion of their friends had used ecstasy in the past six months. The most common response was that 'most' of their friends had used ecstasy in the past six months (40%); this was followed by 'about half' (27%), 'a few' (19%) and then 'all' (13%).

Participants were also asked if there was anything new happening in drug use among them or their friends in the past six months; around two-thirds (65%) reported that there was. There was a variety of comments related to ecstasy use, as well as comments related to other traditional drugs and new psychoactive substances. The main comments made in relation to ecstasy were that there had been an increase in the variety of pills that were available on the market (n=16) and that there had been a general increase in use (n=6). One participant reported that the current content of pills available was questionable, as 2C-B comes in pill form and could, therefore, be getting marketed and sold as ecstasy. There were some comments (n=3) that new pills available in Perth had more psychedelic/hallucinogenic effects. There were also several reports of an increase in the use of crystal methamphetamine (n=7) and the normalisation of crystal methamphetamine (n=2). Consistent with increasing reports of lifetime and recent 2C-I use, several participants also reported an increase in 2C-series drugs, including 2C-I, 25I-NBOMe and 2C-B. A few participants (n=3) also reported that some 2C drugs were being marketed and sold as LSD, as they had hallucinogenic effects and also came in tab form. There were several reports of an increase in DMT use (n=6) and reports that friends have been producing/synthesising their own DMT using Acacia and Wattle trees in WA (n=3). It was reported that information about extraction was freely available online. There were also several comments related to purchasing drugs online (n=8), with participants reporting an increase in this behaviour, as well as successful silk road purchases and increased awareness and openness to using online sites for obtaining drugs. There were also reports of a general increase in 'research/experimental' chemical use (n=3).

A breakdown of participant comments by category is presented in Table 50. Small numbers here necessitate caution in interpretation of these results.

Table 50: New issues reported, 2013

(%)	2013 N=67
Ecstasy	
Increase in ecstasy use	6
Increase in availability of crystal and powder forms of ecstasy	2
Increase in ecstasy availability	1
New types of ecstasy/increase in variety of ecstasy tablets available in the Perth market (i.e. new varieties of colours, logos, etc.)	16
Ecstasy pills questionable – 2C-B comes in pill form	1
Increase in pills sold as ecstasy, but with more psychedelic/hallucinogenic effects	3
Crystal methamphetamine	
Increase in crystal meth use	7
Normalisation of meth use	2
2C-series	
Increase in 2C-series drug use	8
2C-series drugs being marketed and sold as LSD	3
DMT	
Increase in DMT use	6
DMT being manufactured by friends as easy to produce	3
Other issues	
Increase in research chemical use	3
Increase in online purchases (e.g. Silk Road)	8

Source: WA EDRS interviews, 2013

11. REFERENCES

Andrews, G. & Slade, T. (2001). Interpreting scores on the KEsler psychological distress scale (K10), *Australian and New Zealand Journal of Public Health*, 25, 494-497.

Australian Bureau of Criminal Intelligence. (1999). *Australian Illicit Drug Report 1997-98*. ABCI: Canberra.

Australian Bureau of Criminal Intelligence. (2000). *Australian Illicit Drug Report 1998-99*. ABCI: Canberra.

Australian Bureau of Criminal Intelligence. (2001). *Australian Illicit Drug Report 1999-00*. ABCI: Canberra.

Australian Crime Commission. (2004). *Australian Illicit Drug Report 2002-03*. ACC: Canberra.

Australian Crime Commission. (2005). *Australian Illicit Drug Report 2003-04*. ACC: Canberra.

Australian Crime Commission. (2006). *Australian Illicit Drug Report 2004-05*. ACC: Canberra.

Australian Crime Commission. (2007) *Australian Illicit Drug Report 2005-06*. ACC: Canberra.

Australian Crime Commission. (2008) *Australian Illicit Drug Report 2006-07*. ACC: Canberra.

Australian Crime Commission. (2009) *Illicit Drug Data Report 2007-08*. ACC: Canberra.

Australian Crime Commission. (2010) *Illicit Drug Data Report 2008-09*. ACC: Canberra.

