

Western Australia

J. Grigg and S. Lenton

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

NDARC Technical Report No. 106

WEST AUSTRALIAN TRENDS IN ECSTASY AND RELATED DRUG MARKETS 2012



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	iv
ABBREVIATIONS	vii
GLOSSARY	viii
EXECUTIVE SUMMARY	x
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	8
4.1. Drug use history and current drug use	8
4.2. Ecstasy use.....	13
4.3. Methamphetamine use	21
4.4. Cocaine use	29
4.5. Ketamine use	33
4.6. GHB use	35
4.7. LSD use	35
4.8. Cannabis use	40
4.9. Other drugs used.....	43
4.10. Emerging psychoactive substance (EPS) use	50
5. DRUG MARKET: PRICE, PURITY, AVAILABILITY AND SUPPLY ...	58
5.1. Ecstasy.....	58
5.2. Methamphetamine	66
5.3. Cocaine	75
5.4. Ketamine	79
5.5. GHB	79
5.6. LSD	80
5.7. Cannabis	84
6. HEALTH-RELATED TRENDS ASSOCIATED WITH ECSTASY AND RELATED DRUG USE.....	90
6.1. Overdose and drug-related fatalities	90
6.2. Help-seeking behaviour	93
6.3. Other self-reported problems	98

6.4.	Hospital admissions	98
6.5.	Mental health problems	100
6.6.	Summary of health-related trends	102
7.	RISK BEHAVIOURS	103
7.1.	Injecting risk behaviours	103
7.2.	Blood-borne viral infections (BBVI).....	105
7.3.	Sexual risk behaviour	106
7.4.	Driving risk behaviour	107
7.5.	Bingeing behaviour.....	109
7.6.	The Alcohol Use Disorders Identification Test (AUDIT)	109
7.7.	Summary of risk behaviour	110
8.	LAW ENFORCEMENT-RELATED TRENDS ASSOCIATED WITH ECSTASY AND RELATED DRUG USE	111
8.1.	Reports of criminal activity among REU/RPU	111
8.2.	REU/RPU's perceptions of police activity.....	113
8.3.	Summary of law enforcement-related issues	114
9.	SPECIAL TOPICS OF INTEREST	115
9.1.	Fagerstrom test for nicotine dependence.....	115
9.2.	Ecstasy dependence.....	116
9.3.	Policy	116
9.4.	Body Image Module	118
9.5.	Neurological History Module	120
9.6.	Summary of special interest topics.....	122
10.	GENERAL TRENDS	123
11.	REFERENCES	124

LIST OF TABLES

Table 1: Demographic characteristics of WA REU/RPU samples, 2003-2012.	7
Table 2: Lifetime and recent polydrug use of WA REU/RPU samples, 2003-2012	10
Table 3: Patterns of ecstasy use among REU/RPU, 2003-2012.....	15
Table 4: Patterns of methamphetamine powder (speed) use among REU/RPU, 2003-2012.....	23
Table 5: Patterns of crystal methamphetamine use among REU/RPU, 2003-2012	25
Table 6: Patterns of cocaine use among REU/RPU, 2003-2012.....	30
Table 7: Patterns of ketamine use among REU/RPU, 2003-2012	34
Table 8: Patterns of LSD use among REU/RPU, 2003-2012.....	37
Table 9: Patterns of cannabis use among REU/RPU, 2003-2012.....	40
Table 10: Comparison of recent illicit use of pharmaceutical stimulants reported by REU/RPU, 2012.....	45
Table 11: Emerging psychoactive substances	51
Table 12: Lifetime and recent use of emerging psychoactive substances (EPS), WA 2010-2012.....	55
Table 13: Price of ecstasy tablets purchased by REU/RPU and price variations, 2003-2012.....	59
Table 14: REU/RPU reports of ecstasy availability in the preceding six months, 2003-2012	62
Table 15: Patterns of purchasing ecstasy, 2005-2012	64
Table 16: Price of various methamphetamine forms purchased by REU/RPU, 2003-2012	66
Table 17: Price of cocaine purchased by REU/RPU, 2003-2012	75
Table 18: Price of LSD purchased by REU/RPU, 2003-2012	80
Table 19: Median reported price of cannabis ounce, 2006-2012	84
Table 20: Reported overdose on stimulant and depressant drugs, 2012	90
Table 21: Proportion of REU/RPU who accessed health services, 2012	94
Table 22: Self-reported drug-related problems and main drug implicated, 2012	98
Table 23: Injecting drug use history among REU/RPU injectors, 2012	104
Table 24: Drug use during casual sex in the preceding six months, 2012	106
Table 25: Drug driving in the last six months among REU/RPU, 2009-2012	108
Table 26: Criminal activity in the past month reported by REU/RPU, 2003-2012	111
Table 27: Consumer and provider arrests by drug type, 2010/2011	112
Table 28: Perceptions of police activity by REU/RPU, 2003-2012	113
Table 29: Fagerstrom test for nicotine dependence, 2012	115
Table 30: Support for measures to reduce problems associated with heroin, for legalisation of illicit drugs and the increase of penalties for illicit drugs, WA 2012.....	117
Table 31: Characteristics of REU/RPU who reported ever using IPS for weight management compared to those who did not, 2012	118
Table 32: Incidence of selected neurological conditions among REU/RPU, 2012	120
Table 33: Traumatic brain injury (TBI) among REU/RPU, 2012.....	121
Table 34: Effects of traumatic brain injury (TBI) among REU/RPU, 2012	122

LIST OF FIGURES

Figure 1: Last location where most time was spent intoxicated by ecstasy by REU/RPU, WA 2012.....	17
Figure 2: Prevalence of ecstasy use among the population aged 14 years and over in Western Australia, 2001-2010.....	18
Figure 3: Location of most recent powder and crystal methamphetamine use, 2012.....	26
Figure 4: Location of most recent cocaine use, 2012	31
Figure 5: Location of most recent LSD use, 2012.....	38
Figure 6: Location of most recent cannabis use, 2012	41
Figure 7: Research chemicals investigated by the EDRS.....	50
Figure 8: User reports of current ecstasy purity, 2003-2012.....	60
Figure 9: Median purity of phenethylamines seizures in WA by quarter, July 2002 to June 2011	61
Figure 10: People from whom ecstasy was last obtained, WA 2012	63
Figure 11: Locations at which ecstasy was last purchased, WA 2012.....	63
Figure 12: Recent changes in price of various methamphetamine forms purchased by REU/RPU who commented, 2012	67
Figure 13: User reports of current methamphetamine purity, 2012	68
Figure 14: User reports of changes in methamphetamine purity in the past six months, 2012.....	69
Figure 15: Median purity of methylamphetamine seizures analysed in WA by quarter, July 2002 to June 2011	69
Figure 16: Current availability of methamphetamine forms, 2012.....	70
Figure 17: Change in the availability of various forms of methamphetamine in the preceding six months, 2012	71
Figure 18: Person from whom methamphetamine powder and crystal was last obtained in the preceding six months, 2012.....	72
Figure 19: Last locations where methamphetamine was purchased in the preceding six months, 2012	72
Figure 20: User reports of recent changes in the price of cocaine, 2012.....	75
Figure 21: User reports of current purity of cocaine, 2012.....	76
Figure 22: User reports of changes in cocaine purity in the preceding six months, 2012	76
Figure 23: Median purity of cocaine seizures analysed in WA by quarter, July 2004 to June 2011	77
Figure 24: Current availability of cocaine, 2012.....	78
Figure 25: Changes in cocaine availability in the preceding six months, 2012.....	78
Figure 26: User reports of current LSD purity, 2012	80
Figure 27: User reports of changes in LSD purity in the past six months, 2012.....	81
Figure 28: Current availability of LSD, 2012	81
Figure 29: Changes in availability of LSD during the preceding six months, 2012.....	82
Figure 30: Person from whom LSD was last obtained, 2012	82
Figure 31: Locations from where LSD was last obtained, 2012.....	83
Figure 32: Recent changes in price of cannabis purchased by REU/RPU, 2012.....	85
Figure 33: User reports of current potency of cannabis, 2012	86

Figure 34: User reports of changes in cannabis potency in the past six months, 2012	86
Figure 35: Current availability of cannabis, 2012	87
Figure 36: Changes in cannabis availability in the preceding six months, 2012	87
Figure 37: Person from whom cannabis was last obtained in the preceding six months, 2012	88
Figure 38: Last location where cannabis was obtained in the preceding six months, 2012	88
Figure 39: Drug attributed to most recent stimulant overdose, 2012.....	91
Figure 40: Location of most recent stimulant and depressant overdose, 2012	91
Figure 41: Drug attributed to most recent depressant overdose, 2012	92
Figure 42: Location of most recent depressant overdose, 2012	93
Figure 43: Number of ADIS inquiries concerning ecstasy as primary drug of concern, WA January 2000 to June 2012	95
Figure 44: Number of ADIS inquiries concerning (meth)amphetamines as primary drug of concern, WA January 2000 to June 2012	96
Figure 45: Number of ADIS inquiries concerning cocaine as primary drug of concern, WA January 2000 to June 2012	97
Figure 46: 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 2010.....	99
Figure 47: Rate of hospital admissions where cocaine was the primary diagnosis in persons aged 15-54 years, WA and nationally, July 1993-June 2010	99
Figure 48: Rate of hospital admissions where cannabis was the primary diagnosis in persons aged 15-54 years, WA and nationally, July 1993-June 2010	100
Figure 49: History of reporting having ever injected drugs amongst WA REU/RPU samples, 2003-2012.....	103
Figure 50: Number of clandestine (meth)amphetamine laboratories detected by WA police 2004/05-2010/11	113

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ABBREVIATIONS

2C-B	2,5-dimethoxy-4-bromophenethylamine
2C-E	2,5-dimethoxy-4-ethylphenethylamine
2C-I	dimethoxy-4-iodophenethylamine
5MEO-DMT	5-methoxy-dimethyltryptamine
ABCI	Australian Bureau of Criminal Intelligence
ACC	Australian Crime Commission
ADIS	Alcohol and Drug Information Service
AGDH&A	Australian Government Department of Health and Ageing
AIHW	Australian Institute of Health and Welfare
ATS	amphetamine-type stimulants
AUDIT	Alcohol Use Disorders Identification Test
BBVI	blood-borne viral infections
BZP	benzylpiperazine
CIN	Cannabis Infringement Notice
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
EDRS	Ecstasy and Related Drugs Reporting System
EPS	emerging psychoactive substance
ERD	ecstasy and related drugs
GHB	gamma-hydroxy-butyrate
GP	general practitioner
HBV	hepatitis B virus
HCV	hepatitis C virus
HIV	human immunodeficiency virus
HSI	Heavy Smoking Index
IDRS	Illicit Drug Reporting System
IDU	Injecting drug users
K10	Kessler Psychological Distress Scale
KE	key expert
LSD	<i>d</i> -lysergic acid
MDA	3,4-methylenedioxyamphetamine
MDEA	3,4-methylenedioxyethylamphetamine
MDMA	3,4-methylenedioxymethamphetamine
MDPV	3,4-methylenedioxypyrovalerone; ivory wave; 'bath salts'
NDARC	National Drug and Alcohol Research Centre
NDLERF	National Drug Law Enforcement Research Fund
NDSHS	National Drug Strategy Household Survey
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
RPU	regular psychostimulant user
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

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, purity and availability of these drugs and how these may impact on each other; and the associated harms which may stem from the use of these drugs.

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

1. Quantitative interviews with 90 current regular ecstasy/psychostimulant users (REU/RPU) residing in the Perth metropolitan area;
2. Qualitative interviews with ten key experts (KE) who have regular contact with ecstasy users and are employed in areas including nightclub entertainment, health, outreach, and law enforcement; and
3. Analysis of various indicator data from health and law enforcement sources.

CAVEAT

Throughout the annual EDRS reports, comparisons and analyses are made between the current year's data and the previous year's data in order to investigate trends and determine whether there have been any statistically significant changes. However, due to the small sample size of the WA EDRS in 2011 (N=28), the 2011 data was of questionable validity and therefore inappropriate for making reliable comparisons with the current 2012 data. Consequently, throughout this report, all 2012 data is compared to the 2010 EDRS data.

Demographic characteristics of REU/RPU

For the purpose of this study, REU is a population defined by the use of ecstasy pills, powder or capsules on at least a monthly basis. This population has been recruited for the past 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 states, 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, MDA, cocaine, ketamine, GHB, LSD, mephedrone, or emerging

psychoactive substances (EPS) such as 2C-B, 2C-I) on at least six occasions over the preceding six month period. In total 90 participants were recruited, 65 REU and 25 RPU. The mean age of the group was 24 years (range 17-41). There was a slightly greater proportion of males (60%, n=54) than females (40%, n=36). The vast majority (97%) were of English speaking background.

The majority of participants (77%) had completed high school and the median number of years of school education was 12 (range 10-12). Approximately two-thirds (67%) had completed a tertiary qualification. Reported employment situations were varied from full-time employment (28%), full-time study (4%), both employed and studying (21%) and unemployed (21%). Very few participants reported that they were currently in drug treatment (3%).

The majority of participants identified as heterosexual in orientation (96%) and over half (56%) reported that their current relationship status was 'single'.

The majority reported living in either rented premises (53%) or their parents'/family house (39%). Participants earned a median of \$634/week (range \$40-\$2,442).

Statistical tests of significance were conducted between the current sample and the 2010 sample to indicate recent trends in the data. The current sample exhibits demographic characteristics consistent with the 2010 sample, the only exceptions being a significant increase in the proportion that had completed a tertiary qualification and a \$167 increase on the median weekly participant income.

Statistical tests of significance were also conducted between the 2012 REU (n=65) and RPU (n=25) samples to see how they compared in relation to demographic characteristics. Findings indicated that the two samples were very similar in all major demographics. The only significant difference between the two groups was that RPU had a significantly greater proportion of full-time students in comparison to REU. Further statistical comparisons were made between the 2012 REU sample (n=65) and the 2010 REU sample (N=100) to determine whether significant differences found in tertiary education could have been attributed to sampling differences in 2012 (i.e., changes to the selection criteria). The 2012 REU vs 2010 whole sample comparison remained significant, indicating that increases in tertiary education completions and median weekly income were unlikely to be due to sampling differences.

Drug use and markets in the 2012 EDRS

Ecstasy

Consumption patterns

The average age at which ecstasy was first used remained at 18 years, consistent with recent years. The proportion reporting ecstasy as their 'drug of choice' was 36%. The median number of days ecstasy was used in the preceding six month period was 8 days (10 days among REU) and average amount used in a 'typical' session was 1.8 tablets per session (2 tablets among REU).

Some notable changes in patterns of ecstasy use were observed in 2012 when compared to the 2010 sample. In 2012, significant increases were observed in both the lifetime and recent use of powder and capsule forms of ecstasy. This suggests that other less traditional forms of ecstasy may be making their way into the WA illicit drug market.

As found in previous years, pills were still the most common form of ecstasy used and almost the entire sample (93%) nominated swallowing as the main route of administration of ecstasy.

As in previous years, the majority reported using other drugs in combination with ecstasy on the last occasion of use. The drugs most commonly used with ecstasy were alcohol, tobacco, cannabis, pharmaceutical stimulants and crystal meth.

About two-fifths (39%) of the sample reported the use of other drugs to help them come down from ecstasy the last time they used it. The most commonly reported drug used to come down from ecstasy was cannabis.

Ecstasy was used in both public (56%) and private settings (44%). The most popular locations reported overall were 'nightclubs' (30%) and a 'friend's home' (20%).

Price, purity and availability

Consistent with recent years, the median price per ecstasy pill was \$35. The majority (57%) perceived the price of ecstasy as stable over the preceding six months.

The greatest proportion of the current sample rated the current purity of ecstasy 'medium' (35%), compared to the greatest proportion reporting 'low' in 2010 (45%). Perceptions regarding changes in purity during this period were mixed. Almost a third (30%) reported that purity was increasing, almost a third (29%) reported that purity was stable, and almost a third (29%) reported that it was fluctuating. While 'decreasing' was nominated by the highest proportion in 2010 (45%), it was nominated by the smallest proportion in 2012 (13%). It appears that previous perceptions of decreasing purity of ecstasy may be reversing in the current WA drug market.

Consistent with 2010, currently availability of ecstasy was predominantly perceived as 'easy' to obtain (65%). Availability over the preceding six months was rated as 'stable' by 44% of the current sample.

'Friends' have consistently been the most commonly reported person from whom ecstasy was last obtained, with 74% of the current sample reporting 'friends' as their last source of ecstasy. Accordingly, 'friend's home' was the most commonly reported location from which ecstasy was last obtained, as reported by 47% of the current sample. Among the current sample, ecstasy was purchased from a median of two people in the previous six months, with a median of three tablets being purchased at a time. Ecstasy was most commonly purchased for 'self and others' (54%).

Methamphetamine

Consumption patterns

Approximately three-fifths of the sample (62%) reported lifetime use of methamphetamine powder or speed and over one-quarter (27%) reported recent use. Speed was used on an average of four days over the preceding six months. The median amount of speed used in a 'typical' and 'heavy' session was 0.5 grams. Snorting was the most common route of administration, reported by 75%, followed equally by swallowing and smoking (each 38%), and then by injecting (13%). There were no significant changes in the proportions reporting lifetime or recent use of speed between 2010 and 2012. Reported quantity and frequency of use also appears stable.

Lifetime use of methamphetamine base was reported by 8% and 1% reported recent use. Base was used on a median of two days in the preceding six months. The

median amount used in a typical session was one point and the median amount used in a heavy session was two points. Smoking was reported as the route of administration. No further analyses were performed for base methamphetamine due to the extremely small numbers here.

Lifetime use of crystal methamphetamine was reported by 58% of the sample, which marked a significant increase from 40% in 2010. However, comparison of the current REU sample with the 2010 REU sample found no significant difference. This indicated that the significant increase was due to changes in the 2012 selection criteria (see section 2.1). This does not mean that the finding of increase in crystal methamphetamine use was invalid, but rather that these differences are due to the change in the selection criteria which were made precisely because the reduced availability of ecstasy was posing difficulties for recruitment for the EDRS in WA and other smaller jurisdictions. Recent use of crystal was reported by 33%, which did represent a significant increase from 22% in 2010. Crystal was used on an average of 10 days over the preceding six months. The median amount used in a typical session remained at one point, and the amount used in a heavy session remained at two points. The most common route of administration for crystal remained as smoking (90%), followed by snorting (30%), swallowing (13%) and then injecting (18%).

In 2012, the most commonly reported location spent under the influence on the last occasion of speed use was at home (42%); this was followed by at a nightclub (25%), and then a friend's home, a private party and a public place (each 8%). For crystal, the most commonly reported last location where most time was under the influence was at a friend's home (45%), and this was followed by own home and at a nightclub (each 25%).

Price, purity and availability

The median price per point of powder methamphetamine was \$100, compared to \$50 which has been consistently reported in previous years. Only one participant commented on the price per gram and that was \$400. Similar to speed, the median price per point of crystal methamphetamine was \$100, which again compared to \$50 which has been consistently reported in previous years. The median price per gram of crystal was \$525. It should be noted that price data was provided by small numbers of participants and, therefore, this information should be interpreted with caution. The majority reported that the prices for powder and crystal forms of methamphetamine were stable.

The purity of powder methamphetamine was rated mainly as medium (50%), followed by high (25%). The purity of crystal methamphetamine was rated mainly as high (68%). The greatest proportions reported that both powder and crystal methamphetamine purity was stable over the preceding six months. No participants reported that powder or crystal purity was decreasing.

The availability of crystal was most commonly rated as easy (58%), followed by very easy (42%). The availability of powder was most commonly rated as very easy (58%), followed by easy (33%). There were no participants that rated powder or crystal methamphetamine availability as very difficult to obtain. The availability of both crystal and powder forms of methamphetamine were perceived as stable over the preceding six months.

There were no participants who were able to comment on the price, purity of availability of base methamphetamine.

For powder and crystal forms of methamphetamine, the most commonly reported person from whom it was last obtained was friends. Accordingly, the most commonly reported location from where powder and crystal was last obtained was a friend's home.

Cocaine

Cocaine consumption

Cocaine was the third most commonly reported drug of choice, following ecstasy and cannabis, and was nominated by 16% of the sample.

Lifetime use of cocaine was reported by 71% of the sample and 31% reported recent use. With the exception of last year's findings (that have been excluded from comparison as per the report caveat), this figure for lifetime use is the highest recorded since the WA EDRS commenced in 2003. This figure also marks a significant increase from 49% in 2010. Further investigation comparing the 2010 and 2012 REU samples indicated that this significant increase was not due to sampling differences (i.e., changes to selection criteria, see section 2.1). Recent use remained comparable at 31%, compared to 26% in 2010.

In 2012, cocaine was used on an average of four days over the preceding six months, which was comparable with previous years. Snorting was the most commonly reported route of administration (100%), followed by swallowing (29%). No participants reported smoking or injecting cocaine in the preceding six months. The median quantity reported for a 'typical' session was half a gram and for a 'heavy' session was one gram, which remained unchanged from 2010.

Cocaine was most commonly used at a friend's home (42%), followed by a nightclub or own home (each 17%).

Price, purity and availability

The median price per gram of cocaine was \$325, which is comparable with previous years. The majority (63%) perceived the price of cocaine as stable over the preceding six months. Purity of cocaine was most commonly rated as medium (36%), followed by low (27%). The majority also perceived the purity of cocaine to be stable over the preceding six months. Availability was most commonly reported as difficult (46%) and again the majority perceived availability as stable.

Friends were the most commonly reported person from whom cocaine was last obtained (67%). Accordingly, friend's home was the most commonly reported location from where cocaine was last obtained (58%).

Ketamine

Ketamine consumption

Rates of ketamine use have remained consistently low in WA. In 2012, use of ketamine remained relatively unchanged from 2010 with 18% (14% in 2010) reporting lifetime use and only 3% (4% in 2010) reporting recent use. Of the three respondents who reported ketamine use in this period, the average number of days used was approximately four, compared to three in 2010. Measurements of the quantity of ketamine used have varied across years, with lines, tablets and grams being reported in 2012, whereas bumps have been reported in previous years. This makes comparisons of quantities used across years difficult. Both snorting and swallowing were reported as routes of administration.

Price, purity and availability

No participants commented on price, purity or availability of ketamine.

GHB**GHB consumption**

In 2012, 3% of the sample reported lifetime use of GHB and no participants reported recent use. This was the same as 2010 findings.

Price, purity and availability

No participants commented on the price, purity or availability of GHB.

LSD**LSD consumption**

LSD was the fourth most commonly reported drug of choice and was nominated by 9% of the sample.

Lifetime use of LSD was reported by 57% of the current sample and recent use was reported by 35%. These rates are comparable with previous years. LSD was used on an average of five days or a median of two days over the preceding six months. The frequency of LSD use also remained comparable with previous years.

The median amount of LSD used in a 'typical' session was 1.4 tabs and the median amount used in a 'heavy' session was approximately 1.9 tabs. Oral consumption or sub-lingual use was the only route of administration reported.

Friend's home was the most commonly reported location of last use (33%), followed by outdoors (29%).

Price, purity and availability

The median price for a tab of LSD in WA was \$20, compared to \$25 which has been consistently reported for the past six years. The majority (68%) reported that the price of LSD had been stable over the preceding six months.

The vast majority rated the current purity of LSD as high (74%) and no participants rated LSD purity as low. This compares to 43% rating LSD purity as high in 2010. The majority (59%) also perceived the purity of LSD as stable over the preceding six months.

Almost three-quarters (70%) reported that LSD was either very easy (40%) or easy (30%) to obtain. Similar availability was reported in 2010. Again, the majority perceived the availability of LSD as stable.

Friends were the most commonly reported person from whom cocaine was last obtained (57%). Accordingly, friend's home was the most commonly reported location from where cocaine was last obtained (33%).

Cannabis**Cannabis consumption**

Prevalence of cannabis use has been consistently high in WA across survey years. In 2012, cannabis was the second most commonly reported drug of choice, second only to ecstasy and was nominated by 21% of the sample.

Patterns of cannabis use among the current sample were comparable to those found in 2010. In 2012, lifetime use was reported by 99% and recent use was reported by

77% of the sample. Frequency of use also remained comparable to previous years, with cannabis being used on an average of 71 days over the preceding six months.

The median amount used during the last session was three cones or two joints. The most commonly reported route of administration was smoking (99%), followed by swallowing (40%).

Own home was the most commonly reported location of last use for both hydro (55%) and bush (56%) cannabis, followed by friend's home.

Price, purity and availability

The median price per ounce of hydro cannabis was \$350 which remained unchanged from 2010. The median price per ounce of bush cannabis was \$300 which was not significantly different from \$280 in 2010. The median price per gram of hydro and bush forms of cannabis remained unchanged from 2010 at \$25. Price during the preceding six months was reported as stable by the majority (66% for hydro cannabis and 75% for bush cannabis).

Current purity of hydro was rated by the majority as high (66%), while the majority rated purity of bush as medium (55%). No participants rated the purity of hydro as low. Purity of both cannabis forms were perceived as stable over the preceding six months (68% for hydro, 79% for bush).

There were no participants commenting on the price, purity or availability of hashish cannabis. The greatest proportion of the sample (65%) reported that availability of hydro was very easy, while the greatest proportion (46%) reported that availability of bush was easy. No participants reported that hydro was very difficult to obtain. The majority perceived the availability of hydro as stable over the preceding six months (72%), as did those reporting on bush (73%).

The most commonly reported person from whom cannabis was last obtained was friends for both hydro and bush (each 64%). Accordingly, friend's home was the most commonly reported location from where cannabis was last obtained.

Patterns of other drug use

Across survey years, alcohol use has consistently been reported by almost the entire sample. In 2012, this was no exception, with lifetime use reported by 100% and recent use reported by 96%. Alcohol was used on a median of 48 days over the preceding six months, which equates to approximately twice a week. Very few (n=6) participants reported drinking alcohol daily.

Tobacco use remained comparable with previous years. Lifetime use was reported by 96% of the current sample and recent use was reported by 67%. Tobacco was used on a median of 158 days. Almost half (45%, n=30) of those who reported recent smoking were daily smokers. Therefore, almost one-third (32%) of the entire sample were daily smokers.

In recent years reported rates of GHB use have been consistently low. In 2012 this was no exception, with only three participants reporting lifetime use of GHB and no participants reporting recent use of GHB.

Lifetime and recent use of MDA remained relatively unchanged from 2010. Lifetime use was reported by 11% and recent use was reported by 5%. MDA was used on an average of four days over the preceding six months.

Pharmaceutical stimulants, such as dexamphetamine and methylphenidate were included in the survey as a distinct drug class in 2005 and separated into illicit and licit (i.e. prescribed) use in 2007. Prevalence of pharmaceutical stimulant use across survey years has been consistently high. In 2012, the highest rates of lifetime use since the WA EDRS commenced (93%) were recorded, as well as one of the highest rates of recent use (67%). The majority of this use was illicit (97%). Therefore, almost the entire sample had used a pharmaceutical stimulant at some point in their lifetime and approximately two-thirds had used recently. These rates are similar to that of cannabis. While there were no significant increases in use between 2010 and 2012, there is a trend of an overall steady increase in use over the past six years. Illicit pharmaceutical stimulants were used on a median of six days over the preceding six months, which equates to approximately once a month.

With regards to use of other pharmaceutical medications, there were no significant changes seen in both lifetime and recent use of benzodiazepines. Lifetime use was reported by 46% and recent use was reported by 25%. Use of benzodiazepines was also separated into illicit and licit use, and illicit use was again the more commonly reported form of use (79%).

Use of anti-depressants was similar across survey years, with lifetime use reported by 29% of the sample and recent use reported by 8%. The median number of days used during the preceding six months remained unchanged at 180 days. Unlike pharmaceutical stimulants and benzodiazepines, antidepressant use was predominantly licit.

Participants were also asked about the use of inhalants amyl nitrate and nitrous oxide. Use of amyl nitrate remained similar to previous years, with lifetime use reported by 24% and recent use reported by 10%. Use of nitrous oxide also remained comparable to previous years, with lifetime use reported by 53% of the sample and recent use reported by 26%. Across survey years nitrous oxide has consistently been the more popular inhalant among REU/RPU.

With the exception of 2011, which saw an unintended overrepresentation of heroin and other opiate users likely due to difficulties in recruiting REU, rates of opiate use across survey years have been low. In 2012, there were no significant differences seen in lifetime and recent use of heroin from 2010, with only 6% reporting lifetime use and 1% reporting recent use. There were also no significant changes in either lifetime or recent use of methadone and buprenorphine. Only 2% reported lifetime use of methadone and no participants reported recent use. Similarly, only 3% reported buprenorphine use and no participants reported recent use. Use of 'other opiates', such as morphine, pethidine and over-the-counter medications containing codeine, has fluctuated across survey years. In 2012, there were no significant changes in 'other opiate' use, with 37% reporting lifetime use and 14% reporting recent use. Both licit (39%) and illicit use was reported (72%). Lifetime use of over-the-counter codeine was reported by 20% and recent use was reported by 14%.

In 2012, there was a significant increase in both lifetime and recent use of hallucinogenic mushrooms. Lifetime use was reported by the majority of participants (70%), while almost half (43%) reported recent use compared to 43% and 12% respectively in 2010. With the exception of last year (see Caveat), this represents the highest rates of both lifetime and recent use of mushrooms seen since the EDRS commenced in 2003. Further investigation comparing the 2010 and 2012 REU samples indicated that this significant increase was not due to sampling differences (i.e., changes to selection criteria, see section 2.1). For those who reported recent use, mushrooms were used on a median of one day over the preceding six months.

For the first time in 2009, participants were asked to report on their use of over-the-counter stimulants, such as cold and flu medications containing pseudoephedrine, for recreational use. While 2010 saw a significant increase in use, 2012 saw a significant decrease in both lifetime and recent use. Only 8% reported lifetime use and only 2% reported recent use, marking the lowest rates of use seen since 2009.

For the first time in 2010, REU were asked to report on steroid use. Rates of use since 2010 have consistently remained extremely low. In 2012, only two participants reported lifetime steroid use, while only one reported using steroids recently.

From 2010 onward, the EDRS has attempted to systematically investigate a group of drugs known as 'research chemicals' (also known as analogues, legal highs, herbal highs, party pills). For the purpose of the report, these drugs are referred to as emerging psychoactive substances (EPS). The most commonly reported EPS ever used among the current sample were synthetic cannabinoids (42%), DMT (32%), mephedrone (16%) and BZP (14%). However, as in previous years, reported recent use of these drugs has remained low, with the exception of DMT (22%) and synthetic cannabinoids (18%).

Health-related issues

Since 2007, EDRS respondents were asked about overdose on a stimulant drug and on a depressant drug. In 2012, there was a significant increase in the number of reported stimulant overdoses, with approximately half of the REU/RPU sample (51%) reporting one at some point in their lifetime, up from 21% in 2010. Further investigation comparing the 2010 and 2012 REU samples indicated that this significant increase was not due to sampling differences (i.e., changes to selection criteria, see section 2.1). The median amount of times stimulant overdose had occurred was two times, compared to one time in 2010. Additionally, the most recent overdose was 5 months ago in 2012, in comparison to 20 months ago in 2010. There were no significant changes in reported depressant overdoses, with 38% reporting one at some point in their lifetime. The median amount of times a depressant overdose had occurred was two times and the most recent overdose was 12 months ago. The most commonly implicated drug in stimulant overdoses was ecstasy, while the most commonly implicated drug in depressant overdoses was alcohol.

In 2012, 17% of the sample reported accessing a medical or health service in relation to their drug use in the last six months. The most common services accessed were general practitioners (n=7) and psychologists (n=5). There were a variety of physical and psychological health issues nominated as the main issue. The most common drug a general practitioner was seen in relation to was ecstasy. The most common drug a psychologist was seen in relation to was also ecstasy.

The Kessler Psychological Distress Scale (K10) was included in the EDRS from 2006 as a screening tool for symptoms of depression and anxiety. In 2012, the most common categories were no or low distress or moderate psychological distress (each 40%), followed by high psychological distress scored by 18%. Very high levels of distress were scored by only 1%. These results were not significantly different to those found in 2010.

Questions regarding mental health problems were included for the first time in the 2008 EDRS. This included asking participants whether they had had any mental health problems (including self-diagnoses) in the last six months. In 2012, 28% of participants reported having had mental health problems in the preceding six months, comparable to 27% in 2010. Of these participants, the main mental health problems

specified were anxiety (60%) and depression (56%). Of these, 64% reported attending a health professional in the past six months. Additionally, 61% of those reporting a mental health problem also reported that they were prescribed a medication in the last six months. Medications prescribed included anti-depressants, anti-psychotics and benzodiazepines. The most commonly prescribed medications were anti-depressants (55%).

Risk behaviours

In 2012, respondents reported on a range of risk behaviours related to injecting drug use, blood-borne viruses, sexual practices, driving behaviours, and alcohol use.

In relation to injecting drug use, the proportions reporting lifetime and recent injection were comparable to that of 2010. Lifetime injection was again reported by 10% of the sample and injecting in the last six months was reported by 67% of these (60% in 2010). In 2012, the most commonly reported drug ever injected and recently injected was crystal methamphetamine followed by powder methamphetamine or speed. In 2010, the most commonly reported was speed followed by crystal.

Participants were asked a range of questions related to both blood-borne virus (BBV) vaccination and testing and sexually transmitted infection (STI) testing. A minority of participants reported vaccination for HBV (36%) and the majority reported that they had never been tested for HBV, HCV or HIV. Only two participants reported a positive test result for a BBV and this was for HCV. Both of these participants had reported a history of injecting drug use. Close to half of the sample (44%) reported having a sexual health check-up (such as a swab, urine, or other blood test) in the past year, while 23% reported having a check-up more than one year ago. Approximately one-quarter (23%) reported that they have never had a sexual health check-up. The majority (79%) of participants reported that they had never been diagnosed with a STI, 13% reported an STI diagnosis more than one year ago, and 7% reported a diagnosis in the past year. Of these, Chlamydia was most common diagnosis (61%).

Participants were asked to report how often protective barriers were used with casual sex partners in the preceding six months. Of the current sample, 68% reported engaging in penetrative sex with a casual partner in the last six months. The greatest proportion (22%) reported having three to five partners during this period. Of these participants, almost everyone (97%) reported having casual sex whilst under the influence of alcohol or other drugs. Further, approximately one-third (32%) reported that casual sex whilst under the influence occurred more than ten times over the past six months. The most commonly reported drugs used in this context were alcohol and ecstasy. More than half (58%) of those reporting recent casual sex reported that they did not use a protective barrier with their last causal partner while under the influence. The most commonly reported reason for not using a barrier was 'it wasn't mentioned'. Similarly, almost half (48%) reported that they did not use a protective barrier with their last causal partner while sober.

Of the current sample, 91% had driven a car in the preceding six months. Among these participants, 59% reported driving whilst affected by alcohol and 55% reported driving over the legal alcohol limit, findings which were comparable to that in 2010. The median number of times these respondents had driven over the alcohol limit in the last six months was three times (i.e. on average once every two months). Just under half reported that they had undergone roadside breath testing in this period (42%) and, of these respondents, 21% (n=7) reported testing over the legal blood alcohol limit. These findings were again comparable with 2010.

Of the current sample that had driven in the preceding six months, 55% reported driving after taking an illicit drug. Of these participants, the median number of times driven under the influence of an illicit drug was three times. The most commonly reported drugs used prior to driving were cannabis (64%) and ecstasy (56%). When questioned about their perceived level of impairment while driving, 42% reported their drug use had 'no impact' and 33% reported that it was 'slightly impaired'. In 2012, four respondents were roadside drug tested, three tests returned negative results and one test result was never received.

The AUDIT (Saunders et al. 1993) was completed for the sixth consecutive year. The AUDIT was designed by the World Health Organization (WHO) as a brief screening scale to identify individuals with alcohol problems. Total scores of eight or more are recommended as indicators of hazardous and harmful alcohol use. In the 2012 WA EDRS sample the mean AUDIT score was 15. There were 71 participants (79%) who scored higher than the cut off of eight, indicating hazardous or harmful alcohol use, which compares to 72% in 2010.

Criminal and police activity

The proportion of participants reporting criminal activity in 2012 was 29%, compared to 35% in 2010. Of these participants, 'drug dealing' was the most commonly reported criminal activity (24%) and, of those that had dealt drugs, most engaged in this activity less than once a week (79%). Of the current sample, 11% had been arrested in the last 12 months, compared to 13% in 2010. The most commonly reported reason for arrest was for an alcohol and driving offence.

In 2012, just over half (51%) reported that they perceived police activity as 'stable' over the preceding six months.

Fagerstrom test for nicotine dependence

For the second year consecutively, EDRS participants who smoked daily were asked questions from the Fagerstrom test for nicotine dependence. Ten percent (n=3) of daily smokers scored above five indicating high to very high nicotine dependence.

Ecstasy dependence

In 2012, the participants in the EDRS were asked questions from the SDS to investigate ecstasy dependence. The SDS is a five-item questionnaire designed to measure the degree of dependence on a variety of drugs. There were just four participants (4%) in the sample who scored above the dependency cut off of four, and they were all male. Therefore, the vast majority of participants (96%) did not score high enough to be considered dependent on ecstasy.

Policy

In 2012, additional questions were asked to provide data about how people who use drugs perceive Australian drug policy, building on research undertaken as part of the wider Drug Policy Modelling Program (DPMP) project "Public opinion and drug policy: engaging the "affected community". The policy questions were drawn from the National Drug Strategy Household Survey (Australian Institute of Health and Welfare, 2008) to ensure comparability with general population responses. Overall, the majority of participants supported most of the harm reduction measures aimed at reducing problems associated with heroin use. When asked to comment on level of support for the legalisation of a variety of drugs for personal use, the majority were in support of cannabis (73%) and many were also in support of ecstasy (44%). The majority did not support increased penalties for the sale and supply of cannabis, ecstasy or cocaine; however, many were in support of increased penalties for methamphetamine and heroin.

Neurological history

People with a neurological illness or injury may be at greater risk of experiencing adverse effects associated with drug use. In 2012, the EDRS examined the prevalence of selected neurological illnesses and also of traumatic brain injury (TBI) among REU/RPU. While stroke and hypoxia were not reported in the current sample and epilepsy was extremely uncommon (2%), TBI was reported by 47% of participants. Comparisons with existing community samples suggest this rate may be higher than that of other samples; however, due to differences in data collection, comparisons are limited and must be approached with caution.

Body image

Research has highlighted a link between psychostimulant use and body image, suggesting that adolescent girls and young women with negative weight perceptions are more likely to engage in both licit and illicit substance use (Leventhal, 1983; Nieri, Kulis, Keith & Hurdle, 2005; Weathers & Billingsley, 1982). Questions were included in the 2012 EDRS that aimed to enhance understanding of the relationship between illicit psychostimulant (IPS) drug use and body image. Of the current sample, 14% reported ever using IPS to lose or maintain weight, of which 85% were female. The most commonly reported drug used was dexamphetamine (70%). Only four participants reported recent use of IPS to lose or maintain weight.

Implications regarding trends in use

There are a number of drug trends findings in this year's EDRS which will be looked at with interest in 2013 to see whether they continue. These include: (1) the suggestion in the 2012 data that the previous decline in availability and purity of ecstasy in WA may be coming to an end; (2) the increase in lifetime and recent use of powder and capsule, rather than the traditional pill form of ecstasy; (3) patterns of crystal methamphetamine use among the EDRS sample which appears related to the change in the EDRS selection criteria (see below); (4) the doubling of the price of a point of both crystal and powder amphetamine from 2010 to 2012; and (5) increases in lifetime, but not recent use of cocaine.

Implications regarding health

The high level of alcohol use among the current sample is of concern. The majority of the sample obtained AUDIT scores that indicate hazardous and harmful use of alcohol. Additionally, more than half of the sample (57%) consumed alcohol on a 'more than weekly' basis. Alcohol was also the main drug implicated in depressant overdoses. Reported symptoms included vomiting, losing consciousness and collapsing. 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 presents additional concern. Among the current sample, the use of stimulant drugs concurrently with alcohol was common. Almost three-quarters of the sample (71%) reported using alcohol with ecstasy and, among these respondents, the majority (83%) reported consuming more than five standard drinks. Additionally, there was a significant increase in stimulant overdoses this year, and alcohol was implicated as a contributing drug in many of these cases. Likewise, stimulant drugs such as ecstasy and pharmaceutical stimulants were also implicated in depressant overdose cases. These findings are again 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.

The significant increase (from 21% in 2010 to 51% in 2012) in stimulant overdoses in isolation also warrants concern. Among reported stimulant overdoses, ecstasy was the most commonly implicated drug. The most commonly reported main symptom was 'extreme anxiety'. This increase in overdoses raises several questions. Firstly, were these overdoses a result of drug related factors (such as simply consuming too much, consuming an adulterated pill, and/or combining more than one substance), were they the result of individual factors (such as not maintaining adequate hydration or food intake, sleep deprivation, and/or not being in a good psychological state prior to use), were they a result of environmental factors (such as extreme heat or weather conditions and/or overcrowding), or were these overdoses a result of a combination of these factors. While these questions remain, this finding has implications for targeted campaigns educating REU/RPU about drug, individual and environmental risk factors for stimulant overdose and education about harm reduction strategies to help minimise the risk when engaging in stimulant use. This finding also has implications for continued close monitoring of stimulant overdoses and perhaps further investigation into risk factors contributing to these overdoses. Additionally, the vast majority reported that there was no sober person present to assist them at the time of overdose, and the majority did not seek out any help or medical treatment. This finding has further implications for harm reduction efforts targeting help-seeking behaviours among REU/RPU.

The finding that almost half of the sample (47%) had experienced a traumatic brain injury (TBI), and that 26% had been under the influence of alcohol and 12% under the influence of other drugs during the most severe TBI, raises concern and may warrant further investigation. Causes of the TBIs were not investigated in the current study; it is only known whether the participant was under the influence at the time of the TBI. Further investigation into where TBIs occurred and what caused the TBIs might be useful in determining how to reduce the occurrence of TBIs while under the influence of alcohol or other drugs.

Implications related to changes in methodology

It was predicted in the 2010 EDRS report that if ecstasy purity continued to decline, that a shift away from ecstasy and toward other stimulant drugs like methamphetamine and research chemicals could occur. It was expected that if this trend away from ecstasy did eventuate, that there could be significant implications for recruiting EDRS participants based on the existing selection criteria. During the 2011 WA EDRS recruitment process, considerable difficulties were experienced, which was believed to be a result of declines in the perceived purity and availability of ecstasy. These recruitment difficulties suggested that the predicted trend away from ecstasy could have been occurring, and it was therefore proposed that alterations to methodology be considered in future years to account for this trend. Consequently, in response to these issues, the 2012 WA EDRS selection criteria were expanded to include both regular ecstasy users (REU) and regular psychostimulant users (RPU). While recruitment efforts again failed to attract the same number of eligible participants (65 REU, 25 RPU) as seen in previous years (100 REU), it was a considerable improvement on 2011 (28 REU).

While expanding the selection criteria helped increase the sample size, these changes presented their own unique challenges, particularly in relation to making valid statistical comparisons across data collection periods. Given that recruitment criteria were different across years, it was possible that any significant differences found across years could have been accounted for by sample differences related to changes in the selection criteria. To rule this explanation out, additional analyses were conducted throughout the report by comparing REU samples across years, as well as comparing the current REU sample to current RPU sample. Therefore, if the

2012 selection criteria are adopted in subsequent data collection periods, comparability of data across years and sample differences need to be considered.

Another issue to consider in relation to these methodological changes is that user perceptions from the 2012 WA EDRS show preliminary indications that both purity and availability may be recovering in WA. If this is the case, it needs to be considered whether 2012 selection criteria changes are continued in 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 and Ageing (AGDH&A) and modelled upon the more established Illicit Drugs Reporting System (IDRS). As the focus of the IDRS was upon injecting drug users, it did not directly acknowledge the distinct population regularly using ecstasy and related drugs. Consequently, in 2000, the National Drug Law Enforcement Research Fund (NDLERF) funded a two-year, two-state trial of the feasibility of monitoring emerging trends in the markets for ecstasy and related drugs (ERD) using the extant IDRS methodology. In 2012, 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, *d*-lysergic acid (LSD), ketamine, 3-4methylenedioxyamphetamine (MDA) and gamma-hydroxy butyrate (GHB). This marked the beginning of the Party Drugs Initiative (PDI), which became a national survey in 2003 and was re-named the Ecstasy and Related Drugs Reporting System (EDRS) in 2006.

The current report presents the findings of the tenth 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 2012 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, purity and availability;
4. Examine participants' experiences of the nature and incidence of ecstasy-related harm including physical, psychological, financial, social and legal harms;
5. Compare key findings of this study with those reported in previous years (2003-2011); 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%) (AIHW, 2011a). In WA, 3.7% of the general population reported use of ecstasy in 2010, making it the state with the highest reported use of ecstasy (AIHW, 2011a). 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. It was speculated that this could be a result of declines in the purity and availability of ecstasy in WA and across Australia.

As in other parts of the world, in Australia there is evidence for a decline in 'ecstasy' purity (Australian Crime Commission, 2010). This declining purity has provided potential for an expanding market of emerging psychoactive substances (EPS), as existing ecstasy users seek alternative substances (Bruno, Matthews, & Dunn, 2012). Low purity and availability of ecstasy could also provide potential for the uptake or increase in the use of other psychoactive drugs like methamphetamine, cocaine and LSD. Therefore, what was once acknowledged and understood as the ecstasy and related drugs market could be evolving with less entrenchment of ecstasy. 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). Therefore, for the purpose of the present study, the sentinel population for the 2012 WA EDRS consisted of regular ecstasy users (REU) and/or regular psychostimulant users (RPU). It is intended that a review of this strategy, including comparing the respondents accessed by these two criteria, will be undertaken in those jurisdictions where these changes were made in order to decide on the future of these recruitment criteria.

2.1.1. Recruitment

For the 2012 WA EDRS study, 90 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). Last year these recruitment methods failed to attract the numbers seen in previous years (N=100). As previously discussed, recruitment difficulties were likely the result of a decline in the availability and purity of ecstasy in WA; however, outdated recruitment methods could have also contributed to recruitment difficulties. Therefore, in addition to expanding the selection criteria, in 2012 various additions were made to recruitment methods in order to bring recruitment methods 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 street press magazines, as well as in print magazines.
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 (HR25/2007) with a stipulation that interviews be conducted with participants aged 16 years or older.

2.1.2. Procedure

In 2012, 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 or capsules) or a psychostimulant drug (e.g., methamphetamine, MDA, cocaine, ketamine, GHB, LSD, mephedrone, or emerging psychoactive substances (EPS) such as 2C-B, 2C-I) at least monthly or on six separate occasions over the previous six months;
2. Aged 16 years or older; and
3. Resident in the Perth metropolitan area for a minimum of 12 months prior to interview.

Participants meeting these criteria were informed that the study consisted of a confidential face-to-face interview conducted at a public place of convenience for both parties. It was explained that the structured interview would take approximately 60 minutes to complete, and that all data would be collected anonymously. In 2012, 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 NDARC in 1997 (Topp et al., 1998; Topp et al.,

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

2.1.4. Data analysis

Quantitative data from the REU/RPU survey were analysed using PASW Statistics 18 for Windows. Due to the small sample size for the 2011 WA EDRS, tests for statistical significance were done between 2010 and 2012 data instead (as outlined in the study Caveat). 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 users. Regular contact was defined as average weekly contact and/or contact with 10 or more ecstasy users throughout the past six months. Ten KE from law enforcement, health, and nightclub entertainment participated in the WA EDRS 2012.

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

3. RESULTS

CAVEAT

Throughout the annual EDRS reports, comparisons and analyses are made between the current year's data and the previous year's data in order to investigate trends and determine whether there have been any statistically significant changes. However, due to the small sample size of the WA EDRS in 2011 (N=28), the 2011 data was of questionable validity and therefore inappropriate for making reliable comparisons with the current 2012 data. Consequently, throughout this report, all 2012 data is compared to the 2010 EDRS data.

3.1. Overview of the REU/RPU sample

Interviews were conducted with 65 regular ecstasy users (REU) and 25 regular psychostimulant users (RPU), equating to a total sample of 90 REU/RPU, in the Perth metropolitan area between April and July 2012. 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 24 years (median 23, range 17-41). There was a greater proportion of males (60%, n=54) than females (40%, n=36). The vast majority (97%) were of English speaking background.

The majority of participants (77%) had completed high school and the median number of years of school education was 12 (range 10-12). Almost half (49%) of the sample had gone on to complete a university or college degree, many others had gone on to complete either a trade or technical qualification (18%), and others were currently studying. Over one-quarter (28%) reported full-time employment, 4% reported full-time study, and 21% reported that they were both studying and employed. Very few participants reported that they were currently in drug treatment (3%).

The majority of participants identified as heterosexual in orientation (96%) and over half (56%) reported that their current relationship status was 'single'.

The greatest proportion of the sample (53%) reported residing in rented premises, followed by living in their parents' or family's house (39%). Participants earned a median of \$634/week (range \$40-\$2,442).

Demographic characteristics of the 2012 sample have remained similar to that of 2010. The greatest variability is noted in the completion of a tertiary qualification (university/college or trade/technical), significantly increasing from 48% in 2010 to 67% in 2012 (95%CI 0.05, 0.32). This could be attributed to increased recruitment efforts targeting university students, such as advertising the study on the Curtin University Health Sciences Homepage. Participant income has also increased by \$167 per week, which could be accounted for by the increase in those reporting the completion of a tertiary qualification.

Statistical tests of significance were also conducted between the 2012 REU (n=65) and RPU (n=25) samples to see how they compared in relation to demographic characteristics. Findings indicated that the two samples were very similar in all demographics outlined in Table 1. The only significant difference between the two groups was in relation to full-time study. A Chi-square test with Yates continuity

correction revealed that RPU had a significantly greater proportion of full-time students in comparison to REU ($t(1, N = 90) = 4.16, p < 0.05$). Further statistical comparisons were made between the 2012 REU sample ($n=65$) and the 2010 REU sample ($N=100$) to determine whether significant differences found in tertiary education could have been attributed to sampling differences in 2012 (i.e., changes to the selection criteria). Findings were consistent with original comparisons (made between the complete 2012 REU/RPU sample and the 2010 sample), indicating that significant differences found in demographics were unlikely due to sampling differences.

Table 1: Demographic characteristics of WA REU/RPU samples, 2003-2012

Variable	2003 N=100	2004 N=100	2005 N=100	2006 N=100	2007 N=100	2008 N=58	2009 N=100	2010 N=100	2011 N=28	2012 N=90
Mean age (years)	21.4	22.0	22.7	24.7	26.4	22.9	23.1	23.4	26.8	23.7
Male (%)	53	59	58	60	55	48	65	48	68	60
English speaking background (%)	99	97	99	95	95	98	97	99	96	97
ATSI (%)	9	1	3	2	1	0	2	4	4	2
Heterosexual (%)	83	89	90	86	88	97	84	86	100	96
Mean number school years	12.1	11.5	11.5	11.5	11.5	11.8	11.5	11.7	11.4	11.6
Tertiary qualifications (%)	48	49	57	51	52	59	46	48	36	67*
Full-time students (%)	16	21	14	19	3	3	13	8	7	4
Employed full-time (%)	33	31	33	52	24	55	22	31	14	28
Employed part-time (%)	16	22	35	13	38	12	23	29	21	22
Both studying and employed	-	-	-	-	-	24	27	17	18	21
Unemployed (%)	22	24	15	14	25	5	15	13	25	21
Mean income per week	-	-	-	-	-	-	\$425	\$467	\$471	\$634
Current drug treatment (%)	5	6	6	5	8	3	5	3	7	3

Source: WA EDRS REU/RPU interviews, 2003-2012

*indicates significant changes from the 2010 results according to 95% CI and p=.05

4. CONSUMPTION PATTERN RESULTS

4.1. Drug use history and current drug use

Respondents were asked about lifetime (ever used) and recent use (last 6 months) of a variety of drugs, as presented in Table 2. Polydrug use has been common among REU/RPU samples since the WA EDRS commenced in 2003. The majority of the sample reported recent use of alcohol (96%), cannabis (77%), tobacco (67%) and pharmaceutical stimulants (67%). While there appear to be no significant changes in the use of any of these drugs between 2010 and 2012, there does appear to have been an overall steady increase in both lifetime and recent use of pharmaceutical stimulant use since 2008.

There were some notable changes in the rates of illicit drug use in the current sample compared to the 2010 sample. One of the most marked features was that the steady decline in crystal methamphetamine rates that have been seen since 2005/2006 ended. This trend was evident by increases in both lifetime (58%) and recent use (33%) of crystal. While comparison of the current sample with the 2010 sample indicated a significant increase in lifetime use, further investigation indicated that this could have been attributed to 2012 sampling differences (i.e., changes to the selection criteria, see section 2.1). Therefore, it is unclear as to whether this finding represents a genuine significant increase in use, or whether this finding is the result of sampling differences. The former would support the prediction made in the 2010 EDRS report that if low ecstasy purity continues in WA there will be a shift away from ecstasy and toward other psychostimulant drugs like crystal methamphetamine. There was no significant difference between recent use of crystal methamphetamine between 2010 and 2012. Additionally, no significant differences were observed for lifetime or recent use of methamphetamine powder or base (See section 4.3, 'Methamphetamine use', for more detailed analyses).