Australian Crime Commission. (2011) *Illicit Drug Data Report 2009-10*. ACC: Canberra.

Australian Crime Commission. (2012) *Illicit Drug Data Report 2010-11*. ACC: Canberra.

Australian Crime Commission. (2013) *Illicit Drug Data Report 2011-12*. ACC: Canberra.

Australian Institute of Health and Welfare. (2008). *2007 National Drug Strategy Household Survey: State and Territory Supplement*. AIHW: Canberra.

Australian Institute of Health and Welfare. (2011a). *2010 National Drug Strategy Household Survey: Detailed Findings*. AIHW: Canberra.

Australian Institute of Health and Welfare. (2011b). *Alcohol and Other Drug Treatment Services in Australia 2009-10: Report on the National Minimum Data Set*. AIHW: Canberra.

Babor, T. F. & Higgins-Biddle, J. C. (2000). Alcohol screening and brief intervention: Dissemination strategies for medical practice and public health. *Addiction*, 95(5), 677-686.

Babor, T. F., De La Fuente, J. R., Saunders, J., & Grant, M. (1992). *AUDIT: The Alcohol Use Disorder Identification Test. Guidelines for Use in Primary Health Care*. World Health Organization: Geneva.

Barnard, R. H. (1995). *Research Methods in Social Anthropology: Qualitative and Quantitative Approaches*. 2nd ed, Altamira Press, London.

Boys, A., Marsden, J. & Strang, J. (2001). Understanding reasons for drug use amongst young people: A functional perspective. *Health Education Research*, 16(4), 457-69.

Bruno, R., Gomez, R. & Matthews, A. (2011). Choosing a cut-off on the Severity of Dependence Scale for ecstasy use. *The Open Addiction Journal*, 4: 13-14.

Bruno, R., Matthews, A. J., Dunn, M., Alati, R., McIlwraith, F., Hickey, S., Burns, L. & Sindich, N. (2012). Emerging psychoactive substance use among regular ecstasy users in Australia. *Drug and Alcohol Dependence*, 124(1-2):19-25.

Bruns, J., Jr. & Hauser, W. A. (2003). The epidemiology of traumatic brain injury: A review. *Epilepsia*, 44: 2-10.

Caldicott, D. G. E., Bright, S. J. & Barratt, M. J. (2013). NBOME: A very different kettle of fish. *Medical Journal of Australia*, 199(5): 322-323.

Chin, M., Kreutzer, R. & Dyer, J. (1992). Acute poisoning from gamma-hydroxybutyrate overdose. *Annals of Emergency Medicine*, 31: 716-722.

Corrigan, J. D., Bogner, J. & Holloman, C. (2012). Lifetime history of traumatic brain injury among persons with substance use disorders. *Brain Injuries*, 26(2): 139-150.

Curran H. V. & Robjant, K. (2006). Eating attitudes, weight concerns and beliefs about drug effects in women who use ecstasy. *Journal of Psychopharmacology*. 20(3):425-31.

Darke, S., Cohen, J., Ross, J., Hando, J. & Hall, W. (1994). Transitions between routes of administration of regular amphetamine users. *Addiction*, 89; 1077-1083.

Dawe, S., Loxton, N. & Hides L et al. (2002). *Review of diagnostic screening instruments for alcohol and other drug use and other psychiatric disorders*. Commonwealth Department of Health & Ageing: Canberra.

Degenhardt, L., Darke, S. & Dillon, P. (2002). GHB use among Australians: Characteristics, use patterns and associated harm. *Drug and Alcohol Dependence*, 67(1): 89-94.

Dughiero, G., Schifano, F. & Forza, G. (2001). Personality dimensions and psychopathological profiles of ecstasy users. *Human Psychopharmacology*, 16(8): 635-639.

Furukawa, T. A., Kessler, R. C., Slade, T. & Andrews, G. (2003). The performance of the K6 and K10 screening scales for psychological distress in the Australian National Survey of Mental Health and Well-Being. *Psychological Medicine*, 33: 357-362.