There was a significant increase in both lifetime use (95%CI -0.06, -0.33) and recent use (95%CI -0.02, -0.25) of 'magic' mushrooms, marking the highest rates recorded since the WA EDRS commenced in 2003. Further investigation comparing the 2010 and 2012 REU samples indicated that these significant increases were not due to sampling differences (i.e., changes to selection criteria, see section 2.1). There was also a significant increase in those reporting use of cocaine in their lifetime (95%CI -0.06, -0.33), and, again, further investigation comparing REU samples indicated that this increase was not due to sampling differences. The proportion of those reporting recent use of cocaine did not significantly change from 2010. Additionally, no significant changes were observed for lifetime or recent use of LSD, MDA, ketamine or GHB (See section 4.9, 'Other drugs used', for more detailed analyses).

There was a significant increase in lifetime use of 'other opioids', with 46% reporting use in 2012 compared to 27% in 2010. Rates of recent use remained comparable to 2010. There were no significant differences observed for lifetime or recent use of heroin, methadone, or buprenorphine (See section 4.9, 'Other drugs used', for more detailed analyses).

For the first time in 2009, respondents were asked to report on their use of over-the-counter stimulants, such as cold and flu medications containing pseudoephedrine, for recreational purposes. In 2012, lifetime use of over-the-counter stimulants significantly decreased from 36% in 2010 to 8% (95%CI 0.17, 0.39), and recent use also significantly decreased from 26% in 2010 to 2% of the current sample (95%CI 0.14, 0.33) (See section 4.9, 'Other drugs used', for more detailed analyses).

Participants also reported on the use of drugs other than those listed in Table 2; for example, DMT, mephedrone and synthetic cannabis. The EDRS began to systematically investigate these other less commonly used drugs in 2010. These drugs are referred to as emerging psychoactive substances (EPS) (see section 4.9 'Emerging psychoactive substance use' for more detailed analyses).

Participants were also asked about their history of injecting drug use for which no notable changes were observed. The proportion of those who had ever injected in 2012 (10%) remained unchanged from 2010, as did the proportion of those who had recently injected (60%) (See section 7.1, 'Injecting risk behaviours', for more detailed analyses).

Table 2: Lifetime and recent polydrug use of WA REU/RPU samples, 2003-2012

	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
Ever inject any drug (%)	21	22	22	20	27	10	11	10	36	10
Alcohol										
ever used (%)	99	99	99	100	97	100	100	100	100	100
used last 6 months (%)	94	92	98	99	92	98	99	98	93	96
Cannabis										
ever used (%)	99	97	99	100	96	100	99	99	100	99
used last 6 months (%)	91	85	83	86	80	85	85	81	86	77
Tobacco										
ever used (%)	83	84	86	97	79	90	92	84	89	96
used last 6 months (%)	70	73	72	74	52	69	76	67	89	67
Methamphetamine powder (speed)										
ever used (%)	93	88	94	87	72	72	63	60	67	62
used last 6 months (%)	83	78	85	65	46	38	37	38	44	27
Methamphetamine base (base)										
ever used (%)	54	46	59	56	22	22	13	8	36	8
used last 6 months (%)	32	31	38	32	10	5	3	4	11	1
Crystal methamphetamine (crystal)										
ever used (%)	91	89	88	89	69	62	41	40	64	58*
used last 6 months (%)	77	80	69	77	52	36	20	22	46	33
Pharmaceutical stimulants										
ever used (%)	-	-	89	92	71 [#]	85 [#]	82 [#]	83 [#]	89 [#]	93[#]
used last 6 months (%)	-	-	74	60	53 [#]	53 [#]	60 [#]	58 [#]	68 [#]	67[#]
Cocaine										
ever used (%)	44	36	57	55	56	66	52	51	82	71*
used last 6 months (%)	17	16	35	29	27	40	24	26	32	31

Source: WA EDRS REU/RPU interviews, 2003-2012

[#] includes licit and/or illicit use

*indicates significant changes from the 2010 results according to 95% CI and p=.05

Table 2: Lifetime and recent polydrug use of WA REU/RPU samples, 2003-2012 (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
LSD										
ever used (%)	62	50	71	67	49	47	55	48	71	57
used last 6 months (%)	22	11	35	25	23	21	31	35	36	33
MDA										
ever used (%)	12	19	19	6	22	16	9	11	25	17
used last 6 months (%)	1	6	11	0	3	5	2	5	14	4
Ketamine										
ever used (%)	25	21	25	14	22	21	18	14	18	18
used last 6 months (%)	12	10	11	4	2	3	6	4	0	3
GHB										
ever used (%)	20	11	10	5	8	7	7	3	14	4
used last 6 months (%)	8	5	3	2	0	2	2	0	0	1
Amyl nitrate										
ever used (%)	43	36	46	34	27	21	20	20	29	24
used last 6 months (%)	16	15	17	8	7	3	6	5	7	10
Nitrous oxide										
ever used (%)	65	62	63	57	46	48	39	39	50	53
used last 6 months (%)	43	43	34	23	20	21	13	16	18	26
Mushrooms										
ever used (%)	-	-	53	53	46	45	50	43	79	70*
used last 6 months (%)	-	-	14	13	14	10	15	12	11	26*
Benzodiazepines										
ever used (%)	48	35	49	57	48 [#]	36 [#]	41 [#]	44 [#]	61 [#]	56[#]
used last 6 months (%)	32	29	39	32	37 [#]	24 [#]	22 [#]	28 [#]	39 [#]	25[#]
Anti-depressants										
ever used (%)	30	25	32	29	26 [#]	17 [#]	21 [#]	24 [#]	29 [#]	29[#]
used last 6 months (%)	17	13	13	14	13 [#]	9 [#]	6 [#]	10 [#]	4 [#]	8[#]

Source: WA EDRS REU/RPU interviews, 2003-2012

[#] includes licit and/or illicit use

*indicates significant changes from the 2010 results according to 95% CI and p=.05

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

Source: WA EDRS REU/RPU interviews, 2003-2012

[#] includes licit and/or illicit use

*indicates significant changes from the 2010 results according to 95% CI and p=.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 a 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 in the samples recruited over the last ten years in WA.

In 2012, the average age at which ecstasy was first used remained at 18 years. The proportion nominating ecstasy as their 'drug of choice' was 36%, which did not significantly change from 2010. The second most commonly nominated 'drug of choice' was then cannabis (21%), followed by cocaine (16%).

Some significant differences in ecstasy use were observed between the 2010 REU sample and the 2012 REU/RPU sample. The proportion who reported typically using more than one tablet per session significantly declined from 81% in 2010 to 66% in 2012. The average amount used in a 'typical' session did, however, remain comparable to previous years at 1.8 tablets per session. The median number of days ecstasy was used over the preceding six months also significantly declined from 10 days in 2010 to 8 days in 2012. However, upon further investigation, when comparing the 2010 REU sample (N=100) to the 2012 REU sample (n=65) there were no significant differences in the proportion reporting the use of more than one tablet per session, and there was also no significant difference in the median number of days ecstasy was used in the preceding six-month period (see Table 3). Therefore, these declines in ecstasy use could have been attributed to changes in the 2012 selection criteria (participants of the current sample did not have to meet the original selection criteria of six occasions of ecstasy use over the preceding six months, see section 2.1). To allow valid comparison between the 2012 ecstasy use data and previous years' ecstasy use data, the current sample has been divided into REU and REU/RPU in Table 3.

A significant increase in both lifetime (95%CI -0.09, -0.30) and recent use (95%CI -0.06, -0.30) of powder forms of ecstasy was also observed in 2012. Almost half the current sample (42%) reported using ecstasy powder at some point in their lifetime, compared to just 18% in 2010. Likewise, approximately one-quarter reported using powder ecstasy in the preceding six months (26%), compared to just 6% in 2010. Similarly, in 2012 there was a significant increase in both lifetime (95%CI -0.11, -0.36) and recent use (95%CI -0.03, -0.30) of capsule forms of ecstasy. Over half the current sample (58%) reported using ecstasy capsules at some point in their lifetime, compared to just 41% in 2010. Likewise, the proportion who reported using capsules in the preceding six months increased to 32%, from 14% in 2010. This finding is interesting as it suggests that other less traditional forms of ecstasy could be making their way into the WA ecstasy market.

Consistent with previous years, 'swallowing' was reported as the main route of administration and was reported by 93% of the sample; the remaining respondents

(7%) reported 'snorting' as the main route of administration. Similar to 2010, only a very small number (4%) reported ever 'injecting' ecstasy.

Table 3: Patterns of ecstasy use among REU/RPU, 2003-2012

	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
Mean age first used ecstasy (years)	18	18	18	19	20	18	18	18	18	18	18
Mean days used ecstasy last 6 months [#]	16	16	20	21	16	13	12	14	17	13	11
Ecstasy 'favourite' drug (%)	52	44	51	41	46	38	42	45	26	39	36
Use ecstasy weekly or more (%)	25	21	30	35	27	10	29	14	29	14	12
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
Typically use >1 tablet (%)	57	61	68	70	54	74	86	81	75	77	66*
Recently binged on ecstasy or related drugs (%) ~	38	38	40	45	29	22	40	27	54	29	26

Source: WA EDRS REU/RPU interviews, 2003-2012

*indicates significant changes from the 2010 results according to 95% CI and p=.05

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

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

Used ecstasy pills and/or powder

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

Source: WA EDRS REU/RPU interviews, 2003-2012

*indicates significant changes from the 2010 results according to 95% CI and p=.05

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

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

Used ecstasy pills and/or powder

4.2.2. Use of other drugs with ecstasy and during comedown

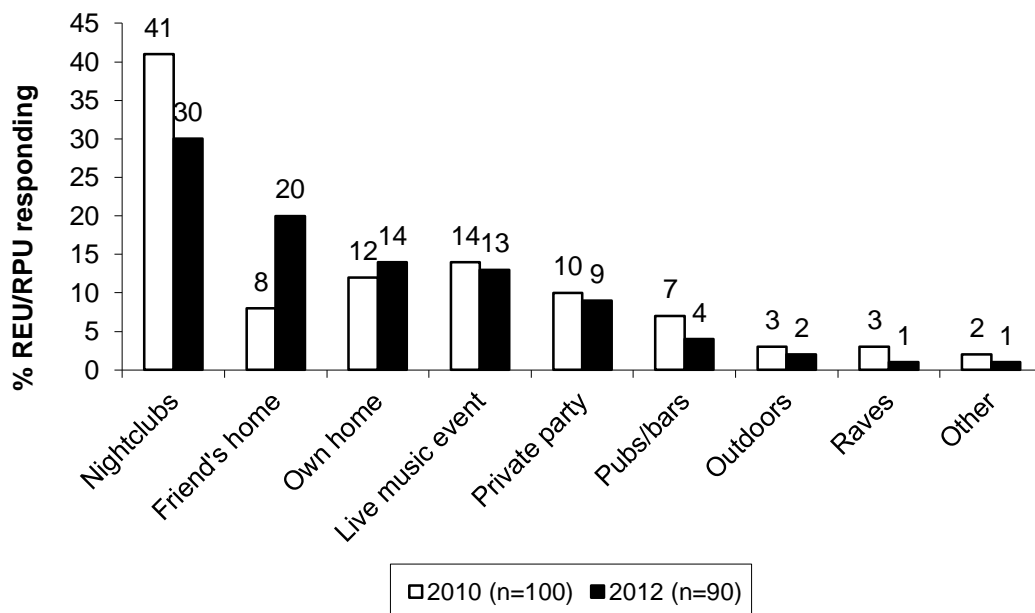
As in previous years, the majority of participants (92%, n=83) reported using other drugs in combination with ecstasy the last time they used it. The most commonly reported drugs used with ecstasy were alcohol (71% overall; 12% less than 5 standard drinks and 59% more than five standard drinks), tobacco (38%, n=34), cannabis (30%, n=27), pharmaceutical stimulants (13%, n=12), and crystal meth (7%, n=6).

About two-fifths (39%) 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 (26%, n=23), benzodiazepines (6%, n=5), alcohol (3% overall; 2% less than five standard drinks and 1% more than five standard drinks), and tobacco (3%, n=3).

4.2.3. Locations of ecstasy use

Participants were asked where they spent the most time intoxicated the last time they used ecstasy. As presented in Figure 1, ecstasy was used in both public (56%) and private settings (44%). The most popular private settings reported were at a 'friend's home' (20%), at 'own home' (14%) or at a 'private party' (9%). The most popular public settings reported were 'nightclubs' (30%), 'live music events' (13%), and 'pubs' (4%).

Figure 1: Last location where most time was spent intoxicated by ecstasy by REU/RPU, WA 2012

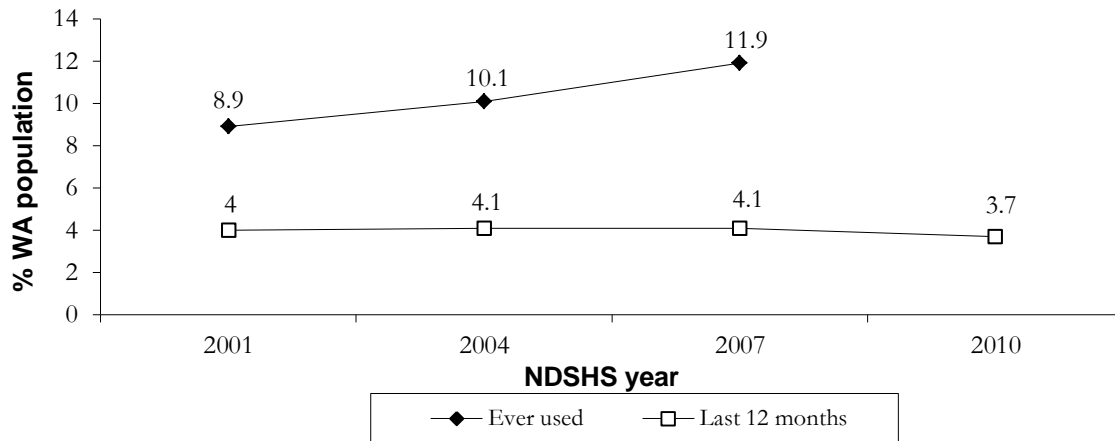


Source: EDRS REU/RPU interviews, 2010-2012

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 (AIHW, 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:

- Most KEs agreed that ecstasy continues to be used recreationally among young people.
- A KE, who works in a hospital setting, reported that young people in the 18-24 years age range continue to present to hospital emergency experiencing adverse ecstasy effects, particularly around the summer festival season. Another KE from a hospital setting reported that only seven people had presented to emergency that had reported consuming a drug sold as 'ecstasy' and this was over one festival weekend. This KE reported that he remembers these cases because "when they do come in they are bad". He reported that some complained of heart palpitations and chest pain.
- Another KE, who works in harm reduction in festival settings, reported that ecstasy is still being widely used by young people at festivals and that many are still experiencing adverse effects related to adulterated pills. This KE also reported that young people presenting with polydrug use is also a common problem, particularly mixing ecstasy and alcohol. The main issues that ecstasy users were reported to present with included overheating, anxiety, agitation and panic.
- A KE, who works in drug analysis, reported that they received a 20% increase in ecstasy samples this period, and commented that this indicates that people are still using ecstasy despite speculation that availability and use is declining in Australia.

4.2.5. Summary of ecstasy consumption

- The proportion reporting ecstasy as their favourite drug was 36% (39% for REU sample), comparable to 45% in 2010.
- The mean age of first ecstasy use was approximately 18 years, which has been consistent across survey years.
- When comparing the 2012 REU sample with the 2010 REU sample, the median number of days ecstasy was used in the preceding six-month period did not change from 10 days. The proportion reporting use of more than one ecstasy tablet per session also remained comparable, with 77% in the current REU sample, compared to 81% in the 2010 REU sample.
- The current REU sample used a median of 2 tablets in a typical session (range 1-4), comparable to 2.1 in the 2010 sample.
- Swallowing was the main route of administration (93%).
- There was a significant increase in both lifetime and recent use of powder and capsule forms of ecstasy, which could suggest that other forms of ecstasy are making their way into the WA ecstasy market.
- The vast majority of participants (92%) reported using other drugs in combination with ecstasy the last time they used it, most commonly alcohol, tobacco, pharmaceutical stimulants and crystal meth.
- About two-fifths (39%) of participants used other drugs to help them come down from ecstasy the last time they used it, most commonly cannabis and benzodiazepines.
- Ecstasy was used in both public (56%) and private settings (44%), most commonly at 'nightclubs' (30%) and 'friend's homes' (20%).
- Key experts commented that ecstasy use is common among young people, as are 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 (ABCI, 1999; ABCI, 2000; ABCI, 2001). Across Australia today, the powder traditionally known as 'speed' is almost exclusively methamphetamine rather than amphetamine. For example, in the 2006/07 financial year, of the 4,396 seizures of (non-phenethylamine) amphetamine-type seizures analysed for purity in Australia, 97.9% (by number) were methamphetamine rather than amphetamine (ACC, 2008).

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

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

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

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

4.3.1. Methamphetamine powder

Table 4 presents patterns of use of methamphetamine powder, or 'speed', since data collection began in WA in 2003. Approximately three-fifths of the sample (62%, n= 56) reported lifetime use of speed and over one-quarter (27%, n= 24) reported recent use. The average number of days speed was used in the preceding six months was four days.

The median amount of speed used in a 'typical' session was 0.5 grams and the median amount used in a 'heavy' session was also 0.5 grams. Among those who reported recent use of speed (n=24), 'snorting' was the most commonly reported route of administration (75%, n=18), followed equally by 'swallowing' and 'smoking' (each 38%, n=9), and then by 'injecting' (12.5%, n=3).

There were no significant changes in the proportions reporting lifetime or recent use of speed from 2010 to 2012. Reported quantity and frequency of use also appears stable (Table 4).

Table 4: Patterns of methamphetamine powder (speed) use among REU/RPU, 2003-2012

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
Ever used (%)	93	88	94	87	72	72	63	60	67	62
Used preceding six months (%)	83	78	85	65	46	38	37	38	44	27
Of those who had used										
Mean days used last 6 months	16	18	15	13	19	15	7	6	44	4
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)
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)

Source: WA EDRS REU/RPU interviews, 2003-2012

4.3.2. Methamphetamine base

In 2012, 8% (n=7) of the sample reported lifetime use of base and 1% (n=1) reported recent use. Base was used on a median of two days in the last six months.

The median amount used in a 'typical' session was one point and the median amount used in a 'heavy' session was two points. 'Smoking' was reported as the route of administration. No further analyses were performed for methamphetamine base due to the extremely small sample size (n=1).

4.3.3. Crystal methamphetamine

As shown in Table 5, rates of use for crystal methamphetamine increased in 2012, which ended an overall declining trend that had been seen since the WA EDRS commenced in 2003. In 2012, lifetime use of crystal significantly increased from 40% in 2010 to 58% in 2012 (95%CI -0.04, -0.31). However, when comparing the current REU sample with the 2010 REU sample, there was no significant increase in lifetime use of crystal (see Table 5), indicating that the significant increase could have been attributed to 2012 sampling differences (i.e., changes to selection criteria, see section 2.1). Therefore, it is unclear as to whether this finding represents a genuine significant increase in use, or whether this finding is the result of sampling differences. The former would support the prediction made in the 2010 EDRS report that if low ecstasy purity continues in WA there will be a shift away from ecstasy and toward other psychostimulant drugs like crystal methamphetamine.

Recent use of crystal increased from 22% in 2010 to 33% in 2012; however, this did not represent a significant increase. The average number of days crystal was used over the preceding six months was 10 days in 2012, which was again not significantly different to eight in 2010. When comparing the 2010 and 2012 REU samples, there was also no significant difference in the number of days crystal was used.

The median amount of crystal used in a 'typical' session remained at one point, and the median amount used in a 'heavy' session remained at two points. Of those who reported use of crystal in the preceding six months (33%), the most common route of administration remained as 'smoking', reported by 90% (n=27) compared with 82% in 2010. 'Snorting' remained as the second most common route of administration, reported by 30% (n=7) in 2012, compared to 41% (n=9) in 2010. 'Swallowing' was reported by 13% (n=4) compared to 23% (n=2) in 2010. 'Injecting' was reported by 18% (n=4) compared with 18% (n=4) in 2010.

Table 5: Patterns of crystal methamphetamine use among REU/RPU, 2003-2012

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
Ever used (%)	91	89	88	89	69	62	41	40	64	52	58*
Used last six months (%)	77	80	69	77	52	36	20	22	46	29	33
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
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 (.2-7)	1 (0.2-7)
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 (.2-14)	2 (0.2-14)

Source: WA EDRS REU/RPU interviews, 2003-2012

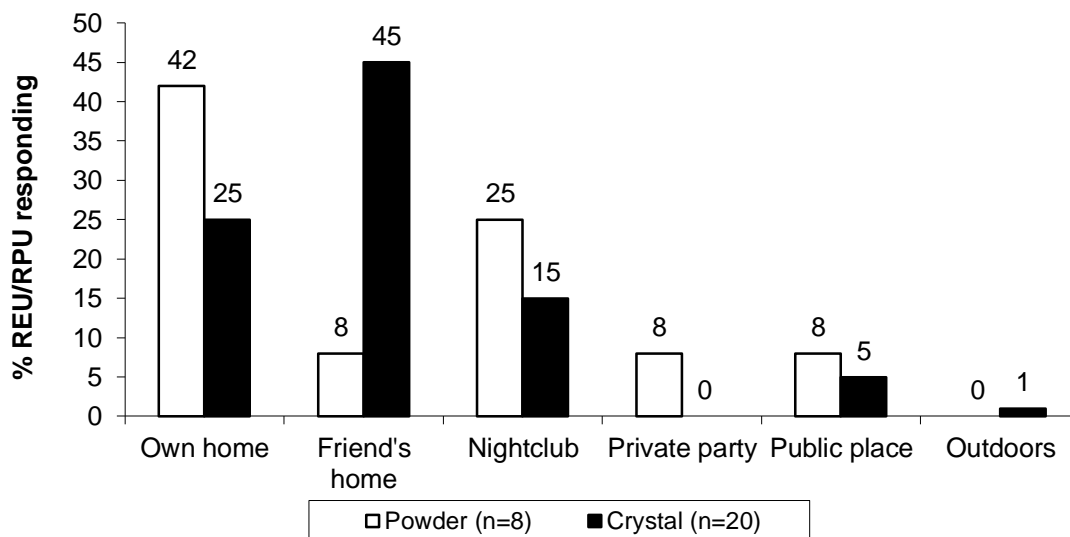
*indicates significant changes from the 2010 results according to 95% CI and p=.05

4.3.4. Last location of methamphetamine use

Participants who reported using any form of methamphetamine in the last six months were asked about the last locations where they spent most of their time under the influence.

Figure 3 presents data for the location where the most time was spent under the influence of speed and crystal on the last occasion of use. In 2012, the most common location spent under the influence of speed was 'own home' (42%, n=5), this was followed by 'nightclub' (25%, n=3), 'friend's home', 'private party' and 'public place' (each 8%, n=1). For crystal, the most common location where the most time was under the influence was 'friend's home' (45%, n=9), followed by 'own home' and 'nightclub' (each 25%, n=5), and then 'public place' and 'outdoors' (each 5%, n=1). Therefore, in 2012 private settings were by far the most common locations for last methamphetamine use. In 2010, the most commonly reported location of last methamphetamine use was a 'nightclub', reported by 27% of those commenting on speed and 33% of those commenting on crystal. In 2012, there were no respondents who commented on base.

Figure 3: Location of most recent powder and crystal methamphetamine use, 2012



Source: WA EDRS REU/RPU interviews, 2012

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 respondents reporting lifetime use and 2% reporting use in the last 12 months. WA continued to be the jurisdiction with the highest rates of recent use of (meth)amphetamine, with recent use reported by more than 3% of the population aged 12 years or older (AIHW, 2011a).

Key expert comments

- Most KEs reported that crystal methamphetamine was the main drug used by the drug users they had seen in the past six months. Most KEs also reported that it was the main drug they perceive to be most problematic at this point in time. Most KEs reported that crystal is most commonly smoked, but also snorted or injected.
- One KE, who works in a hospital setting, reported that there is an increase in young people using crystal methamphetamine because of an increasing availability, price, and the fact that it has become normalised among young people which is causing peer pressure. This KE also reported that young people are presenting to hospital services with aggression, anxiety, depression and early episode psychosis. Another KE from the WA ADIS supported this view, expressing concerns that more young people are using crystal methamphetamine now and that crystal methamphetamine availability is increasing.
- Two KEs, who work in hospital settings, reported that there was an increase in young people reporting injection as a route of administration for methamphetamine and this is creating problems due to lack of awareness of safe injecting practices. They noted that that young people are first being injected by 'friends'. Another two KEs, one who works in youth outreach and one from the WA ADIS, also reported an increase in injecting as a route of administration for methamphetamine.
- One KE, who works in nightclub security, reported that the form methamphetamine is taking is known as 'crack' among many WA users; however, this is not to be confused with crack cocaine. The KE was unclear on exactly what form of methamphetamine this was- powder, base or crystal. Another KE supported this view and several other KEs did not differentiate between different forms of methamphetamine in their fields.
- A KE also reported that methamphetamine users in nightclubs often exhibit highly aggressive and violent behaviour, and that it is extremely difficult to reason with them or subdue them when under the influence. He expressed concerns that it often takes significant force and police attendance to restrain these users, and believes that security guards should be armed with handcuffs for this purpose. Polydrug use with alcohol was also reported as common.

4.3.6.

Summary of methamphetamine consumption

Speed

- Almost two-thirds had used speed in their lifetime and about one-quarter had done so recently in the previous six months.
- Speed was used on a median of four days over the preceding six months and snorting was the most common ROA reported (75%).
- The frequency and quantity of use appeared to be stable from 2010 to 2012.

Base

- Only 8% of the sample had used base in their lifetime and 1% had done so in the previous six months.
- Base was used on a median of two days over the preceding six months and was primarily smoked (100%).
- No further analyses were performed due to the extremely small sample size.

Crystal

- Over half (58%) of the sample had used crystal in their lifetime. While this represented a significant increase from 2010 (40%), when comparing 2010 and 2012 REU samples no significant difference was found. Therefore, it is unclear as to whether this increase represents a genuine trend or whether it is the result of sampling differences.
 - Approximately one-third (33%) had used crystal in the preceding six-months, compared to 22% in 2010.
 - Crystal was used on a median of 10 days (12 days for REU sample) over the preceding six months and smoking was the most common ROA reported (90%), both comparable to 2010.
 - The median amounts used remained at one point for a typical session and two points for a heavy one.
- Speed and crystal were most commonly used in private settings, either at 'own home' or at a 'friend's home'.
 - Most KE considered crystal methamphetamine use to be the most problematic drug-related issue at present. KEs reported a concern over the significant impact use has on the physical and mental health of both the user and their significant others. KEs also expressed concerns about a perceived increase in the availability and use of crystal, particularly among young people.

4.4. Cocaine use

As shown in Table 6, 71% (n=64) of the sample reported lifetime use of cocaine and 31% (n=28) reported recent use. With the exception of last year's findings (see Caveat), this figure for lifetime use is the highest recorded since the WA EDRS commenced in 2003. This figure also marks a significant increase from 49% in 2010 (95%CI -0.08, -0.35). Further investigation comparing the 2010 and 2012 REU samples indicated that this increase was not due to sampling differences (i.e., changes to selection criteria, see section 2.1). There was, however, no significant difference in recent use of cocaine between 2010 and 2012.

Of those who reported use of cocaine in the preceding six months (n=28), the average number of days used in this period was four days. There was no significant difference in average number of days used between 2010 and 2012. The median number of days cocaine was used in this period was two (range=1-29), which remained unchanged from 2010.

Of those who reported recent use of cocaine (n=28), 'snorting' was the most commonly reported route of administration (100%), followed by 'swallowing' (29%). No participants reported 'smoking' or 'injecting' as a route of administration for cocaine use in the preceding six months. Fifteen participants who had used cocaine recently reported on the quantity used in grams. The median quantity reported for a 'typical' session was 0.5 grams, which was not significantly different to 2010. The median quantity reported for a 'heavy' session was one gram, which was the same as in 2010.

In 2012, cocaine was the third most commonly reported drug of choice, following ecstasy and cannabis, and was nominated by 16% of the sample. Of the 92% of the sample who reported using other drugs in combination with ecstasy, cocaine was reported in this context by only 1% (n=1).

Table 6: Patterns of cocaine use among REU/RPU, 2003-2012

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
Ever used (%)	44	36	57	55	56	66	52	49	82	72*	71*
Used last six months (%)	17	16	35	29	27	40	24	26	32	32	31
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
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)
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 9.5-3.5)	1.0 (0.25-3.5)

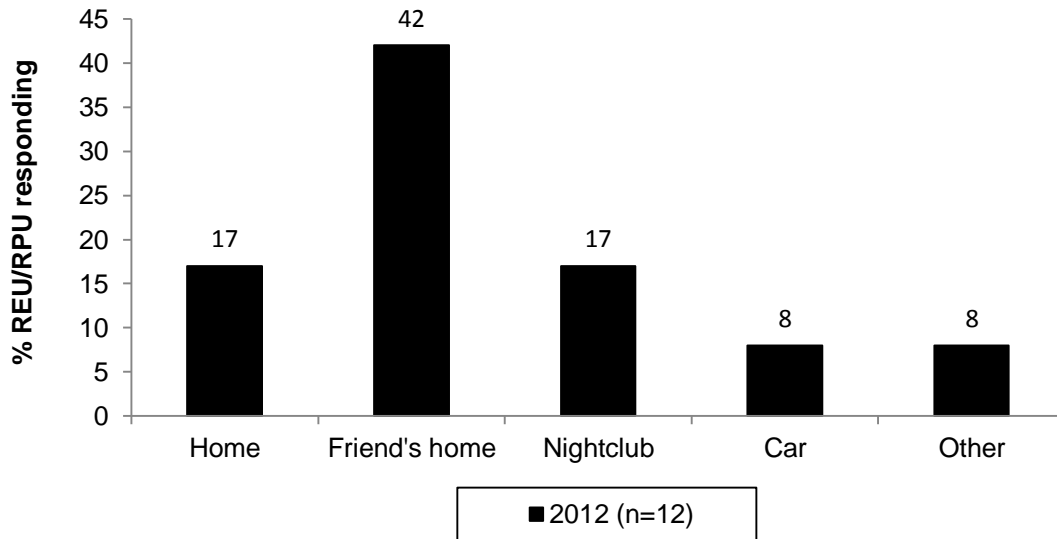
Source: WA EDRS REU/RPU interviews, 2003-2012

*indicates significant changes from the 2010 results according to 95% CI and p=.05

4.4.1. Last location of cocaine use

There were 12 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 'friend's home' (42%, n=5), followed by 'own home' and 'nightclubs' (each 17%, n=2). In 2010, 'nightclubs' were by far the most commonly reported location of last cocaine use (71%) followed by pub and own home (each 14%). However, the small numbers here suggest caution be applied in interpreting these differences.

Figure 4: Location of most recent cocaine use, 2012



Source: WA EDRS REU/RPU interviews, 2012

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% (AIHW, 2011a).

Key expert comments

- All KEs reported that they very rarely encounter cocaine use in their fields.
- One KE, who works in AOD counselling, reported that cocaine is too expensive for their clients and therefore use is very limited.
- Two KEs, one from law enforcement and one from nightclub security, reported that they had observed a decrease in cocaine use over the preceding six months, possibly reflective of availability.

4.4.3. Summary of cocaine consumption

- The majority of participants (71%) reported use of cocaine in their lifetime. This figure represents the highest recorded since the WA EDRS commenced in 2003 and also marks a significant increase from 49% in 2010. Further investigation of 2010 and 2012 REU samples indicated that this finding was not due to sampling differences.
- Almost one-third (31%) reported recent (previous six months) use, which remained comparable to 2010.
- 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 (100%).
- The frequency and quantities of cocaine use remained stable from 2010 to 2012.

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 among REU/RPU for the period 2003-2012. Lifetime use of ketamine remained comparable with 2010 data, reported by 18% in 2012 compared to 14% in 2010. Recent use of ketamine also remained comparable, reported by 3% in 2012, compared with 4% in 2010. Other data pertaining to ketamine use needs to be considered in the light of the very small number of participants able to provide information (n=3). Of the three participants who used ketamine in this period, the average number of days of use was approximately four in 2012, which compares to approximately three in 2010. The quantity of ketamine used has typically been measured and reported by participants in 'bumps'; however, in 2012 no participants reported use in 'bumps'. One participant reported the quantity of ketamine used in 'lines', with two lines being used in both a 'typical' and 'heavy' session. One participant reported using ketamine in grams with one gram being used in a 'typical' session and two grams in a 'heavy' session. One participant also reported quantity used in pills/tablets, with three pills being used in both a 'typical' and 'heavy' session. Of those participants who had used ketamine in the preceding six months, two reported 'snorting' and one reported 'swallowing' as the routes of administration.

Table 7: Patterns of ketamine use among REU/RPU, 2003-2012

Ketamine	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
Ever used (%)	25	21	25	14	22	21	18	14	0	18
Used last six months (%)	12	10	11	4	2	3	6	4	0	3
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
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 2003-2012

Based on two respondents

**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 works in drug analysis, reported that ketamine is not being detected in 'ecstasy' pills anymore but that they do see a little bit of ketamine diverted through veterinarian medicine in a chemical liquid form. In contrast, another KE, who works in festival settings, reported that some young people present to first aid services with symptoms consistent with the consumption of an ecstasy pill adulterated with ketamine.

4.5.2. Summary of ketamine consumption

- As found in 2010, only a small proportion reported lifetime use of ketamine (18%) and an even smaller proportion reported recent (previous six months) use (3%).
- Ketamine was used on a median of four days (i.e. less than monthly) over the preceding six months.
- Different forms of ketamine were reported to previous years, making comparison of quantities used difficult.
- Most KEs reported that ketamine use was very rarely encountered in their fields and that they did 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, et al., 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, et al., 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

In 2012, only 3% (n=3) of participants reported lifetime use of GHB and no participants reported recent use. This is consistent with 2010 results.

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 (ACC, 2007). Small paper squares ('tabs') are detached from these sheets and usually decorated with designs which can often be culturally specific to the user 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 evident from Table 8, lifetime use of LSD was reported by 57% of the current sample, which was not significantly different to 48% in 2010. Recent use of LSD was reported by 35%, which was again not significantly different to 33% in 2010. The average number of days LSD was used over the preceding six months was five days, which remained unchanged from 2010. The median number of days LSD was used was two days (range 1-20), which also remained unchanged from 2010.

The median amount of LSD used in a 'typical' session was 1.4 tabs in 2012, compared to one tab in 2010. The median amount used in a 'heavy' session was approximately 1.9 tabs in 2012, compared to 1.5 tabs in 2010. All participants who reported LSD use in the last six months reported 'swallowing' (100%, n=35) or sub-lingual use and no other routes of administration were reported in 2012.

In 2012, LSD was the equal fourth most commonly reported drug of choice, following ecstasy, cannabis, and cocaine, and was nominated by 9% of the sample. The proportion represents the same number of people who reported alcohol as their drug of choice. Of the 92% of the sample who reported using other drugs with ecstasy, LSD was reported in this context by 5% (n=4).

Table 8: Patterns of LSD use among REU/RPU, 2003-2012

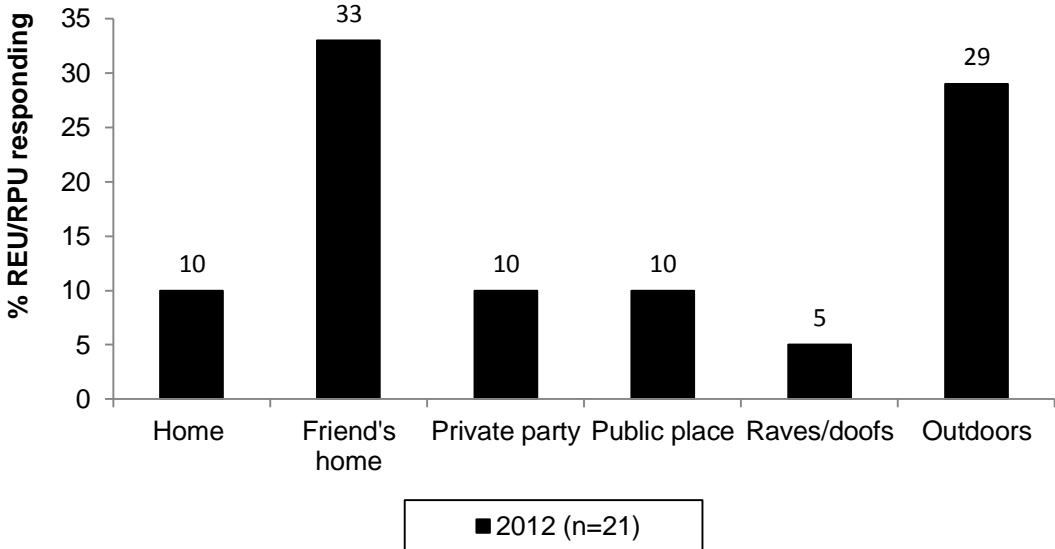
LSD	2003 N=100	2004 N=100	2005 N=100	2006 N=100	2007 N=100	2008 N=58	2009 N=100	2010 N=100	2011 N=28	2012 N=90
Ever used (%)	62	50	71	67	49	47	69	48	71	57
Used last six months (%)	22	11	35	25	23	21	31	35	36	33
Of those who had used in the preceding 6 months										
Mean days used last 6 months	3	3	5	3	5	8	6	5	6	5
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)
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)

Source: WA EDRS REU/RPU interviews, 2003-2012

* Significant at alpha level 0.05

From the current sample, 21 participants commented on the location where the most time was spent 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 spent under the influence of LSD (33%, n=7), followed closely by 'outdoors' (29%, n=6), and then by 'own home', 'private party' and 'public place' (each 10%, n=2). In 2010, the majority reported that last LSD use was either at 'own home' (41%) or a 'friend's home' (25%). In 2010, only 6% reported last use 'outdoors'.

Figure 5: Location of most recent LSD use, 2012



Source: WA EDRS REU/RPU interviews, 2012

Key expert comments

- Most KEs reported that LSD use is very rarely seen in their fields.
- One KE, who works in a hospital setting, reported that the past few months has seen an increase in people presenting to emergency that reported consuming a drug sold as LSD; however, most of the time polydrug use is involved.

4.7.2.

Summary of LSD consumption

- Over half (57%) of the current sample had tried LSD in their lifetime and about one-third had used it recently (in the previous six months).
- LSD was used on a median of 5 days (i.e. less than monthly) over the preceding six months.
- LSD was taken orally by all participants (sub-lingual).
- The most common locations of last LSD use reported were 'outdoors' and at a 'friend's home'.
- The use of LSD has remained fairly consistent across survey years.
- Most KEs reported that they had seen no noticeable changes in LSD use; however, one KE reported that there had been an increase in people presenting to hospital who had consumed LSD.

4.8. Cannabis use

As shown in Table 9, consistent with previous years, in 2012 nearly the entire sample (99%) of REU/RPU reported use of cannabis at some point in their lifetime. Rates of recent use were also similar across years, with 77% of the current sample reporting use of cannabis in the preceding six months. The average number of days cannabis was used in this period increased from 60 days in 2010 to 71 in 2012, however this increase was not significant. The median number of days cannabis was used in this period was 48, equating to approximately twice a week. In 2012, 16 participants reported daily use of cannabis compared to 19 participants in 2010.

Table 9: Patterns of cannabis use among REU/RPU, 2003-2012

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
Ever used %	99	97	99	100	96	100	99	99	100	99
Used last six months %	91	85	83	86	80	85	85	81	86	77
Of those who had used in preceding 6 months										
Mean days used last 6 months	61	69	5	77	75	49	81	60	113	71

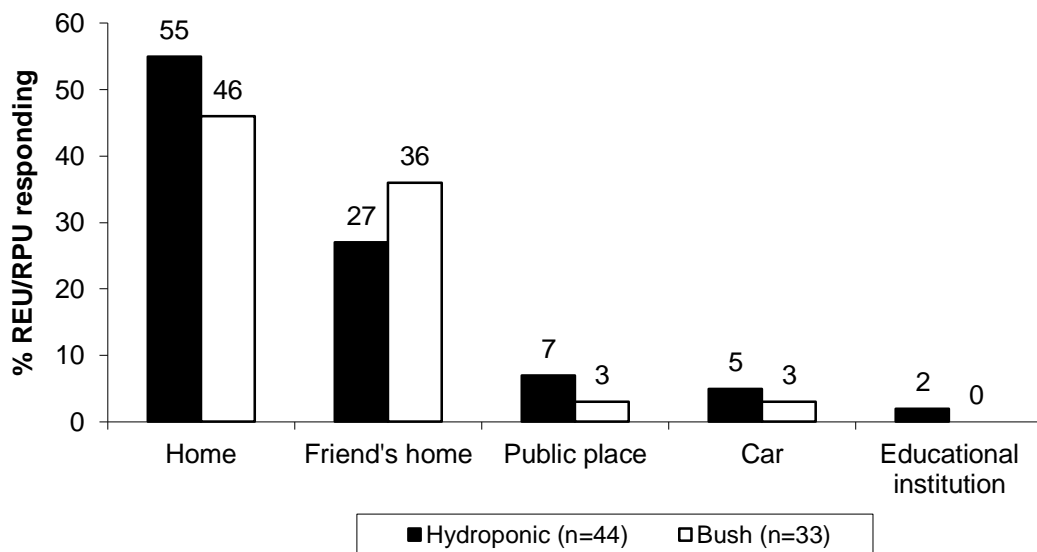
Source: WA EDRS REU/RPU interviews, 2003-2012

Among current REU/RPU, the median age of first cannabis use was 15 years (range 12-24). Of those who had used cannabis in the last six months (99%, n=68), 99% (n=68) reported 'smoking' and 40% (n=27) reported 'swallowing' as routes of administration. In 2012, participants were asked how much cannabis they consumed during their last session. Of those who reported on 'cones' (n=49), a median of three cones (range 1-30) were consumed, compared to two in 2010. Of those who reported on 'joints' (n=17), a median of two joints (range 0.5-3) were consumed, compared to one in 2010.

In 2012, cannabis was the second most commonly reported drug of choice, second only to ecstasy, and was nominated by 21% of the sample. While its popularity appears to have increased from 2010 (11%), this result does not represent a significant increase. Of the 92% of the sample who reported using other drugs with ecstasy, cannabis was reported in this context by 39% (n=27). Among those reporting use of other drugs during 'comedown' from ecstasy (39%), 66% (n=23) reported using cannabis in this context.

Participants were asked to report on where they spent the most time intoxicated last time they used cannabis. The greatest proportion of those who responded reported that the most time was spent at 'own home' for both hydroponic (55%, n=24) and bush (56%, n=15). The second most common location spent intoxicated was at a 'friend's home', again for both hydroponic (27%, n=24) and bush (36%, n=12). A full breakdown is presented in Figure 6.

Figure 6: Location of most recent cannabis use, 2012



Source: WA EDRS REU/RPU interviews, 2012

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. (AIHW, 2011a).

Key expert comments

- Most KE reported that cannabis is very widely used across WA. One KE nominated cannabis as the most common drug encountered in their field and three nominated it as the second most common.
- KEs reported that both hydro and bush forms of cannabis continue to be used.
- Two KEs, who work in hospital settings, reported that cannabis use continues to have a significant impact on mental health of users.
- A KE, who works in youth outreach, reported that three in five young people in remand had recently used cannabis.

4.8.2. Summary of cannabis consumption

- Almost the entire sample (99%) had tried cannabis in their lifetime and about three-quarters had used it recently.
- Cannabis was used on a median of 48 days (i.e. twice per week) over the preceding six months.
- The use of cannabis has remained relatively stable across survey years.
- KEs reported that cannabis use continues to be one of the most common problems 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 REU/RPU sample, with similar proportions to previous years (see Table 2). The median age of first use of alcohol was 14 (as found in 2006, 2007, 2008, 2009 and 2010), with a range of seven to 19 years. Of those who had used alcohol in the six months preceding the interview, use was a median of 48 days (range 1-180), which equates to approximately twice a week. Six participants reported drinking alcohol daily.

Key expert comments

- KEs in all fields (health, law enforcement, entertainment) and settings (hospitals, first aid, treatment centres, nightclubs/pubs and festivals) reported that alcohol use is by far the most widespread and problematic drug for them to manage.
- KEs from hospital settings reported that alcohol accounts for over 60% of AOD cases. They also reported that use is 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 include 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.
- A KE from law enforcement reported that there has been an increase in discount liquor stores in WA, and that this encourages many consumers to 'buy in bulk'. He expressed concerns over these bulk buying behaviours as he reported that this generally leads to an increase in use, as when people have alcohol at hand they are more likely to drink it than save it for later. Therefore, binge drinking is more likely to occur.
- A KE from nightclub security reported concern over an increasing number of young females binge drinking to the point of either passing out, becoming aggressive, running into the street and/or generally putting their safety at risk.
- Two KEs in nightclub security also expressed ongoing concern regarding 'pre-loading' or 'pre-drinking' causing patrons to present at pubs/clubs already intoxicated. One KE reported that he believed there had been an increase in 'pre-drinking' as a consequence of an increase in alcoholic drink prices in pubs/clubs. He reported that drink prices have increased in response to alcohol taxing issues.

4.9.2. Tobacco

Rates of tobacco use among EDRS samples have been consistently high across survey years. In 2012, almost the entire sample (96%, n=86) reported tobacco use at some point in their lifetime. This compares to 84% reporting lifetime use in 2010. Approximately two-thirds of the current sample also reported recent use (67%, n=60) of tobacco; this is the same proportion as those reporting recent use in 2010. Comparable with previous years, in the current sample the median age of first use of tobacco was 16 years (range 7-30). Among those that had used tobacco in the preceding six months, the median number of days used during this period was 158 (range 2-180), compared to a median of 90 days in the 2010 sample and 180 days in the 2009 sample. No significant difference was found in the number of days of use between 2010 and 2012. In 2012, 48% (n=29) of those that had used tobacco in the last six months were daily smokers. Therefore, almost one-third (32%, n=29) of the entire sample were daily smokers. There was a similar proportion of daily smokers in the 2010 sample (30%, n=30).

4.9.3. MDA

MDA (3,4-methylenedioxyamphetamine) is part of the phenethylamine family and like ecstasy is classed as a stimulant hallucinogen. Rates of MDA use among WA EDRS samples have consistently been low. In 2012, lifetime use of MDA was reported by 17% (n=15) of the sample, which was not significantly different to 2010 findings (11%, n=11). Recent use was reported by 4% (n=4) of the current sample, which was again not significantly different to 2010 findings (5%, n=5). Of those who had used recently, MDA was used on a median of one day during this period, compared to two days in 2010. All four participants reported 'swallowing' as the route of administration. Participants were not asked to report on price, purity and availability information for MDA due to consistently low numbers of users in the sample.

4.9.4. Pharmaceutical stimulants

Pharmaceutical stimulants have been included as a separate drug class since the 2005 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.

In 2012, almost the entire sample (93%) reported pharmaceutical stimulant use at some point in their lifetime. While this doesn't represent a significant increase from 2010 (84%), this is the highest rate seen since the EDRS commenced in 2003. Of those reporting lifetime use, illicit use was reported by 98% (n=82) and 10% (n=8) reported licit use. The median age for first illicit use was 18 years and for licit use was 16 years.

In 2012, approximately two-thirds (68%, n=61) reported pharmaceutical stimulant use in the preceding six months. Again, this doesn't represent a significant increase from 2010 (58%). Of those reporting recent use of pharmaceutical stimulants, 97% reported illicit use (n=58), compared to 2% reporting licit use (n=2).

Table 10 presents a comparison of those reporting recent illicit versus licit use of pharmaceutical stimulants. Illicit pharmaceutical stimulants were used on a median of six days in the six months preceding the interview, which equates to approximately monthly use. This was the same median number of days used found in the 2010 sample. In regards to illicit use, the median amount used in a 'typical' session was three tabs (range 1-10) and four tabs in a 'heavy' session (range 1-30). For licit use, the median amount used in a 'typical' session was four and a half tabs (range 3-6) and 6.5 tabs for a 'heavy' session (range 6-7). For those who used pharmaceutical stimulants illicitly (n=58), almost all reported 'swallowing' (98%), over half reported 'snorting' (55%), and a couple reporting 'smoking' (3%) as a route of administration. For those who used pharmaceutical stimulants licitly (n=2), both reported 'swallowing' as a route of administration and one also reported 'snorting'. 'Injecting' of pharmaceutical stimulants was not reported in 2012. 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.

Table 10: Comparison of recent illicit use of pharmaceutical stimulants reported by REU/RPU, 2012

Use of pharmaceutical stimulant	Illicit (n=58)	Licit (n=2)
Days used last six months (median)	6	96
Amount typically used (median tabs)	3	4.5
Amount heavy session (median tabs)	4	6.5
Route of administration:		
Swallowed	98%	100%
Snorted	55%	50%
Smoked	3%	0%
Injected	0%	0%

Source: WA EDRS REU/RPU interviews, 2012

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 56% (n=50) of the current sample, which did not significantly change from 44% (n=44) in 2010. Of those reporting lifetime use, 100% (n=50) reported lifetime illicit use and 14% (n=7) also reported lifetime licit use of benzodiazepines. The median age of first licit use was 18 years and illicit use was 20 years.

Recent use (licit or illicit) of a benzodiazepine was reported by 31% (n=28) in 2012, which did not significantly change from 28% in 2010. Of those reporting recent benzodiazepine use, 79% (n=22) reported illicit use and 21% (n=6) reported licit use. For illicit use, benzodiazepines were used on a median of eight days, or on a mean of 14 days (range 2-48), during this period. For licit use, benzodiazepines were used on a median of two days, or on a mean of four days (range 1-20).

4.9.6. Anti-depressants

Use of anti-depressants was also divided into licit and illicit use. Lifetime use of any (licit or illicit) anti-depressant was reported by 29% (n=25) of the current sample, compared to 24% (n=24) in 2010. Of those reporting lifetime use, 69% (n=18) reported lifetime licit use of anti-depressants, compared to 42% (n=7) reporting lifetime illicit use of anti-depressants. Thus, unlike pharmaceutical stimulants and benzodiazepines that were mostly used illicitly, antidepressant use was predominantly licit. The median age of first licit use was 17 years (range 14-32) and the median age of first illicit use was 22 years (range 15-28).

Recent use (licit or illicit) of an anti-depressant was reported by 8% (n=7) of the current sample, which did not significantly change from 10% (n=10) in 2010. Among those reporting recent use, six participants reported licit use and one participant reported illicit use. For licit use, anti-depressants were used a median of 180 days during this period (range 4-180), with all six participants reporting daily use. For illicit use, anti-depressants were used on a median of three days (range 3-3).

4.9.7. Inhalants

REU/RPU were asked about their use of the inhalants amyl nitrate and nitrous oxide (see Table 2). In 2012, lifetime use of amyl nitrate was reported by 24% (n=22), which did not significantly change from 20% in 2010. The median age of first use of amyl nitrate was 20 years (range 16-24). Recent use of amyl nitrate was reported by 10% (n=9), which compares to 5% in 2010. Amyl nitrate was used on a median of one day (range 1-6) during this period. The amounts used in a 'typical' session have not been recorded since the 2009 EDRS.

Throughout survey years, nitrous oxide has consistently been the more popular inhalant of use. In 2012, lifetime use of nitrous oxide was reported by 53% (n=48), which did not significantly change from 39% in 2010. The median age of first use of nitrous oxide was 18 years (range 13-28). Recent use was reported by 26% (n=23) of the current sample, compared to 16% in 2010. Nitrous oxide was used on a median of two days (range 1-40) during this period. The median amount used in a 'typical' session was 10 bulbs (range 1-40) and the median amount used in a 'heavy' session was 13 bulbs (range 2-250 bulbs).

4.9.8. Heroin and other opiates

Heroin

Rates of heroin use among EDRS samples have been consistently low across survey years. Of the current sample, 6% reported lifetime use of heroin, which was not significantly different from the 4% in 2010. The median age of first use was 19 years (range 17-25), compared to 18 years in 2010. Among the five participants who reported lifetime use of heroin, four reported having ever injected, two reported ever 'smoking', and one reported ever 'snorting' the drug.

In 2012, only one participant reported use of heroin in the preceding six months, which was comparable to three participants in 2010. Heroin was used a median of one day during this period, with injecting the only route of administration reported.

Methadone and buprenorphine

As with heroin, rates of methadone and buprenorphine use have been consistently low across survey years. In 2012, there were no significant changes in either lifetime or recent use of methadone or buprenorphine, and consistent with previous years these numbers remained low (see Table 2). Of the current sample, 2% (n=2) reported lifetime use of methadone, which was comparable to 3% in 2010. The median age of first use of methadone was 26 years (range 19-32), compared to 22 years in 2010. Among those reporting ever using methadone (n=2), one reported 'injecting' and one reported 'swallowing' as the route of administration. In 2012, no participants reported recent use of methadone.