Galloway, G., Frederick, S., Staggers, F., Gonzales, M., Stalcup, S. & Smith, D. (1997). Gamma-hydroxybutyrate: An emerging drug of abuse that causes physical dependency. *Addiction*, 92: 89-96.

Hando, J. & Hall, W. (1993). *Amphetamine Use Among Young Adults in Sydney, Australia*. Drug and Alcohol Directorate: Sydney.

Hando, J., Topp, L. & Hall, W. (1997). Amphetamine-related harms and treatment preferences of regular amphetamine users in Sydney, Australia. *Drug and Alcohol Dependence*, 46: 105-113.

Heatherton, T., Kozlowski, L., Frecher, R., Rickert, W. & Robinson, J. (1989). Measuring the heaviness of smoking: Using self-reported time to the first cigarette of the day and number of cigarettes smoked per day. *British Journal of Addiction*, 84: 791-799.

Kam, P. & Yoong, F. (1998). Gamma-hydroxybutyric acid: An emerging recreational drug. *Anaesthesia*, 53, 1,195-1,198.

Kelly, M. P., Johnson, C. T., Knoller, N., Drubach, D. A. & Winslow, M. M. (1997). Substance abuse, traumatic brain injury and neuropsychological outcome. *Brain Injuries*, 11(6): 391-402.

Kerlinger, F. N. (1986). *Foundations of Behavioural Research*. CBS Publishing Limited, Japan.

Lancaster, K., Ritter, A. & Stafford, J. (2012) Public opinion and drug policy in Australia: Engaging the 'affected community', *Drug and Alcohol Review*, DOI: 10.1111/j.1465-3362.2012.00497.x

Leventhal, G. (1983). Body image of drug and alcohol abusers. *International Journal of the Addictions*, 18(6): 791-804.

Macquarie Dictionary. Psychedelic (n.d.)-Retrieved 09/01/2013, from <<http://www.macquariedictionary.com.au/149.171.0.0.16@929FF976057802/-/p/dict/5ed.html>>.

Matthew-Simmons, F., Love, S. & Ritter, A. (2008). *A review of Australian public opinion surveys on illicit drugs*. DPMP Monograph Series No. 17. Sydney, National Drug and Alcohol Centre, University of New South Wales.

Merriam-Websters Medical Dictionary. Phenylethylamine- Retrieved 09/01/2013, from <<http://dictionary.reference.com/browse/Tryptamine>>

Merriam-Websters Medical Dictionary. Tryptamine Retrieved 09/01/2013, from <<http://dictionary.reference.com/browse/Tryptamine>>

- Morgan, M. J., McFie, L., Fleetwood, H. & Robinson, J. A. (2002). Ecstasy (MDMA): Are the psychological problems associated with its use reversed by prolonged absence? *Psychopharmacology (Berl)*, 159(3): 294-303.
- Myers, D. G. & Diener, E. (1996). The pursuit of happiness. *Scientific American*, 274(5): 70-72.
- Neale, A., Abraham, S. & Russell, J. (2009) 'Ice' use and eating disorders: A report of three cases. *International Journal of Eating Disorders*, 42(2): 188-91.
- Nicholson, K. & Balster, R. (2001). GHB: A new and novel drug of abuse. *Drug and Alcohol Dependence*, 63: 1-22.
- Nieri, T., Kulis, S., Keith, V. M. & Hurdle, D. (2005). Body image, acculturation, and substance abuse among boys and girls in the southwest. *American Journal of Drug and Alcohol Abuse*. 31(4): 617-39.
- ParKE, S. A., Saewyc, E. M., Cox, D. N. & MacKay, L. J. (2008). Relationship between body image and stimulant use among Canadian adolescents. *Journal of Adolescent Health*, 43:616-8.
- Parrott, A. C. (2000). Human research on MDMA (3, 4-methylenedioxymethamphetamine) neurotoxicity: Cognitive and behavioural indices of change. *Neuropsychobiology*, 42(1): 17-24.
- Parrott, A. C. (2006). MDMA in humans: Factors which affect the neuropsychobiological profiles of recreational ecstasy users, the integrative role of bioenergetic stress. *Journal of Psychopharmacology*, 20(2):147-163.
- Perke, I., Schofield, P. W., Butler, T. & Hollis, S. J. (2011). Traumatic brain injury rates and sequelae: A comparison of prisoners with a matched community sample in Australia. *Brain Injury*, 25(2): 131-141.
- Rainsford, C. & Lenton S. (2012). *Western Australian drug trends: Findings from the 2011 Illicit Drug Reporting System*, National Drug and Alcohol Research Centre: Sydney.
- Reinert, D. F. & Allen, J. P. (2002). The Alcohol Use Disorders Identification Test (AUDIT): A review of recent research. *Alcoholism: Clinical and Experimental Research*, 26(2), 272-279.
- Roxburgh, A. and Burns, L (2013). Drug-related hospital stays in Australia, 1993-2011. Sydney: National Drug and Alcohol Research Centre.
- Roxburgh, A. and Burns, L. (in press) Drug-related hospital stays in Australia, 1993-2012.
- Saunders, J. B., Aasland, O. G., Babor, T. F., De La Fuente, J. R. & Grant, M. (1993). Development of the Alcohol Use Disorders Identification Test (AUDIT): WHO collaborative project on early detection of persons with harmful alcohol consumption. *Addiction*, 88: 793-804.
- Seiden, L. S., Sobol, K. E. & Ricaurte, G. A. (1993). Amphetamine: effects on catecholamine systems and behaviour. *Annual Review Pharmacology and Toxicology*, 33: 639-674.