In 2012, 3% (n=3) reported lifetime use of buprenorphine, compared to 2% in 2010. The median age of first use of buprenorphine was 19 years (range 18-34) compared to 26 years in 2010. Among those reporting ever using buprenorphine, one participant reported 'injecting' the drug and the remaining two reported 'swallowing' as the route of administration. In 2012, no participants reported recent use of buprenorphine.

Other opiates: illicit and licit

Use of 'other opiates' was divided into illicit and licit use for the first time in the 2009 EDRS. This drug class includes morphine, pethidine, oxycodone and various preparations containing codeine. Of the current sample, almost half (46%, n=41) of participants reported lifetime use of 'other opiates', which significantly increased from 27% in 2010. Of these, 80% (n=33) reported illicit use and 31% (n=14) reported licit use. The median age of first use was 21 years (range 17-46) for licit use and 19 years for illicit use (range 15-29).

In 2012, one-fifth (20%, n=18) of the sample reported use of 'other opiates' in the preceding six months, which did not significantly change from 10% in 2010. Of these, 28% (n=5) reported licit use and 72% (n=13) reported illicit use. The median number of days used in this period was two days for illicit use (range 1-12) and five days for licit use (range 1-60). Of the 13 recent opiate users, the most commonly reported route of administration was 'swallowed' (69%), followed by 'snorted' (23%), 'injected' (15%) and then 'smoked' (8%).

Over-the-counter codeine

For the first time in 2009, REU were asked about their use of over-the-counter codeine. In 2012, lifetime use of over-the-counter codeine was reported by 20% of participants, compared to 29% in 2010. The median age of first use was 17 years (range 15-24). Recent use of over-the-counter codeine was reported by 14% of the current sample, compared to 22% in 2010. Of the 13 participants who reported recent

use, all reported 'swallowing' (100%) and one reported 'snorting' (8%) as routes of administration. Only one participant (8%) reported using over-the-counter codeine for use other than to relieve pain.

Key expert comments

- Two KEs reported that heroin and other opiates were the most problematic drugs during this period. The KEs reported that the main problems related to use of these drugs were overdoses and issues with dependency. KEs reported that injection was the main route of administration.
- A KE, who works in nightclub security, reported that an increase in the use of prescription pain killers like OxyContin is becoming a big problem among certain 'alternative' subgroups of young clubgoers. The KE reported that this type of drug use is becoming common in 'alternative' music venues. It was also reported that OxyContin use is more common among females than males. The KE reported that some of problems he has encountered in his field, in relation to this type of drug use, include nose bleeds, loss of consciousness and stroke.

4.9.9. Hallucinogenic mushrooms

In 2012, the proportion of participants reporting lifetime use of 'magic' mushrooms significantly increased, with 70% reporting lifetime use in 2012 compared to 43% in 2010 (95%CI -0.13, -0.40). The median age of first use was 19 years (range 13-28). The proportion reporting recent use also significantly increased in 2012, with 26% reporting use in the preceding six months compared to 12% in 2010 (95%CI -0.02, -0.25). Further investigation comparing the 2010 and 2012 REU samples indicated that these significant increases were not due to sampling differences (i.e., changes to selection criteria, see section 2.1). With the exception of last year (see Caveat), this represents the highest rates of both lifetime and recent use of mushrooms seen since the EDRS commenced in 2003. For those who reported recent use, mushrooms were used on a median of one day (range 1-5), which remained unchanged from 2010. All participants reported 'swallowing' as the route of administration.

Key expert comments

- A KE commented that 'magic' mushroom use is very common among young people who travel overseas on holiday to Bali, Indonesia, as they are very easy to obtain at this holiday destination.

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 recreational use. This drug class includes cold and flu medication containing pseudoephedrine. In 2012, 8% (n=7) reported lifetime use of over-the-counter stimulants, a significant decrease from 36% in 2010 (95%CI 0.39, 0.17). The median age of first use was 19.5 years (range 16-23). From the current sample, only 2% (n=2) reported use of over-the-counter stimulants in the preceding six months, a significant decrease from 26% in 2010 (95%CI 0.33, 0.14). During this period, over-the-counter stimulants were used on a median of 11 days (range 10-12). All participants reported 'swallowing' as the route of administration. It should be noted that, given the extremely small sample size, findings for over-the-counter stimulants should be interpreted with caution.

4.9.11. Steroids

For the first time in 2010, REU were asked to report on steroid use. Consistent with previous years, the proportion of REU/RPU reporting steroid use remained extremely low. In 2012, only two participants (2%) reported using a steroid at some point in their lifetime, while only one (1%) reported using it recently. Steroids were used on a median of seven days in the six months preceding the interview. Both 'injected' and 'swallowed' were reported as routes of administration. Again, given the extremely small sample size, findings for steroids should be interpreted with caution.

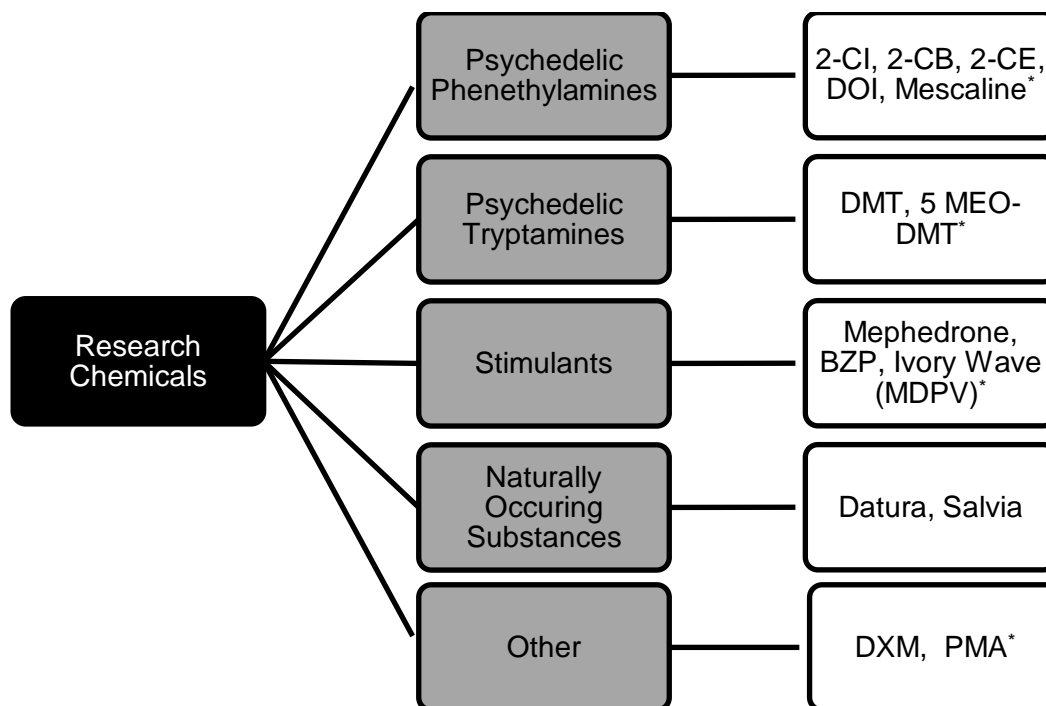
Key expert comments

- A KE, who works in nightclub security, reported that there are male subgroups of partygoers that use steroids, and that they usually attend certain bars and clubs in the Subiaco area. The KE reported that they often exhibit aggressive, antisocial behaviour and engage in polydrug use with methamphetamines and alcohol. Steroid use was also reported to be more common in certain ethnic groups.

4.10. Emerging psychoactive substance (EPS) use

From 2010 onward, the EDRS attempted to systematically investigate a group of drugs known as 'research chemicals' (also known as analogues, legal highs, herbal highs, party pills). These drugs can be classified as outlined in Figure 7.

Figure 7: Research chemicals investigated by the EDRS



*For abbreviations, see list on page vii.

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: Emerging psychoactive substances

Street name	Chemical name	Information on drug	Information on use and effects
2-CI	2,5-dimethoxy-4-iodophenethyl-amine	A psychedelic drug with stimulant effects	A standard oral dose is between 1-25mg. Recent reports suggest that 2-CI is slightly more potent than the closely related 2-CB.
2-CB	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.
2-CE	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
5MEO-DMT	5-methoxy-N,N-dimethyltryptamine	A naturally occurring psychedelic tryptamine present in numerous plants	It is found in some traditional South American shamanic snuffs and sometimes in

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
		and in the venom of the <i>Bufo alvarius</i> toad	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
Ivory wave or 'bath salts'	3,4-methylenedioxypropylone or MDPV	A cathinone derivative.	More potent than other cathinones. Lidocaine (a common local anaesthetic) is frequently used as a cutting agent, to give users the numbing sensation in the mouth or nose which is associated with drugs of high purity

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
			(e.g. high-purity 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 innoxia</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 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

⁷ Drugscope:

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

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

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

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

Street name	Chemical name	Information on drug	Information on use and effects
			last longer and are more intense. ¹¹
LSA	<i>α</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.

The EDRS began to systematically investigate emerging psychoactive substances (EPS) in 2010. With the exception of a few EPS, reported use across years has been low. In 2012, the most common EPS ever used among Perth participants were synthetic cannabinoids (44%), DMT (32%), mephedrone (16%) and BZP (14%). The most common EPS used recently were DMT (22%) and synthetic cannabinoids (18%).

In 2012, there were some significant changes in rates of EPS use. There were significant declines in reported BZP use, with lifetime use declining from 37% in 2010 to 14% (95%CI 0.33, 0.10) in the current sample, and recent use declining from 25% to just 1% (95%CI 0.33, 0.15). In contrast, there were significant increases in reported DMT use, with lifetime use increasing from 13% in 2010 to 32% (95%CI 0.07, 0.31) in the current sample, and recent use increasing from 8% in 2010 to 22% (95%CI 0.07, 0.31). There was also a significant decline in recent use of mephedrone, with 16% reporting use in 2010 compared to just 3% of the current sample (95%CI 0.13, -0.01); however, lifetime use of mephedrone did not significantly change across years.

A complete breakdown of emerging psychoactive drugs used among Perth REU/RPU is presented in Table 12.

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

Table 12: Lifetime and recent use of emerging psychoactive substances (EPS), WA 2010-2012

EPS	Lifetime and recent use	2010 N=100	2011 N=28	2012 N=90
2C-I	ever used (%)	9	4	3
	used last 6 months (%)	1	0	1
2C-B	ever used (%)	5	14	8
	used last 6 months (%)	2	7	3
2C-E	ever used (%)	0	4	1
	used last 6 months (%)	0	4	0
DOI	ever used (%)	0	0	0
	used last 6 months (%)	0	0	0
Mescaline	ever used (%)	7	14	6
	used last 6 months (%)	4	4	1
5MEO-DMT	ever used (%)	4	4	1
	used last 6 months (%)	1	0	0
DMT	ever used (%)	13	40	32*
	used last 6 months (%)	8	25	22*
Mephedrone	ever used (%)	19	18	16
	used last 6 months (%)	16	14	3*
BZP	ever used (%)	37	7	14*
	used last 6 months (%)	25	7	1*
MDPV	ever used (%)	0	0	2
	used last 6 months (%)	0	0	1
Datura	ever used (%)	4	7	4
	used last 6 months (%)	0	0	1
Salvia	ever used (%)	-	18	11
	used last 6 months (%)	-	11	3
DXM	ever used (%)	7	21	11
	used last 6 months (%)	3	4	2
PMA	ever used (%)	7	4	1
	used last 6 months (%)	0	0	0
Synthetic cannabinoids	Ever used (%)	-	32	44
	Used last 6 months (%)	-	32	18

Source: WA EDRS REU/RPU interviews, 2010-2012

*indicates significant changes from the 2010 results according to 95% CI and p=.05

Key expert comments

- Most KEs reported encountering the use of emerging psychoactive drugs (EPS) in their field during the preceding six months.
- Five KEs reported that EPS use is generally increasing, and that this includes both legal and illegal substances.
- Two KEs, who work in hospital settings, reported that they had seen multiple cases of polydrug use with alcohol and 'legal/herbal highs'.
- A KE, who works in drug analysis, reported that new synthetic drugs are the most problematic drugs for them to manage at present, particularly synthetic cannabis and cathinones such as MDPV or 'bath salts'. It was reported that this is due to the volume and rate of new synthetics presenting for testing (approximately one per week).
- Two KEs, in counselling settings, reported that they have seen Kronic use leading to mental health problems in some of their clients.
- A KE, from law enforcement, reported that MDPV or 'bath salts' is being seen in eastern states but is not common in WA. They also reported that analogue laws regarding EPS are becoming an increasing problem. The same key expert reported that in the preceding six months two local DMT labs had been detected. He noted that the manufacturers were adding DMT to LSD, and that these labs indicate that a WA market exists for DMT.
- A KE, who works in festival settings, reported that an increasing number of festival goers are presenting to first aid that have consumed a 'herbal' or 'legal' high and are experiencing adverse effects.
- A KE, who works in crowd control at festivals, also reported that patrons at electronic music festivals are not as easy to manage as they were in previous years when people mainly consumed ecstasy. The KE reported that people are now consuming 'designer drugs' and mixing them with alcohol, and that this leads to unpredictable effects and makes them extremely difficult to control. This KE also reported that DMT is being used as an alternative to ecstasy among some regular ecstasy users.

4.10.1.

Summary of other drug use

- Every participant reported the use of alcohol at some point in their lifetime and 96% had used it recently.
- Key experts reported that alcohol continued to be one of the most problematic drugs among REU/RPU.
- Almost all participants (96%) reported lifetime tobacco use and 67% reported recent use.
- Consistent with low rates in previous years, lifetime use of MDA was reported by 17% and recent use was reported by 4%.
- Almost the entire sample (93%) reported the use of pharmaceutical stimulants in their lifetime and 68% reported recent use. The vast majority of this use was illicit.
- Lifetime use of any anti-depressant was reported by 29% and recent use was reported by 8%. The majority of this use was licit.
- Lifetime use of amyl nitrate was reported by 24% and 10% reported recent use.
- Nitrous oxide appeared to be the more popular inhalant with 53% reporting lifetime use and 26% reporting recent use.
- Consistent with previous years, the use of heroin was uncommon with 6% reporting lifetime use and only one participant (1%) reporting recent use.
- Lifetime use of 'other opiates' significantly increased from 27% in 2010 to 46% in 2012. Recent use was reported by 20%, which did not significantly increase from 10% in 2010.
- The proportion reporting lifetime and recent use of psilocybin mushrooms significantly increased from 2010, marking the highest rates seen since the EDRS commenced. Lifetime use was reported by 70% (vs. 43% in 2010) and recent use was reported by 26% (vs. 12% in 2010).
- The use of over the counter stimulant products significantly declined from 36% in 2010 to just 8% in 2012. Accordingly, recent use also significantly declined from 26% in 2010 to just 2% in 2012.
- Consistent with previous years, steroid use was extremely uncommon in this group with only two participants reporting lifetime use and one reporting recent use.
- The most common emerging psychoactive substances (EPS) ever used were synthetic cannabinoids (42%), DMT (32%), mephedrone (16%) and BZP (14%).
- As in previous years, reported recent use of EPS has remained low in 2012, with the exception of DMT (22%) and synthetic cannabinoids (18%).
- While there were significant decreases in lifetime and recent use of BZP, there were significant increases in lifetime and recent use of DMT. There was also a significant decrease in recent use of mephedrone.
- KEs reported that they believe EPS use is increasing among recreational drug users in WA and that EPS use will be increasingly difficult to manage.

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

5.1. Ecstasy

5.1.1. Price

In 2012, 87 participants reported on the price of ecstasy tablets in Perth, 12 participants reported on the price of ecstasy capsules, and two participants reported on the price of ecstasy powder. The median price per ecstasy tablet and perceived price changes across data collections in WA are presented in Table 13. In 2012, the median price of an ecstasy tablet was \$35 (range 20-50), which is consistent with recent years. Bulk purchases tended to be cheaper, with 10 tablets costing a median of \$32.50 per tablet (n=45), 20 tablets costing a median of \$30 (n=14), 50 tablets costing a median of \$28 (n=16), and 100 tablets costing a median of \$25 (n=24). In 2012, more than half of the sample (57%, n=51) reported that the price of ecstasy over the preceding six months was 'stable', followed by smaller proportions nominating that price had 'increased'(10%, n=9), 'decreased' (8%, n=7) and 'fluctuated' (8%, n=7). Of those who commented on the price of ecstasy capsules, the median price was also \$35 (range 20-50), which has been consistent since 2009. Of the two participants who were able to comment on the price of ecstasy powder, one participant reported paying \$60 and the other participant reported paying \$400; however, both were uncertain of the quantity they received for these amounts.

Table 13: Price of ecstasy tablets purchased by REU/RPU and price variations, 2003-2012

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
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)
Price change:										
Increased (%)	10	4	5	6	11	17	9	18	4	10
Stable (%)	68	62	66	61	59	48	52	56	57	57
Decreased (%)	12	19	22	19	16	19	25	18	14	8
Fluctuated (%)	6	13	7	12	9	10	9	5	11	8
Don't know (%)	4	2	-	2	5	5	5	3	14	18

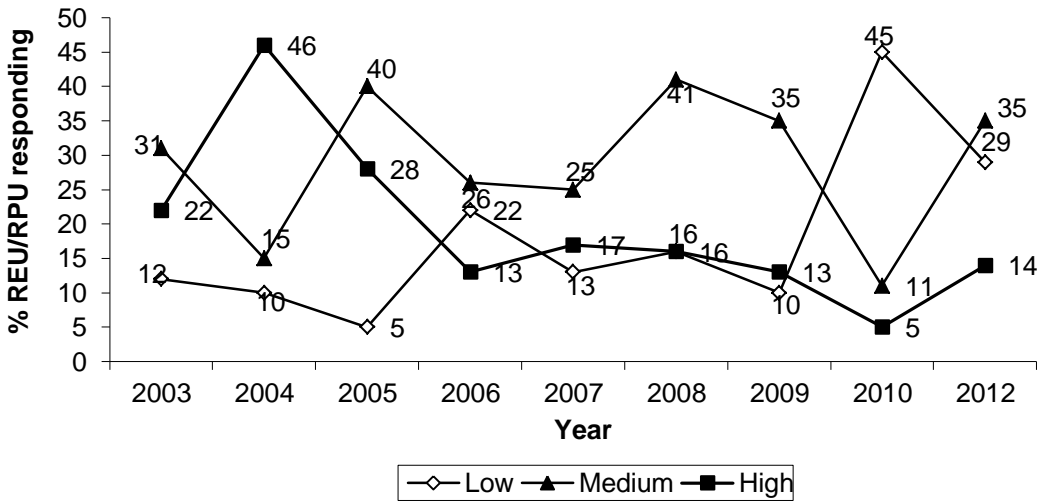
Source: WA EDRS REU/RPU interviews, 2003-2012

Data obtained from the ACC indicates that, in WA during 2010/11, a single tablet or capsule of MDMA costs between \$18 and \$45. The price per tablet when purchasing between 2 and 24 tablets was reported to cost between \$30 and \$35, when purchasing between 100 and 999 tablets cost between \$13 and \$20, and when purchasing over 1,000 tablets cost between \$12 and \$19 (ACC, 2012).

5.1.2. Purity

As shown in Figure 8, in 2012 the greatest proportion of participants (35%) rated the current purity of ecstasy as ‘medium’, unlike in 2010 when ‘low’ was most commonly reported by participants (45%). After ‘medium’, participants rated current purity of ecstasy as ‘low’ (29%), ‘fluctuates’ (23%) and then ‘high’ (14%).

Figure 8: User reports of current ecstasy purity, 2003-2012



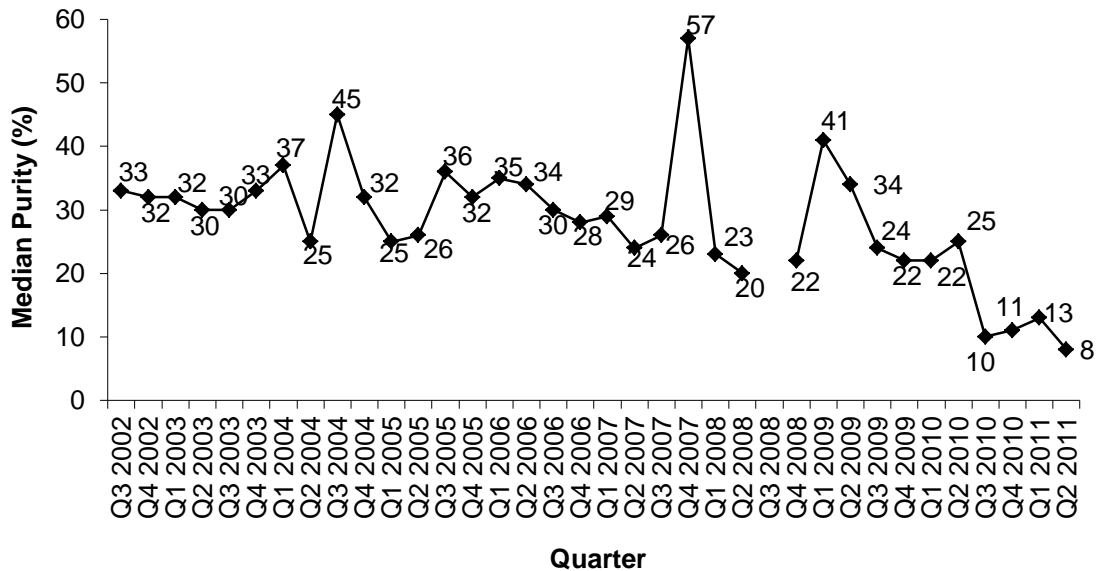
Source: WA PDI/EDRS REU/RPU interviews, 2003-2012

Participants were asked about perceived changes in the purity of ecstasy in the six months preceding the interview. In 2012, perceptions during this period were mixed. Almost a third (30%) reported that purity was ‘increasing’; almost a third (29%) reported that purity was ‘stable’, and almost a third (29%) reported that it was ‘fluctuating’. While ‘decreasing’ was nominated by the highest proportion in 2010 (45%), it was nominated by the smallest proportion in 2012 (13%). Overall, findings suggest that purity of ecstasy in the Perth drug market is generally perceived as low to medium; however, there are indications that that purity may be increasing. This view is consistent in both subjective purity ratings and purity change perceptions.

While purity 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). Purity levels during 2010/11 ranged between 8% and 13%. As evident in Figure 9, this period represents the lowest median purities of ‘ecstasy’ recorded to date, and continues a trend of declining purity that has been seen since early 2009. These figures are consistent with user perceptions of low ecstasy purity reported in the 2011 EDRS data collection period. It will be interesting to see whether apparent changes in user perceptions of

ecstasy purity during the current data collection period are reflected in higher purity of seized samples during the 2011/12 period.

Figure 9: Median purity of phenethylamines seizures in WA by quarter, July 2002 to June 2011



Source: ACC

Key expert comments

- A KE, who works in drug analysis, reported that during this period there was a decrease in purity of 'ecstasy' tablets from 25% to 15%, and that the proportion of tablets containing any MDMA was low. The KE reported that the last five years has witnessed this decreasing trend. It was reported that in the past 12 months tablets tested contained a variety of substances including methorphan, cathinones like MDPV, methylcathinone, fleuroamphetamine, and 2C-I and 2C-E.
- A KE, who works in law enforcement, reported that very few 'ecstasy' tablets contain MDMA because there is a shortage of the precursor chemical 'safrole', which generally comes from Malaysia and South East Asia. He reported that as a result ecstasy manufacturers add substances that might mimic the effects of MDMA. Therefore, pills sold as 'ecstasy' often contain methamphetamine mixed with a hallucinogen to mimic the stimulant/hallucinogenic effects of MDMA.

5.1.3. Availability

Of the current sample (n=90), 83 participants commented on the availability of ecstasy. The majority of the sample (65%, n=59) rated current availability of ecstasy as 'easy', which is comparable to 58% rating availability as 'easy' in 2010. Similarly, in the current sample, 18% (n=16) rated availability as 'very easy', compared to 22% in 2010. Therefore, overall 83% rated the availability of ecstasy as either 'easy' or 'very easy', compared to 80% in 2010. In 2012, almost half the sample (44%, n=40) perceived availability over the preceding six months as 'stable', which was also comparable to 54% perceiving availability as 'stable' in 2010. However, almost one-third of the sample (32%, n=29) reported that current availability of ecstasy was 'easier', compared to just 7% in 2010. As outlined in the report caveat, substantial difficulties were encountered during the 2011 WA EDRS recruitment process, which was believed to be a result of declines in perceived purity and availability of ecstasy; perceptions from the 2012 EDRS show preliminary indications that both purity and availability may be recovering in WA. Availability reports across survey years are presented in Table 14.

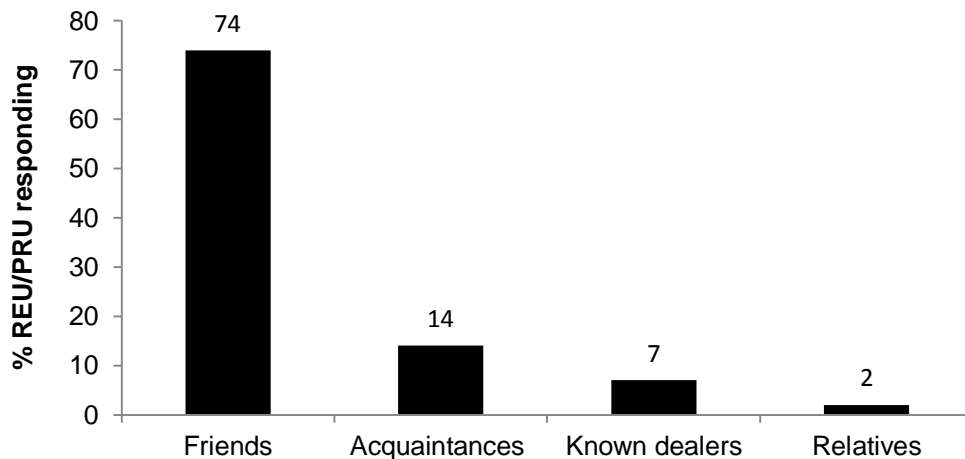
Table 14: REU/RPU reports of ecstasy availability in the preceding six months, 2003-2012

	2003 N=100	2004 N=100	2005 N=100	2006 N=100	2007 N=99	2008 N=58	2009 N=98	2010 N=100	2011 N=28	2012 N=90
Current availability										
Very easy (%)	61	54	62	47	30	52	61	22	14	18
Easy (%)	26	38	35	42	59	41	35	58	50	65
Availability										
Stable (%)	63	64	72	55	65	59	62	54	64	44
Easier (%)	16	15	16	17	10	24	20	7	4	32

Source: WA EDRS REU/RPU interviews, 2003-2012

As demonstrated in Figure 10, consistent with previous years, 'friends' was the most commonly reported person from whom ecstasy was last obtained, nominated by 74% (n=67) of the current sample. This was followed by 'acquaintances' which was nominated by 14% (n=13), 'known dealers' by 7% (n=6), and 'relatives' by 2% (n=2). 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".

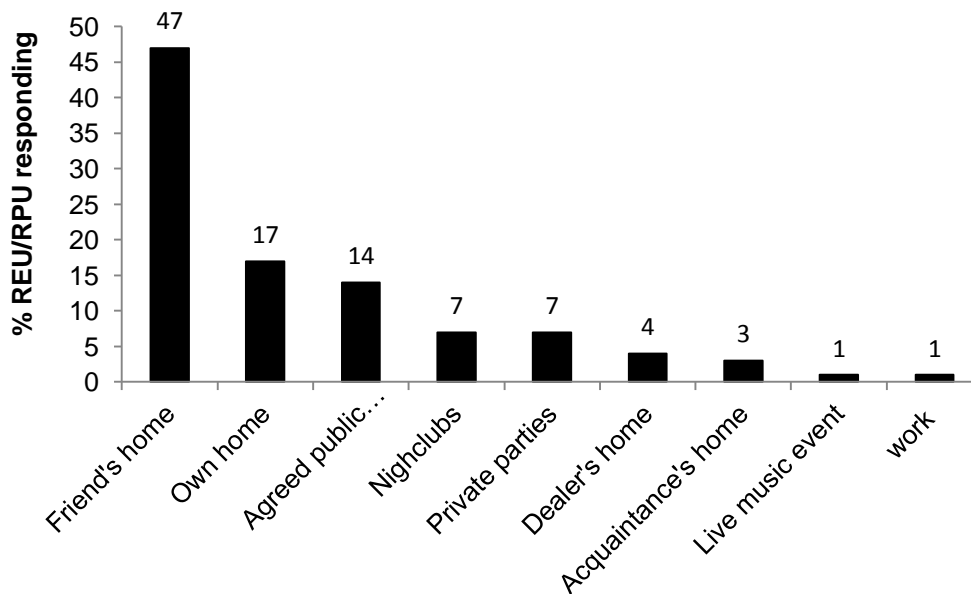
Figure 10: People from whom ecstasy was last obtained, WA 2012



Source: WA REU/RPU interviews, 2012

As presented in Figure 11, consistent with the above, 'friend's home' was the most commonly reported location from which ecstasy was last obtained, reported by 47% (n=42), followed by 'own home' reported by 17% (n=15), and then 'agreed public location' reported by 14% (n=13). The remaining participants reported obtaining from 'nightclubs', 'private parties', 'dealers home', 'acquaintances home', 'live music events', or 'work'.

Figure 11: Locations at which ecstasy was last purchased, WA 2012



Source: WA REU/RPU interviews, 2012

As presented in Table 15, the median number of people ecstasy was purchased from in the preceding six month period was two, compared to three people in previous years. A median of three ecstasy tablets 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' (54%). In the six month period, the most typical amount of ecstasy purchases was one to six, reported by 77% (n=69) of participants. Only 2% (n=2) participants reported making over 25 ecstasy purchases in the preceding 6 months.

Table 15: Patterns of purchasing ecstasy, 2005-2012

	2005 N=100	2006 N=100	2007 n=98	2008 N=58	2009 N=100	2010 N=100	2011 N=28	2012 N=90
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)
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)
Purchased for (%)								
Self only	26	22	25	22	22	30	46	43
Self and others	71	77	70	78	75	69	50	54
Others only	1	-	-	-	3	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
7-12	42	32	25	35	46	31	26	8
13-24	17	28	16	5	21	8	22	11
25 +	3	1	1	-	2	-	-	2
None	-	-	5	-	-	-	4	2

Source: WA EDRS REU/RPU interviews, 2005-2012

Key expert comments

- A KE, who works in drug analysis, reported that there was a 20% increase in 'ecstasy' samples during this period which could indicate that availability is increasing.

5.1.4.

Summary of ecstasy trends

- The median price of ecstasy was \$35 a tablet.
- More than half the sample (57%) rated ecstasy prices as 'stable' in the preceding six months.
- The purity of ecstasy was most commonly rated as 'medium', followed by 'low'.
- User perceptions of ecstasy purity suggest that purity may be increasing.
- Police analysis of phentylamine seizures during 2010/11 recorded the lowest purity levels seen since ACC began reporting on them in 2002.
- Availability of ecstasy was rated as 'easy' by the majority (65%), followed by 'very easy' (18%).
- The majority reported that availability was 'stable'; however, almost one-third reported that ecstasy was 'easier' to obtain.
- User perceptions of availability and purity suggest that ecstasy purity and availability may be recovering, following last year's suspected declines.
- 'Friends' remained the most commonly reported person from whom ecstasy was last obtained.
- Ecstasy was purchased from a median of two people in the last six months, and a median of three tablets were obtained at a time. Ecstasy was most commonly purchased for 'self and others'.
- The most typical number of occasions ecstasy was purchased in the six month period was one to six times.
- 'Friend's home' was the most commonly reported location for last ecstasy use.

5.2. Methamphetamine

5.2.1. Price

Speed

Participants were asked about the price of the various forms of methamphetamine on the last occasion of purchase (Table 16). In 2012, only one participant reported on the price of speed powder per gram and the reported price was \$400, compared to a median price of \$300 in 2010. Seven participants reported on the price of speed powder per point and the median price was \$100 (range 40-100), which marks a 100% increase on previous years (\$50). 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 large numbers in the 2012 WA IDRS interviews.

Base

In 2012, no participants reported on the price of methamphetamine base per gram or per point.

Crystal

Two participants commented on the price of crystal methamphetamine per gram last time it was purchased, and the median price was \$525 (range \$350-700), compared to \$400 in 2010. Ten participants reported on the price of crystal methamphetamine per point, and the median price was \$100. As with speed, this price marks a 100% increase on previous years, and represents the first price change for point of methamphetamine seen since the EDRS commenced in 2003 (with the exception of 2011 findings; refer to caveat). This trend is evident in Table 16.

Table 16: Price of various methamphetamine forms purchased by REU/RPU, 2003-2012

Median price (\$)	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Speed										
Point	50	50	50	50	50	50	50 [^]	50 [^]	100 [^]	100[^]
Gram	200	300	300	300	350	100	275	300 [^]	800 [^]	400[^]
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
Gram	-	400	350	400	400	425	400 [^]	400 [^]	400 [^]	525[^]

Source: WA EDRS REU/RPU interviews, 2003-2012

[^] Price reported by < 10 respondents

Speed

Participants were also asked about their perceptions of recent changes in the price of methamphetamine (see Figure 12). More than half (55%, n=6) of the sample reported that the price of speed was 'stable', approximately one-quarter (27%, n=3) reported that price was 'increasing', and the remaining participants (18%, n=2) reported that it was 'fluctuating'. Consistent with the 100% median price increase on points of methamphetamine, there were no participants reporting that the price of speed was 'declining'.

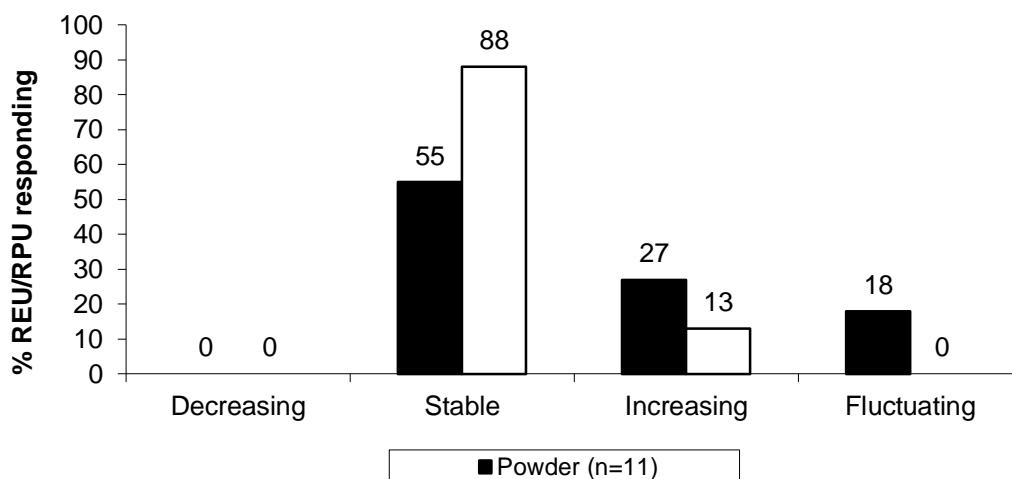
Base

In 2012, no participants reported on price changes for methamphetamine base.

Crystal

The vast majority (88%, n=14) reported that the price of crystal was 'stable' and the remaining participants reported (13%, n=2) that it was 'increasing'. Again, consistent with the median price increase on points of methamphetamine, there were no participants reporting that the price of crystal was 'declining'.

Figure 12: Recent changes in price of various methamphetamine forms purchased by REU/RPU who commented, 2012



Source: WA EDRS REU/RPU interviews, 2012

Data obtained from the ACC indicates that in WA during 2010/11, a point (0.1 gram) of crystal methamphetamine ('ice') cost between \$50 and \$100; the price per weight of crystal (1 gram) cost between \$500 and \$1,000; the price per 8-ball (3.5 grams or 1/8 ounce) cost between \$600 and \$3,000; the price per ounce (street deal) cost between \$8,000 and \$19,000; and the price per kilogram cost between \$120,000 and \$350,000 (ACC, 2012).

5.2.2. Purity

Speed

Participants also commented on the current purity of methamphetamine (Figure 13) and perceived changes in purity over the preceding six months (Figure 9). Current purity of speed was rated as 'medium' by half of those responding (50%, n=6), followed by 'high' (25%, n=3). In 2010, purity was reported as 'medium' by 70% of participants and 'high' by 10%.

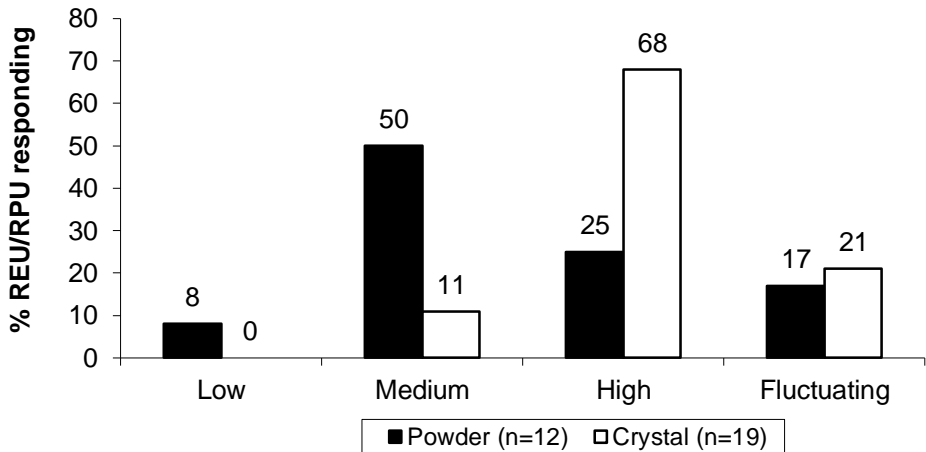
Base

In 2012, no participants commented on the purity of methamphetamine base.

Crystal

In 2012, the majority of participants (68%, n=61) who commented on crystal rated the current purity as 'high', compared to 40% in 2010, and 15% in 2009. In 2012, there were no participants who rated the purity of crystal as 'low', which compares to 13% rating purity as low in 2010, and 46% in 2009. This trend suggests that in recent years there has been a significant increase in the perceived purity of crystal methamphetamine.

Figure 13: User reports of current methamphetamine purity, 2012



Source: WA EDRS REU/RPU interviews, 2012

Speed

There were 12 participants who commented on changes to the purity of powder methamphetamine in the preceding six months. The greatest proportion of these (40%, n=4), reported that purity had remained ‘stable’ and no participants reported that purity was ‘decreasing’. In 2010, the greatest proportion also reported speed purity as ‘stable’ (62%).

Crystal

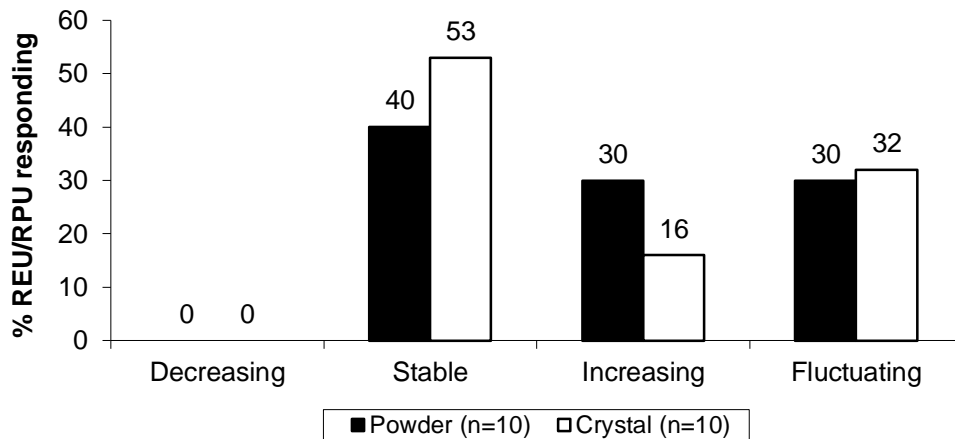
There were 19 participants who commented on changes to the purity of crystal methamphetamine in the preceding six months. As with speed, the greatest proportion (53%, n=10) reported that purity had remained ‘stable’, and no participants reported that purity was ‘decreasing’. In 2010, the greatest proportion also reported crystal purity as ‘stable’ (57%).

Base

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

A complete breakdown of trends in methamphetamine purity in the six months preceding the interview is presented in Figure 14.

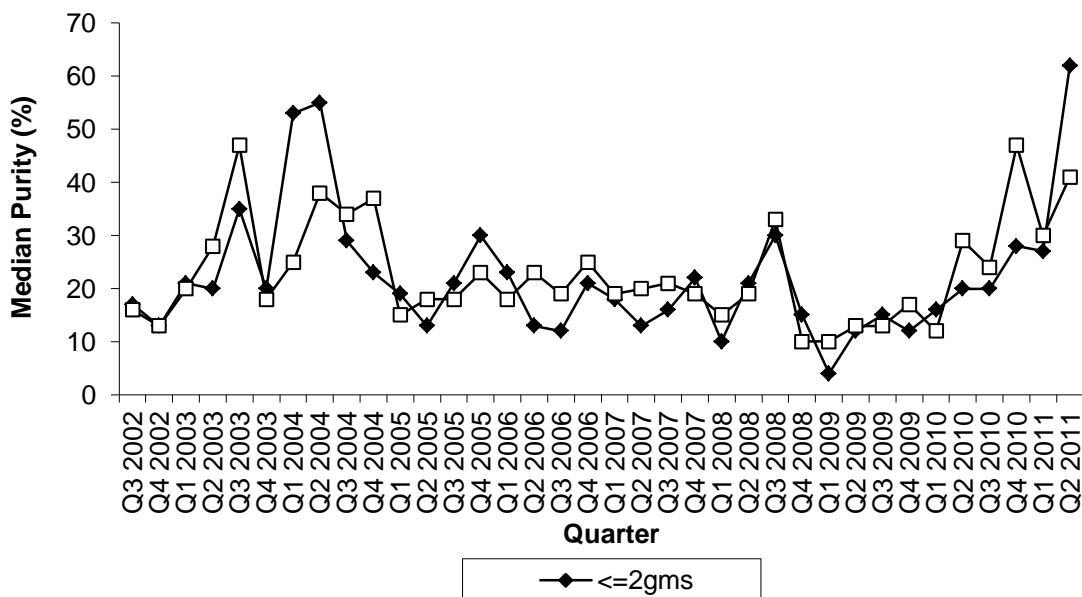
Figure 14: User reports of changes in methamphetamine purity in the past six months, 2012



Source: WA EDRS REU/RPU interviews, 2012

Figure 15 presents data provided by the ACC regarding the median purity of methylamphetamine in WA during 2010/11. When looking at Figure 15, it is evident that purity has varied across time, with a peak in the first half of 2004, and a slump in late 2008/early 2009. However, since this slump, purity has been steadily increasing. During this period, the second quarter of 2011 recorded the highest median purities on record, exceeding purities recorded during the 2004 peak. During this period the total median purity for seizures of two grams or less was 25% (20% in 2009/2010) and seizures in excess of two grams was 34% (29% in 2009/2010) (ACC, 2012). This purity data is consistent with user perceptions of an increase in methamphetamine purity recorded in recent EDRS data collection periods.

Figure 15: Median purity of methylamphetamine seizures analysed in WA by quarter, July 2002 to June 2011



Source: ACC, 2003-2011

Key expert comments

- A KE, who works in drug analysis, reported that the purity of methamphetamine samples has increased during this period.

5.2.3. Availability

Speed

There were 12 participants who commented on current availability of powder methamphetamine. Of these participants, the vast majority (92%, n=11) rated availability as either 'very easy' (58%, n=7) or 'easy' (33%, n=4). This is comparable to 2010 findings, where 88% rated availability of speed as either 'very easy' or 'easy'.

Base

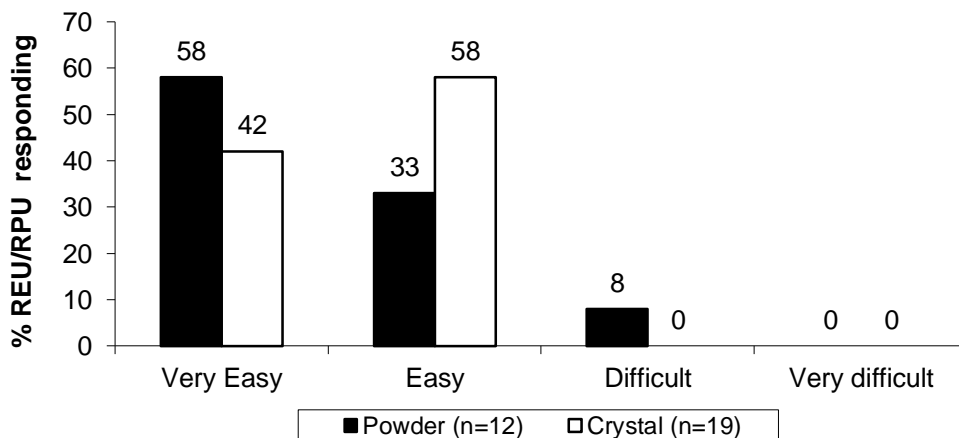
No participants commented on current availability of methamphetamine base.

Crystal

There were 20 participants who commented on current availability of crystal methamphetamine. Similar to speed, the vast majority (95%) rated availability as either 'very easy' (40%, n=8) or 'easy' (55%, n=11). This is comparable to 2010, where 93% rated crystal availability as either 'very easy' or 'easy'.

No participants rated availability of any form of methamphetamine as being 'very difficult' to obtain. A full breakdown of responses concerning current availability of methamphetamine is presented in Figure 16.

Figure 16: Current availability of methamphetamine forms, 2012



Source: WA EDRS REU/RPU interviews, 2012

Speed

In 2012, there were 12 participants who commented on changes in the availability of powder methamphetamine. The majority of these (67%, n=8), reported that availability had remained 'stable', compared to 94% in 2010.

Crystal

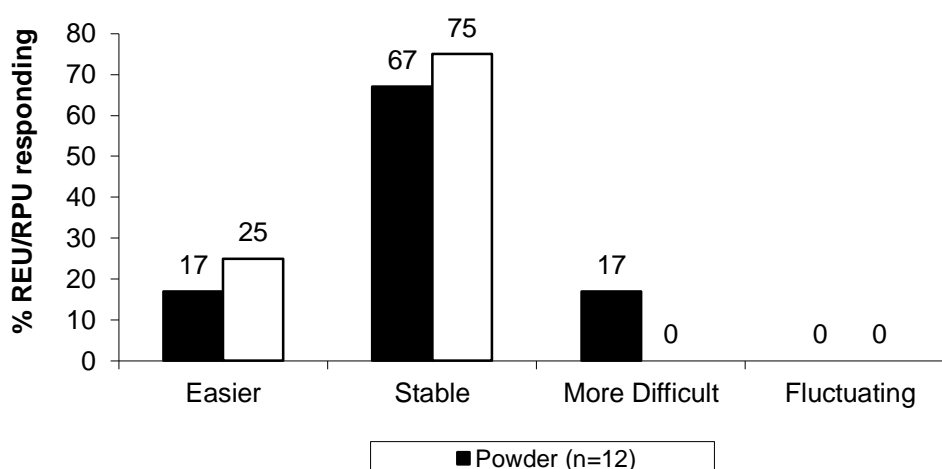
In 2012, there were 19 participants who commented on changes in the availability of crystal methamphetamine. As with speed, the majority (75%, n=12) reported that availability had remained 'stable', compared to 81% in 2010. In 2012, no participants reported that crystal was 'more difficult' to obtain.

Base

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

A complete breakdown of trends in methamphetamine availability in the six months preceding the interview is presented in Figure 17.

Figure 17: Change in the availability of various forms of methamphetamine in the preceding six months, 2012



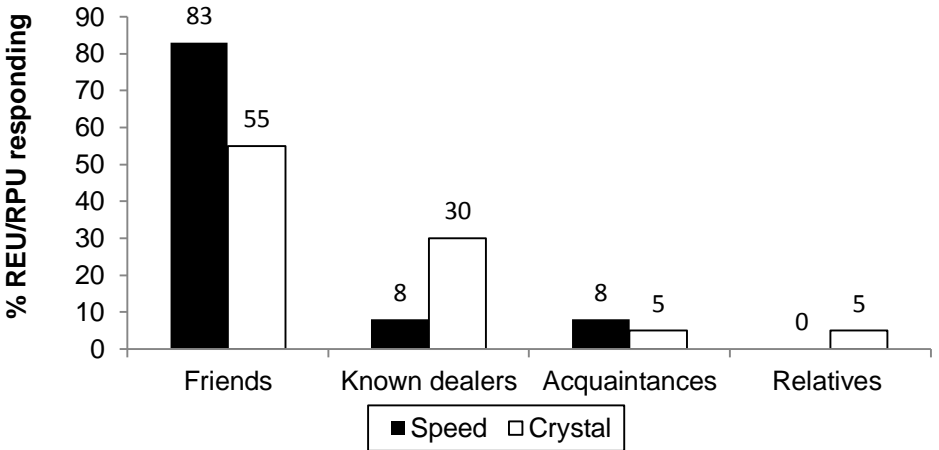
Source: WA EDRS REU/RPU interviews, 2012

The most recent Illicit Drug Data Report (IDDR) (ACC, 2012) reported on seizures of amphetamine-type stimulants (ATS) in the period 2010/11. ATS incorporate MDMA, amphetamine and methamphetamine. In WA, state police and Australian Federal Police were responsible for 1,993 seizures totalling 23,639 grams, compared with 2,372 seizures totalling 45,541 grams in the 2009/10 period.

Source person and source location

For all forms of methamphetamine, 'friends' was most commonly reported as the last person it was obtained from (see Figure 18); this is consistent with previous years. Of those who commented on speed (n=12), 83% (n=10) reported that they last obtained it from 'friends', and 8% (n=1) reported obtaining from a 'known dealer' or 'acquaintance'. Of those who commented on crystal (n=20), 55% (n=11) reported that they last obtained it from 'friends', 30% (n=7) reported obtaining from 'known dealers', and 5% (n=1) reported obtaining it from 'relatives' or 'acquaintances'. Again, there were no participants who commented on base.

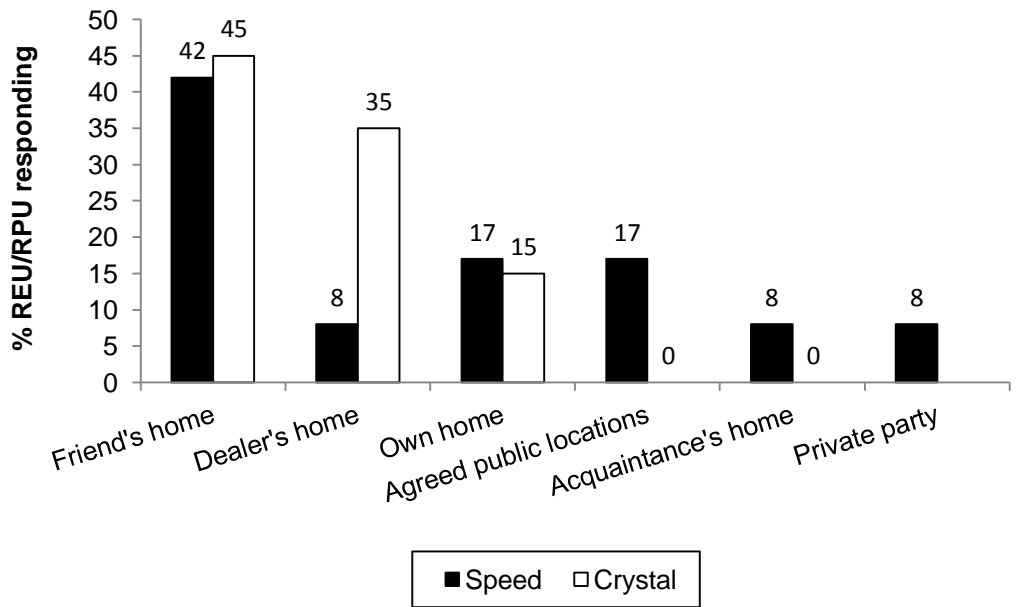
Figure 18: Person from whom methamphetamine powder and crystal was last obtained in the preceding six months, 2012



Source: WA EDRS REU/RPU interviews, 2012

Locations for purchasing methamphetamine were largely consistent with sources of purchase reported above. As shown in Figure 19, in relation to speed, ‘friend’s home’ was the most commonly reported location for last methamphetamine purchase (42%, n=5); this was followed by ‘own home’ (17%, n=2) and ‘agreed public location’ (17%, n=2). As with speed, ‘friend’s home’ was the most commonly reported location of purchase for crystal (45%, n=9); this was followed by ‘dealer’s home’ (35%, n=7) and then ‘own home’ (15%, n=3).

Figure 19: Last locations where methamphetamine was purchased in the preceding six months, 2012



Source: WA EDRS REU/RPU interviews, 2012

Key expert comments

- Several KEs from health and law enforcement reported that availability of crystal methamphetamine is high and increasing.
- A KE, who works in drug analysis, reported that methamphetamines continue to make up the biggest number of seizures, indicating high availability.
- A KE, who works in law enforcement, reported that there was an increase in the detection of clandestine methamphetamine labs by small user groups. He reported that they are generally manufacturing small quantities, predominantly for personal use.