Solowij, N. Hall, W. & Lee, N. (1992). Recreational MDMA use in Sydney: A profile of ecstasy users and their experiences with the drug. *British Journal of Addiction*, 87: 1,161-1,172.

Tait, R. J., Anstey, K. J. & Butterworth, P. (2010). Incidence of self-reported brain injury and the relationship with substance abuse: findings from a longitudinal community survey. *BMC Public Health*, 10: 171.

Topp, L. & Churchill, A. (2002). *Australia's Dynamic Methamphetamine Markets, Drug Trends Bulletin*. National Drug and Alcohol Research Centre: Sydney.

Topp, L. & Mattick, R. (1997). Choosing a cut-off on the Severity of Dependence Scale (SDS) for amphetamine users. *Addiction*, 92(7): 839-845.

Topp, L., Hando, J., Degenhardt, L., Dillon, P., Roche, A. & Solowij, N. (1998). *Ecstasy Use in Australia*. National Drug and Alcohol Research Centre: Sydney.

Topp, L., Hando, J., Dillon, P., Roche, A. & Solowij, N. (2000). Ecstasy use in Australia: Patterns of use and associated harms. *Drug and Alcohol Dependence*, 55: 105-115.

Topp, L., Degenhardt, L., Kaye, S. & Darke, S. (2002). The emergence of potent forms of methamphetamine in Sydney, Australia: A case study of the IDRS as a strategic early warning system. *Drug and Alcohol Review*, 21(4): 341-348.

Ventegodt, S. & Merrick, J. (2003). Psychoactive drugs and quality of life. *The Scientific World Journal*, 3: 694-706.

Verheyden, S. L., Hadfield, J., Calin, T. & Curran, H. V. (2002). Sub-acute effects of MDMA (+/-3,4-methylenedioxymethamphetamine, 'ecstasy') on mood: Evidence of gender differences. *Psychopharmacology (Berlin)*, 161(1): 23-31.

Vicentic, A. & Jones, D. C. (2007). The CART (Cocaine- and Amphetamine-Regulated Transcript) System in Appetite and Drug Addiction. *Journal of Pharmacology and Experimental Therapeutics*. 320(2):499-5006.

Wardlaw, G. (1993). Supply reduction (law enforcement) strategies pertaining to illicit use of psychostimulants. In *Illicit Psychostimulant Use in Australia*, eds D. Burrows, B. Flaherty & M. MacAvoy. Australian Government Publishing Service: Canberra, pp 91-104.

Weathers, C. & Billingsley, D. (1982). Body image and sex-role stereotype as features of addiction in women. *International Journal of the Addictions*. 17(2): 343-7.