5.2.4. Summary of methamphetamine trends

Speed

- The median price per point was \$100. With the exception of last year, this marks a 100% increase on previous years; however, these results must be qualified do to small numbers reporting.
- One participant reported that the cost per gram was \$400, which again needs to be treated with caution due to small numbers.
- The majority reported that the price of speed was 'stable' (55%).
- Comparable with 2010, speed purity was most commonly rated as 'medium' (50%).
- Purity was most commonly perceived as 'stable' (40%).
- The vast majority 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, purity or availability of base methamphetamine.

Crystal

- The median price per point was \$100. As with speed, this marks a 100% increase on previous years.
 - The median price per gram was \$525.
 - The majority reported that the price of crystal was 'stable' (88%).
 - Crystal purity was most commonly rated as 'high' (68%) and no participants rated purity as 'low', continuing a trend of increasing perceptions of purity.
 - The vast majority rated availability as either 'very easy' or 'easy'.
 - The majority perceived availability as 'stable' (75%).
-
- 'Friends' were most commonly reported as the last person from whom methamphetamine was obtained. Accordingly, 'friend's home' was the most commonly reported location of last purchase.
 - KEs reported that methamphetamine availability, purity and use were increasing.

5.3. Cocaine

5.3.1. Price

Consistent with previous years, in 2012 only a small sub-sample of participants (n=10) commented on the price of cocaine (see Table 17). Therefore, these findings should be interpreted with caution. Of those who commented, the median cost for a gram of cocaine in 2012 was \$325, compared to \$365 in 2010.

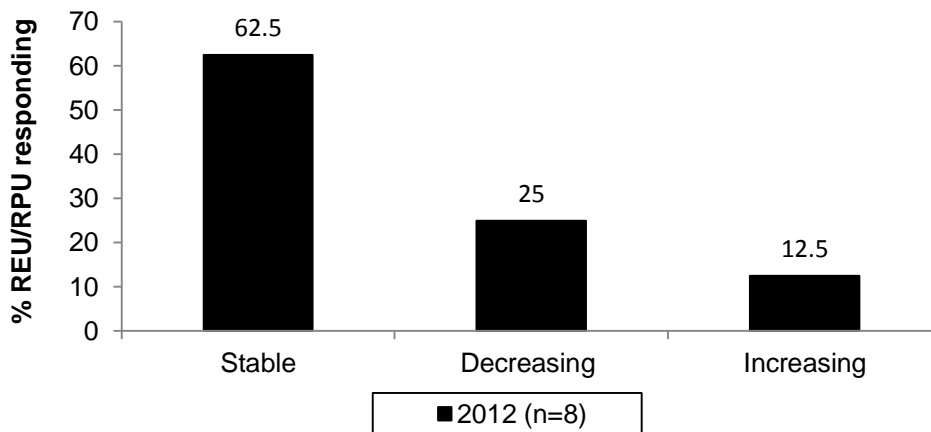
Table 17: Price of cocaine purchased by REU/RPU, 2003-2012

Cocaine	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)
Median price per gram	\$325	\$300	\$350	\$350	\$390	\$325	\$375	\$365	\$375	\$325
Price range	(\$250-\$400)	(\$250-\$400)	(\$300-\$450)	(\$210-\$600)	(\$200-\$500)	(\$300-\$400)	(\$200-\$1300)	(\$300-\$500)	(\$350-\$500)	(\$100-\$700)

Source: WA EDRS REU/RPU interviews, 2003-2012

As evident in Figure 20, the majority of those commenting (62.5%, n=5) reported that the price of cocaine was 'stable'. Of the remainder, 25% (n=2) reported that the price of cocaine was 'decreasing', and 12.5% (n=1) reported that it was 'increasing'. However, again it must be emphasised that given the extremely small sample size extreme caution needs to be taken in drawing conclusions from these data.

Figure 20: User reports of recent changes in the price of cocaine, 2012



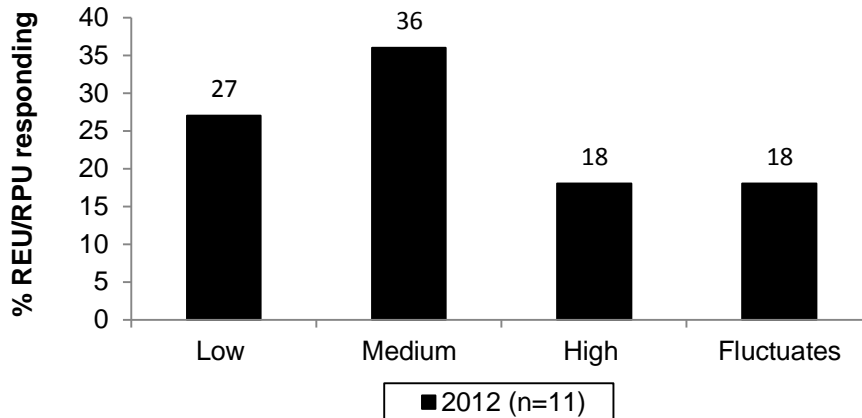
Source: WA EDRS REU/RPU interviews, 2012

Data obtained from the ACC indicate that in WA during 2010/2011, the price per ounce (28 grams) of cocaine cost between \$7,000 and \$16,000. 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 (ACC, 2011; ACC, 2012).

5.3.2. Purity

In 2012, 11 participants commented on the purity of cocaine. Of these, the greatest proportion rated cocaine as 'medium' (34%, n=4); this was followed 'low' (27%, n=3), and then 'high and 'fluctuates' (each 18%, n=2). This data is displayed in Figure 21. The very small number of participants here and in 2010 (n=7) precludes drawing any meaningful comparisons or conclusions from 2010 data.

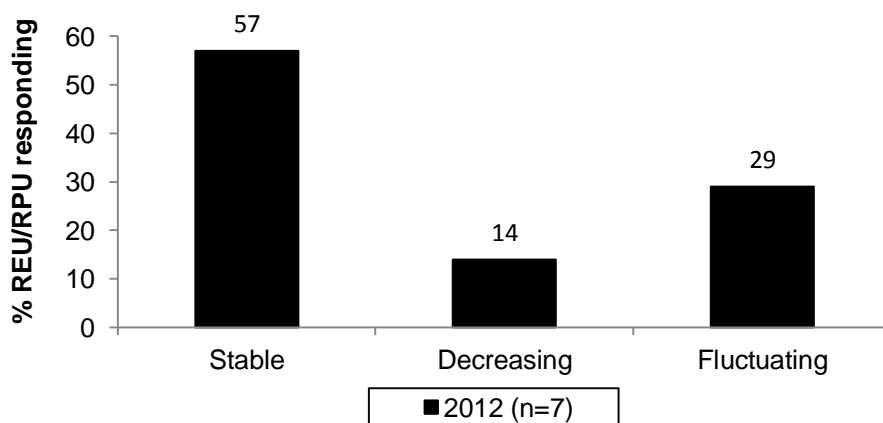
Figure 21: User reports of current purity of cocaine, 2012



Source: WA EDRS REU/RPU interviews, 2012

Of the 11 participants who commented on cocaine purity, only seven were able to comment on changes to purity in the preceding six months. As presented in Figure 22, the majority (57%, n=4) reported that cocaine purity was 'stable', 14% (n=1) reported that it was 'decreasing', and 29% (n=2) reported that it was 'fluctuating'. Again, the very small number of participants here precludes drawing any conclusions based on these data.

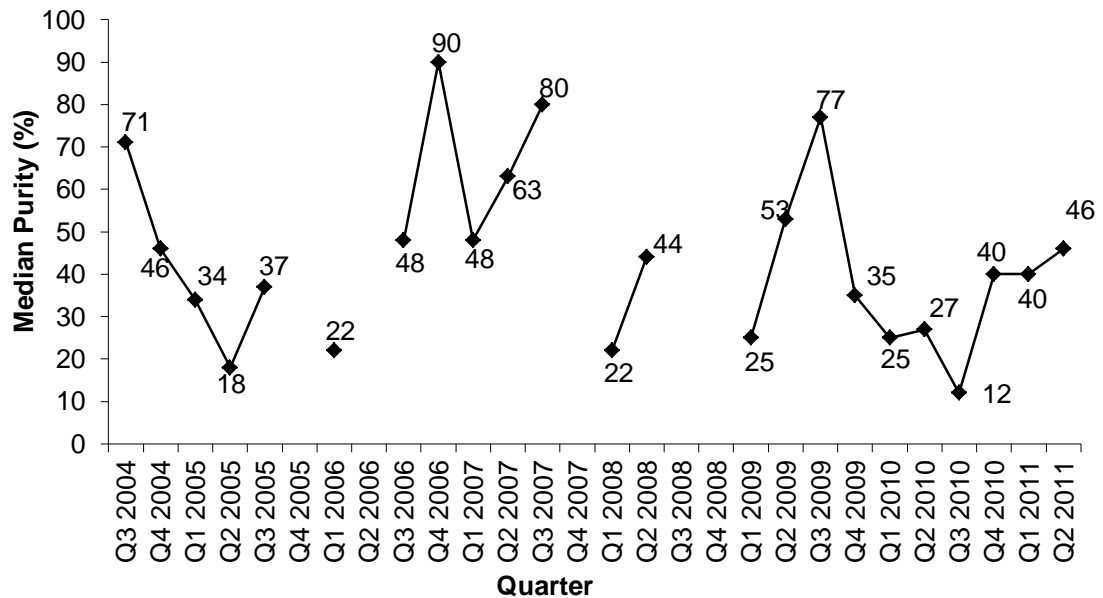
Figure 22: User reports of changes in cocaine purity in the preceding six months, 2012



Source: WA EDRS REU/RPU interviews, 2012

Figure 23 presents ACC data for the median purity of cocaine seizures in WA per quarter. It is difficult to interpret meaningful findings from this data due to the number of seizures historically being extremely low in WA. From the latest ACC data, it would appear that the purity of cocaine seizures analysed in WA continues to fluctuate, ranging from 12% to 46% in the 2010/11 period (ACC, 2012).

Figure 23: Median purity of cocaine seizures analysed in WA by quarter, July 2004 to June 2011



Source: ACC, 2005-2012

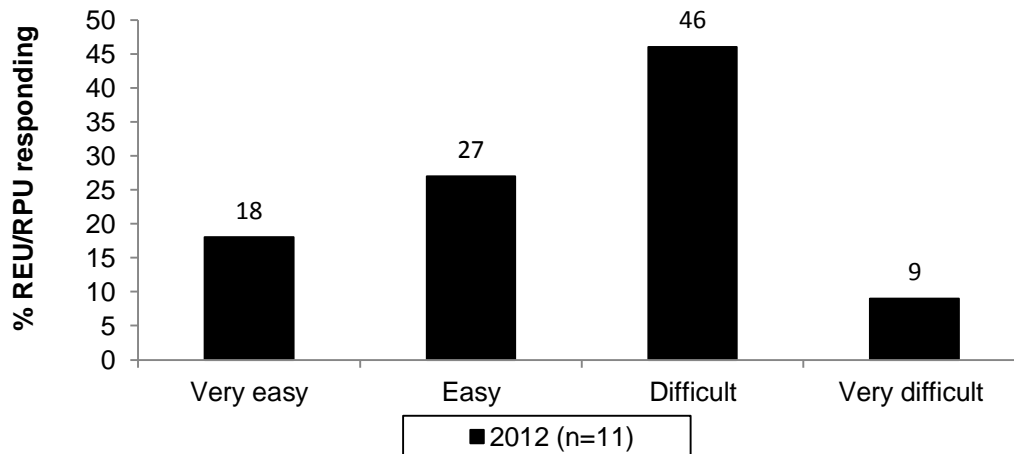
Key expert comments

- A KE, who works in drug analysis, reported that the purity of cocaine being analysed in WA [currently] was around 30%, which he reported was a slight increase on 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 11 participants who commented on perceived cocaine availability in WA. As presented in Figure 24, the greatest proportion rated availability as 'difficult' (46%, n=5), followed by 'easy' (27%, n=3), 'very easy' (18%, n=2), and 'very difficult' (9%, n=1). In 2010, the greatest proportion rated cocaine availability as 'easy' or 'very easy' (43%, n=6). Again, the very small number of participants for both 2010 and 2012 precludes drawing any conclusions based on these data.

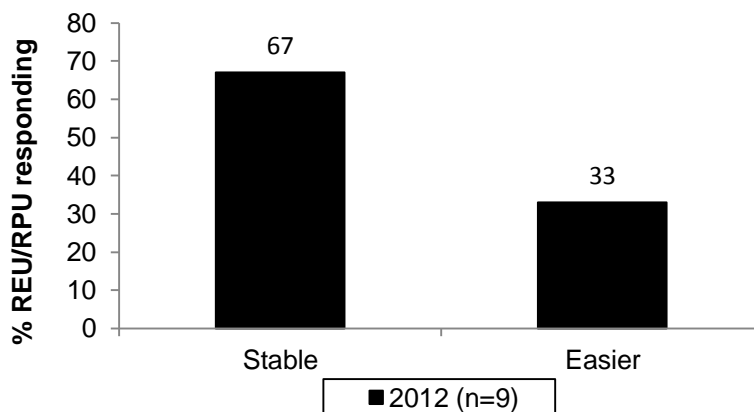
Figure 24: Current availability of cocaine, 2012



Source: WA EDRS REU/RPU interviews, 2012

Nine participants commented on perceived changes in cocaine availability over the preceding six months. As presented in Figure 25, the majority (67%, n=6) reported that availability was 'stable'. These remaining participants (33%, n=3) reported that cocaine was 'easier' to obtain. This data is presented in Figure 25. 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, 2012



Source: WA EDRS REU/RPU interviews, 2012

Source person and source location

Of those who commented on obtaining cocaine over the preceding six months (n=12), the majority reported obtaining from 'friends' (67%, n=8), followed by 'online' (17%, n=2), and then by 'workmates' (8%, n=1). Consistent with this, the most commonly reported location of last purchase was at a 'friend's home' (58%, n=7), followed by 'own home' (17%, n=2), and then by 'agreed public location' and 'online' (each 8%, n=1).

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 (n=10). As such, we recommend extreme caution in interpreting the data presented here:

- The median price per gram of cocaine was \$325.
- That majority reported that the price of cocaine was 'stable'. (63%).
- Perceptions of the purity of cocaine were mixed; however, the greatest proportion rated purity as 'medium' (36%).
- The greatest proportion reported cocaine purity as 'stable' (57%).
- Analysis of cocaine seizures in WA revealed that cocaine purity in the 2010/2011 period was between 12% and 46%. This continues a fluctuating trend. Consistent with previous periods, the number of seizures in WA was low.
- Perceptions on availability of cocaine were also mixed; however, the greatest proportion (46%) reported that cocaine was 'difficult' to obtain.
- 'Friends' were most commonly reported as the last person from whom cocaine was obtained. Accordingly, 'friend's home' was the most commonly reported location of last purchase.
- Two participants reported purchasing cocaine online last time they obtained it.

5.4. Ketamine

No participants commented on the price, purity or availability of ketamine in 2012.

5.5. GHB

No participants commented on the price, purity or availability of GHB in 2012.

5.6. LSD

5.6.1. Price

As presented in Table 18, in 2012 the median price per tab of LSD in WA was \$20, compared to \$25 which has been recorded every year since 2007. Of those who commented on the price of LSD (n=19), the majority (68%, n=13) reported that the price was 'stable' over the preceding six months. This was followed by one-quarter reporting that the price was 'decreasing' (26%, n=5).

Table 18: Price of LSD purchased by REU/RPU, 2003-2012

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)
Median price (\$)	20	25	25	20	25	25	25	25	25	20
tab (range)	(15-40)	(7-40)	(15-40)	(10-50)	(10-30)	(20-45)	(5-40)	(10-40)	(15-50)	(10-50)
Price change:	(n=30)	(n=17)	(n=29)	(n=13)	(n=10)	(n=7)	(n=19)	(n=27)	(n=11)	(n=19)
Increased (%)	30	41	38	15	0	29	21	11	9	0
Stable (%)	53	29	34	69	90	5	74	78	64	68
Decreased (%)	7	6	17	8	10	14	5	7	0	26
Fluctuated (%)	10	24	10	8	0	0	0	4	27	5

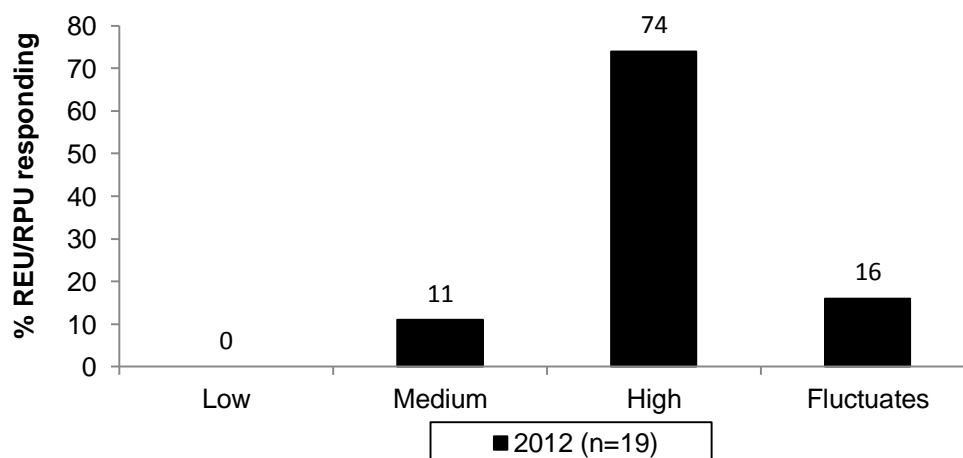
Source: WA EDRS REU/RPU interviews, 2003-2012

Data obtained from the ACC indicates that in WA during 2010/11, LSD cost between \$25 to \$30 per tab (ACC, 2012).

5.6.2. Purity

There were 19 participants who commented on the purity of LSD in 2012. The vast majority (74%, n=14) rated the current purity of LSD as 'high', which was not significantly different from the 43% rating purity as 'high' in 2010. The second most common rating of purity was 'fluctuates' (16%, n=3), and then 'medium' (11%, n=2). No participants rated current LSD purity as 'low'. This data is presented in Figure 26.

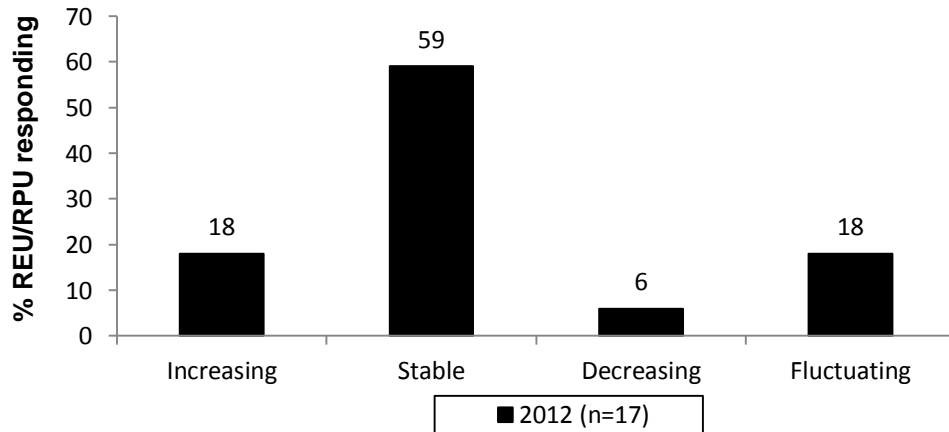
Figure 26: User reports of current LSD purity, 2012



Source: WA EDRS REU/RPU interviews, 2012

Participants were asked whether the strength of LSD had changed in the last six months (see Figure 27). Of those who commented (n=17), over half (59%, n=10) reported that LSD purity was 'stable' in the preceding six months. The majority also reported that LSD purity was 'stable' in 2010 (68%). The remaining participants reported that LSD purity was 'increasing' or 'fluctuating' (each 18%, n=3). Only one participant reported that purity was 'decreasing' (6%, n=1). In 2010, following 'stable' the greatest proportion reported purity as 'decreasing' (16%, n=4).

Figure 27: User reports of changes in LSD purity in the past six months, 2012

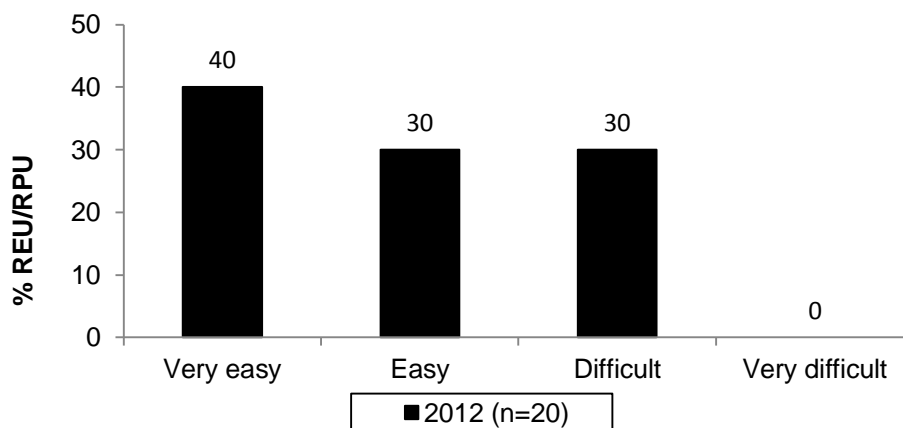


Source: WA EDRS REU/RPU interviews, 2012

5.6.3. Availability

Figure 28 presents the perceived current availability of LSD in WA in 2012. Of those who commented (n=20), almost three-quarters (70%) reported that LSD was either 'very easy' (40%, n=8) or 'easy' (30%, n=6) to obtain. Approximately one-third (30%, n=6) reported that LSD was 'difficult' to obtain. Very similar availability was reported in 2010, with almost three-quarters (71%) reporting that LSD 'very easy' or 'easy' to obtain, and one-third (29%) reporting it 'difficult' to obtain. No participants reported availability of LSD as 'very difficult' in 2012 or 2010.

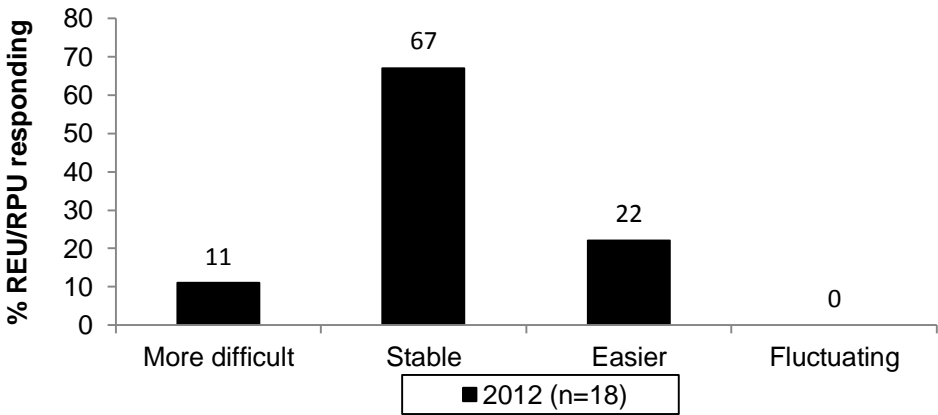
Figure 28: Current availability of LSD, 2012



Source: WA EDRS REU/RPU interviews, 2012

In regards to recent changes in availability of LSD (see Figure 29), most of those who commented (67%, n=12) reported that availability was 'stable'. Smaller proportions reported that availability was 'easier' (22%, n=4) or 'more difficult' (11%, n=2). No participants reported that LSD availability was 'fluctuating'. In 2010, the majority also reported that LSD availability was 'stable'.

Figure 29: Changes in availability of LSD during the preceding six months, 2012

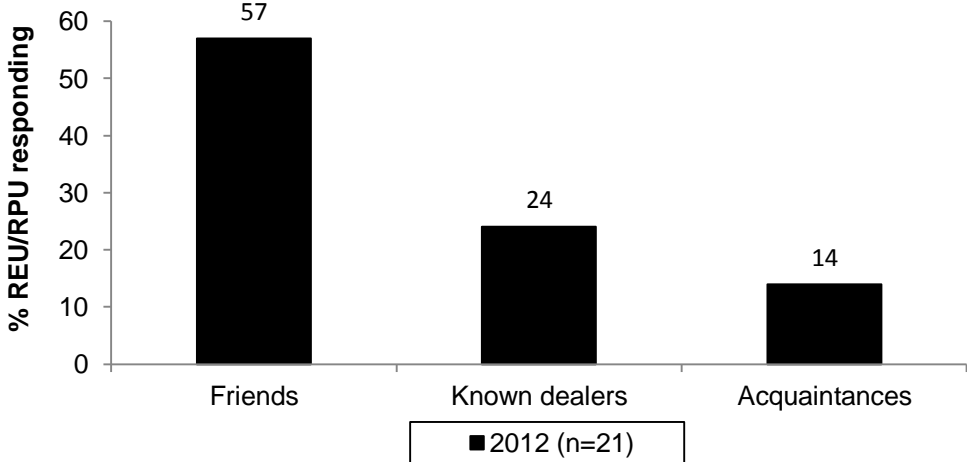


Source: WA EDRS REU/RPU interviews, 2012

Source person and source location

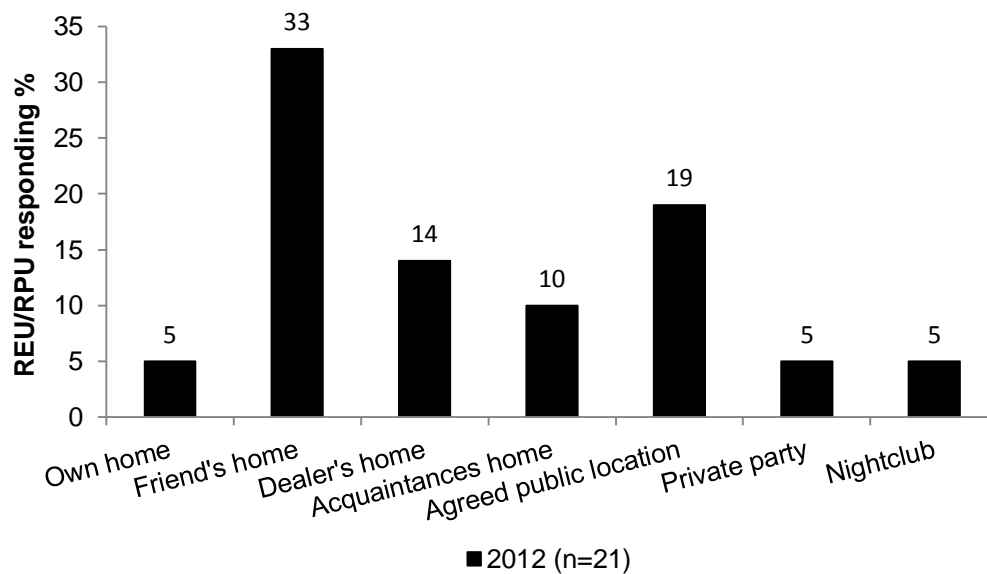
Participants were asked who and where they obtained LSD from last time they obtained it in the preceding six months (see Figure 30). Of those who commented (n=21), 'friends' were the most commonly reported source for obtaining LSD (57%, n=12), followed by 'known dealers' (24%, n=5), and then 'acquaintances' (14%, n=3). Accordingly, the most commonly reported location from where LSD was last obtained was 'friend's home' (33%, n=7), followed by 'agreed public location' (19%, n=4), 'dealer's home' (14%, n=3) and 'acquaintance's home' (10%, n=2) (see Figure 31).

Figure 30: Person from whom LSD was last obtained, 2012



Source: WA EDRS REU/RPU interviews, 2012

Figure 31: Locations from where LSD was last obtained, 2012



Source: WA EDRS REU/RPU interviews, 2012

Key expert comments

- A KE, who works in drug analysis, reported that they had received an increase in LSD samples, which could be reflective of an increase in availability.

5.6.4. Summary of LSD trends

- The median price per tab of LSD was \$20, compared to \$25 in previous years.
- That majority (68%) reported that the price of LSD was 'stable' (63%).
- The majority rated the purity as 'high' (74%). There were no participants that rated purity as 'low'.
- LSD purity was most commonly perceived as 'stable' (59%).
- The majority (70%) reported that LSD was either 'easy' or 'very easy' to obtain.
- The majority reported that availability was 'stable' (67%).
- 'Friends' were the most commonly reported person from whom LSD was last obtained. Accordingly, 'friend's home' was the most commonly reported location of last purchase.

5.7. Cannabis

5.7.1. Price

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

Table 19 presents REU/RPU reports of the price of one ounce of cannabis by form. In 2012, one ounce of hydro cannabis (n=20) cost a median of \$350, which has been consistent since 2009. Bush cannabis has consistently cost slightly less and in 2012 cost a median of \$300, which is comparable with 2010. Participants also commented on the price of cannabis per gram. The median price per gram of both hydro (n=11) and bush (n=7) cannabis was \$25 (range 20-30), which remains unchanged from 2010.

In 2012, no participants were able to comment on the price of hash. In 2010, only one participant was able to comment on the price, reporting \$35 for one cap of hash.

Table 19: Median reported price of cannabis ounce, 2006-2012

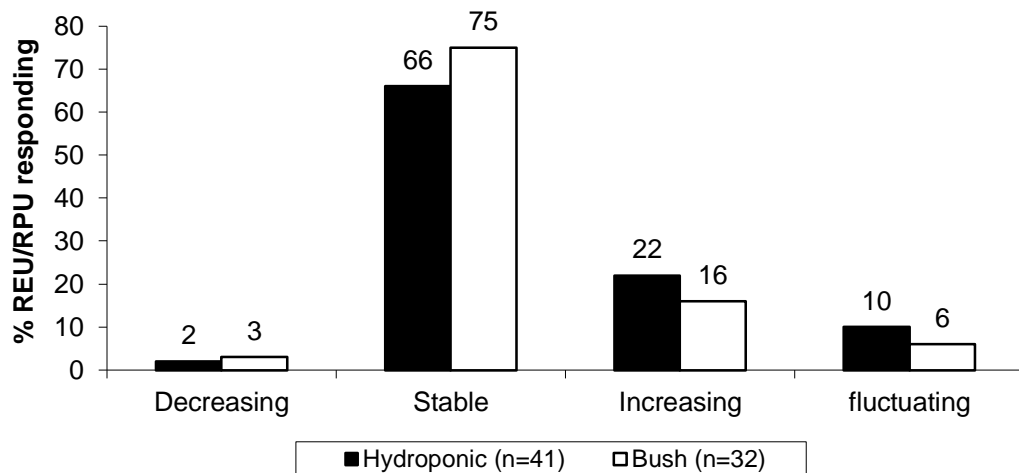
Form of cannabis	2006	2007	2008	2009	2010	2011	2012
Hydroponic	(n=42) \$280	(n=33) \$300	(n=24) \$305	(n=23) \$350	(n=25) \$350	(n=14) \$350	(n=20) \$350
Bush	(n=28) \$250	(n=20) \$250	(n=16) \$275	(n=16) \$280	(n=16) \$280	(n=12) \$250	(n=9) \$300

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 months (Figure 32). Of those who commented, the majority reported the price of hydro as 'stable' (66%, n=27), followed by 'increasing' (22%, n=9), 'fluctuating' (10%, n=4) and then 'decreasing' (2%, n=1). Similarly, the majority also reported the price of bush as 'stable', followed by 'increasing' (16%, n=5), 'fluctuating' (6%, n=2), and then 'decreasing' (3%, n=1).

Data obtained from the ACC indicates that in WA during 2010/11, bush cannabis cost \$50 for a one gram deal, cost between \$360 and \$700 for one ounce (28 grams), and \$4,000-\$5,000 for one pound. There was no ACC data available concerning the price of hydroponic cannabis or hashish in WA for this reporting period (ACC, 2012).

Figure 32: Recent changes in price of cannabis purchased by REU/RPU, 2012



Source: WA EDRS REU/RPU interviews, 2012

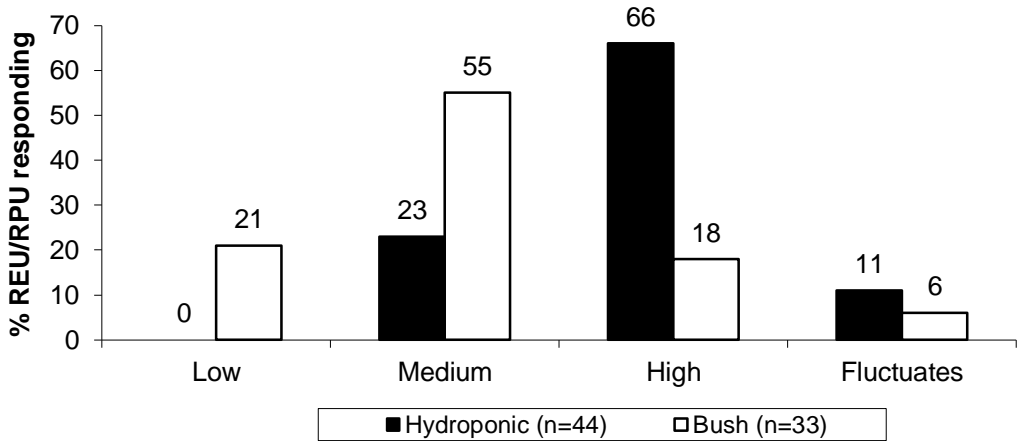
Key expert comments

- Most KEs agreed that cannabis price, purity and availability were ‘stable’ over the preceding six months.
- A KE, who works in AOD counselling, reported that the price of one stick (1-1.2 grams) cost \$25. This KE also reported that while price was stable, the potency fluctuated.

5.7.2. Potency

Participants also reported on the current potency of cannabis and perceived changes in potency during the preceding six months. As shown in Figure 33, approximately two-thirds of those who commented on hydro (n=44) rated current potency as ‘high’ (66%, n=29), which was comparable to 55% in 2010. This was followed by ‘medium’ (23%, n=10) and then ‘fluctuates’ (11%, n=5). No participants rated current hydro potency as ‘low’. Unlike hydro, bush cannabis was most commonly rated as ‘medium’ (55%, n=14), which remains comparable to 52% in 2010. The remaining reports regarding bush potency were mixed.

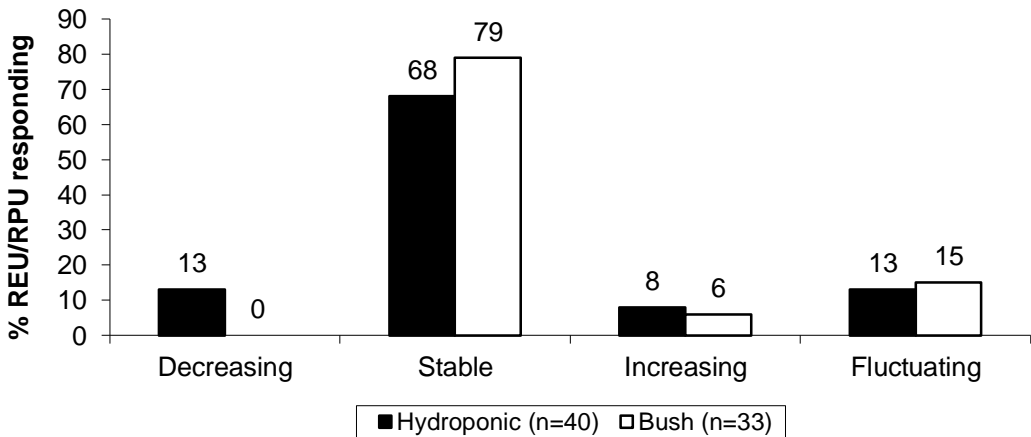
Figure 33: User reports of current potency of cannabis, 2012



Source: WA EDRS REU/RPU interviews, 2012

Figure 34 presents perceived changes to cannabis potency in the preceding six months. Of those who commented, the majority reported potency as ‘stable’ for both hydro (68%, n=27) and bush (79%, n=15). This was comparable to 2010 findings.

Figure 34: User reports of changes in cannabis potency in the past six months, 2012

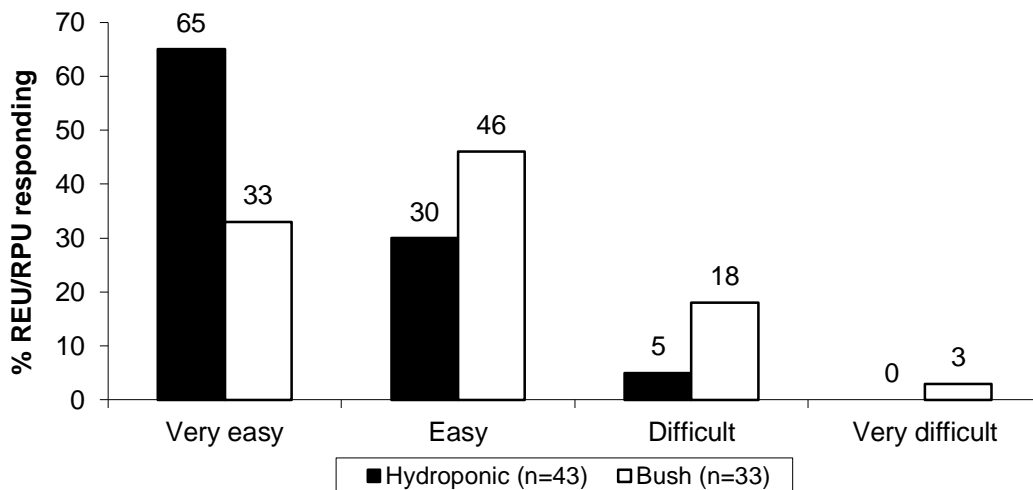


Source: WA EDRS REU/RPU interviews, 2012

5.7.3. Availability

Consistent with recent years, in 2012 the vast majority of those commenting reported that hydro was either ‘very easy’ or ‘easy’ to obtain (95% in 2012 vs. 90% in 2010) (Figure 35). No participants reported that hydro was ‘very difficult’ to obtain. Similarly, the majority also reported that bush was either ‘very easy’ or ‘easy’ (79%) to obtain. However, as evident in Figure 35, hydro was most commonly reported as ‘very easy’, while bush was most commonly reported as ‘easy’, indicating that hydro is the more available form of cannabis in Perth.

Figure 35: Current availability of cannabis, 2012

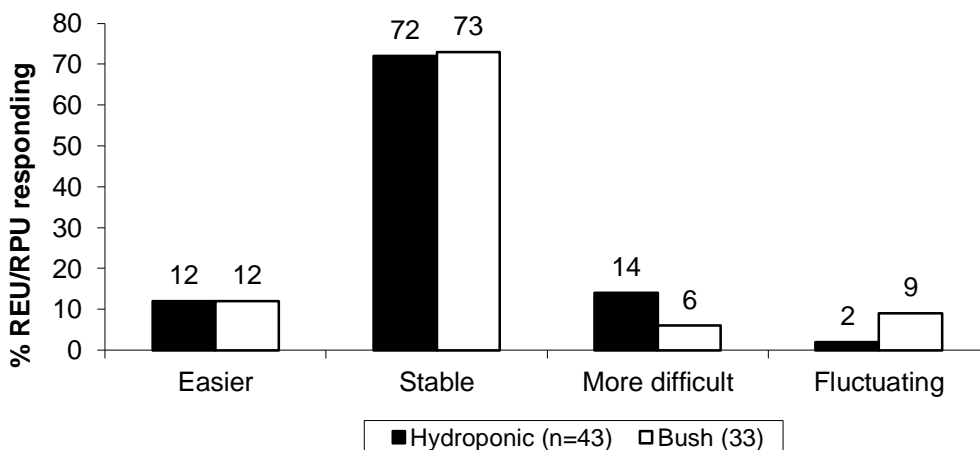


Source: WA EDRS REU/RPU interviews, 2012

Participants were also asked to comment on perceived changes in availability of cannabis over the preceding six months. As presented in Figure 36, approximately three-quarters (hydro 72%, n=31, bush 73%, n=24) of those commenting reported that availability of both forms of cannabis was ‘stable’.

The ACC reported that in 2010/11 there were 8,140 seizures of cannabis in WA, compared to 9,599 in 2009/10. These seizures were reported to weigh a total of 416,581 grams (ACC, 2012).

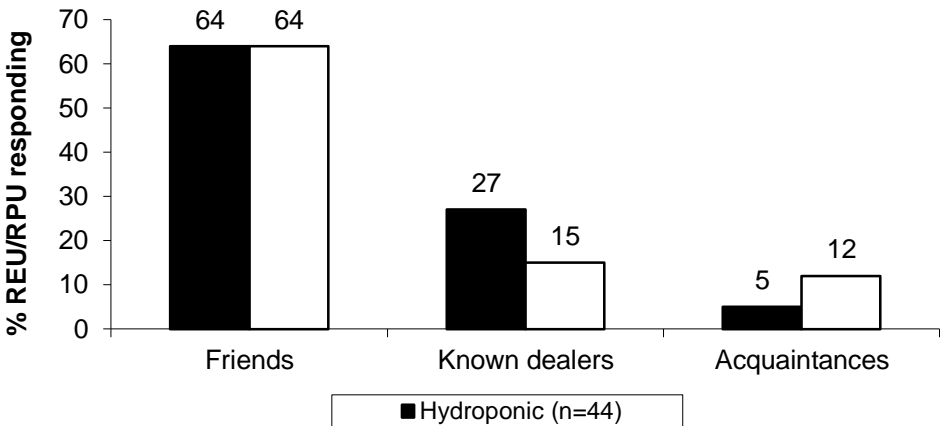
Figure 36: Changes in cannabis availability in the preceding six months, 2012



Source: WA EDRS REU/RPU interviews, 2012

As presented in Figure 37, ‘friends’ were the most commonly reported last source of cannabis, for both hydro (64%, n=28) and bush (64%, n=21). This second most commonly reported source was ‘known dealers’ for both hydro (27%, n=12) and bush (15%, n=5).

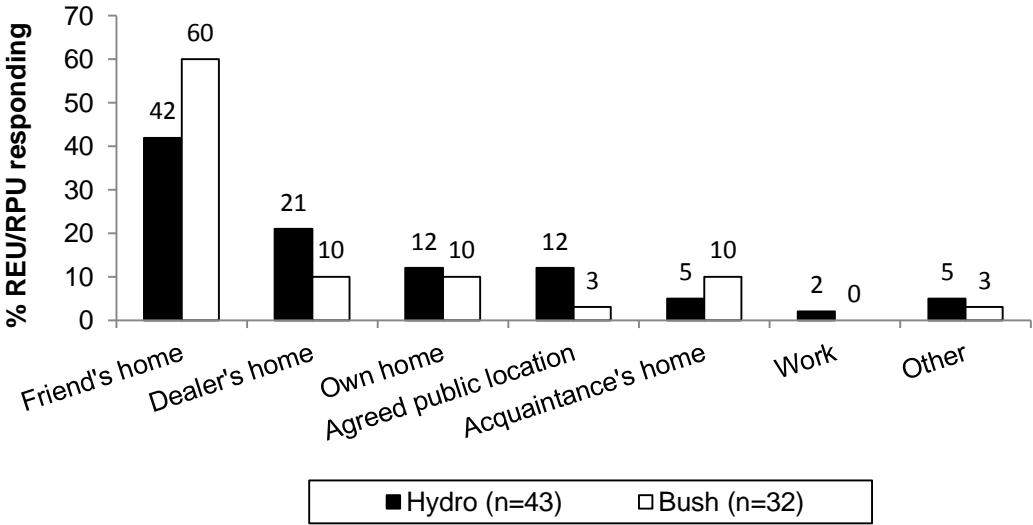
Figure 37: Person from whom cannabis was last obtained in the preceding six months, 2012



Source: WA EDRS REU/RPU interviews, 2012

As presented in Figure 38, 'friend's home' was the most commonly reported location from where cannabis was last obtained, for both hydro (42%, n=18) and bush (21%, n=7).

Figure 38: Last location where cannabis was obtained in the preceding six months, 2012



Source: WA EDRS REU/RPU interviews, 2012

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, consistent with 2010.
- The majority of participants reported that the price of hydro was 'stable' (66%).
- The majority of participants rated current potency of hydro as 'high' (66%) and 'stable' (68%).
- The majority of participants rated current availability of hydro as 'very easy' (65%) and 'stable' (72%).

Bush

- The median price per ounce was \$300, comparable to \$280 in 2010.
- The median price per gram was \$25, consistent with 2010.
- The majority reported that the price of hydro was 'stable' (75%).
- The majority of participants rated current potency of bush as 'medium' (55%) and 'stable' (79%).
- Almost half of those commenting rated current availability of bush as 'easy' (46%) and the majority reported availability as 'stable' (72%).

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 2012, approximately half of the sample (51%, n=46) reported overdosing on a stimulant drug at some point in their lifetime, compared to one-fifth of the sample (21%) in 2010. This marks a significant increase in reported stimulant overdoses (95%CI -0.17, -0.42). Further investigation comparing the 2010 and 2012 REU samples indicated that this significant increase in stimulant overdoses was not due to sampling differences (i.e., changes to selection criteria, see section 2.1). Of those who had ever overdosed on a stimulant drug, the median number of times they had done so in their lifetime was two times (range 1-38), compared to one time in 2010. Additionally, the most recent overdose occurred on a median of 5 months ago (range 1-18), compared to 20 months ago in 2010. This data is presented in Table 20.

Table 20: Reported overdose on stimulant and depressant drugs, 2012

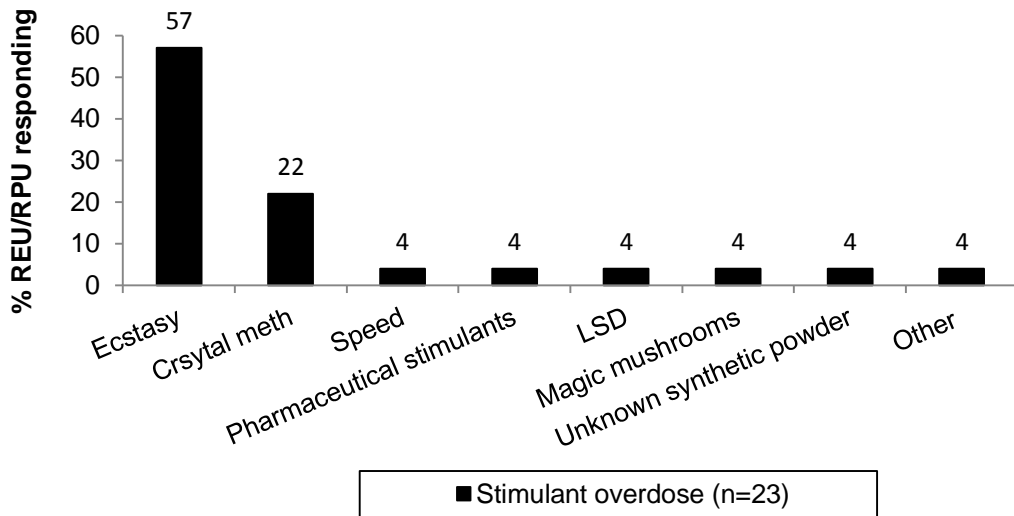
Overdose	Stimulant	Depressant
Ever overdosed	51%	38%
Of those that had overdosed:	(n=46)	(n=34)
Median number of times (range)*	2 (1-8)	3 (1-50)
Most recent overdose (median months)	5	12
Location of overdose being own home	13%	31%

Source: WA EDRS REU/RPU interviews, 2012

* Outliers have been excluded

Of those participants who had experienced a stimulant overdose in their lifetime (n=46), the majority (63%, n=27) had experienced one in the past 12 months. As presented in Figure 39, more than half reported (56%, n=13) that ecstasy was the main drug they attribute the overdose to. This is consistent with 2010 findings. Crystal methamphetamine was the main drug attributed to overdose in 22% (n=5) of cases, and there were individual reports of overdoses resulting from the consumption of speed, pharmaceutical stimulants, LSD, magic mushrooms and unknown synthetic powders. Almost half (44%) of those who commented reported taking at least one other drug in combination with the main drug when the overdose occurred. These drugs included ecstasy, unknown adulterated contents of ecstasy, methamphetamines, pharmaceutical stimulants, mushrooms, cannabis, synthetic cannabis 'Kronic', and alcohol.

Figure 39: Drug attributed to most recent stimulant overdose, 2012

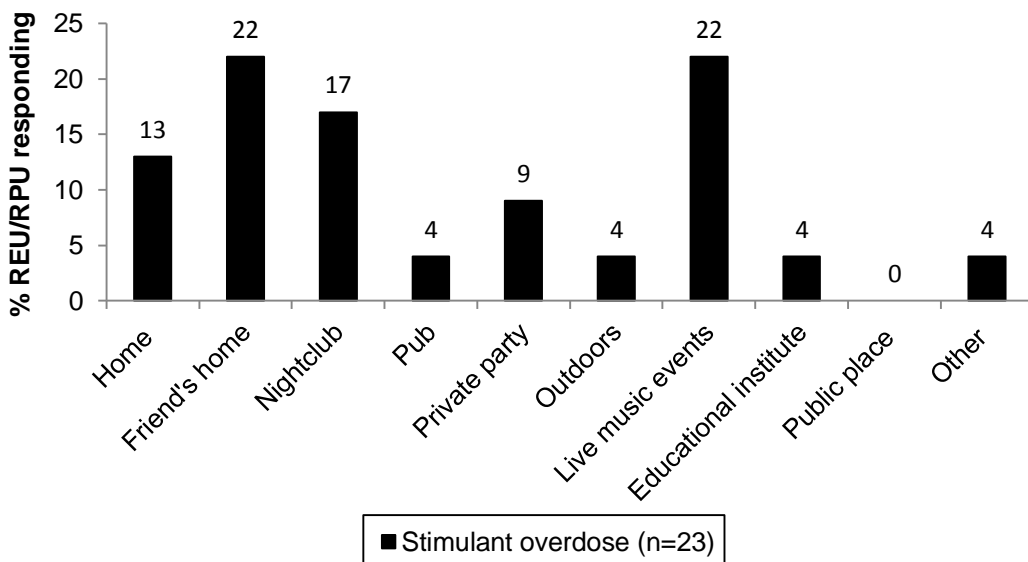


Source: WA EDRS REU/RPU interviews, 2012

The most commonly reported main symptom experienced during stimulant overdose was ‘extreme anxiety’ (22%), and this was followed by ‘increased heart rate’ (17%), ‘vomiting’ (12%) and ‘tremors’ (9%). There were also individuals reporting the main symptom as ‘nausea’, ‘increased body temperature’, ‘irregular breathing’, ‘headache’, ‘visual hallucinations’, ‘blurred vision’, ‘inability to control head and eye movements’ and ‘delirium’.

As presented in Figure 40, the most common location of stimulant overdose in the last 12 months was at either a ‘live music event’ or a ‘friend’s home’ (each 22%, n=5).

Figure 40: Location of most recent stimulant and depressant overdose, 2012



Source: WA EDRS REU/RPU interviews, 2012

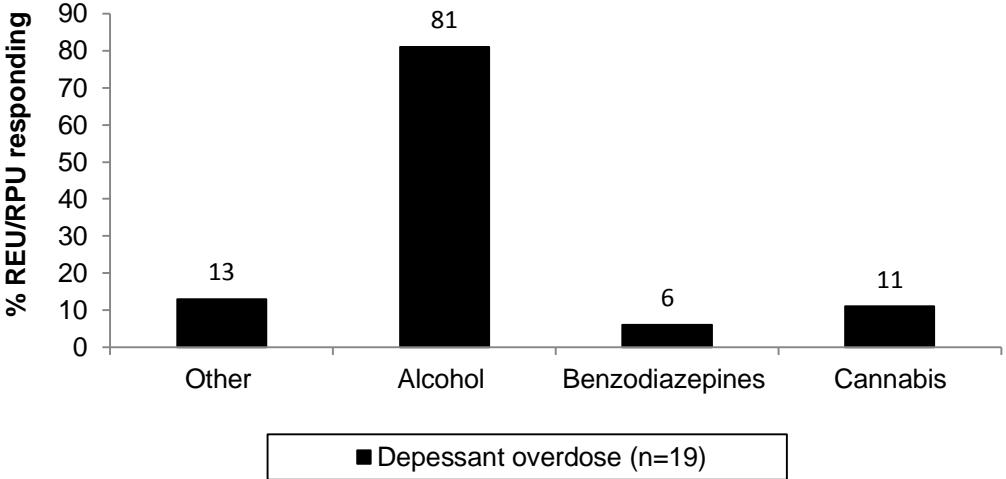
Stimulant overdoses were reported to occur equally on both ‘a normal night out’ and during ‘a heavy session’. The median amount of time spent “partying” prior to overdose was 7 hours (range 1-48). Only one-third (30%) reported that there was a sober person present at the time of overdose that was able to assist to them. Further, only two participants reported receiving formal immediate medical responses to these overdoses, with one receiving ambulance attendance and one attending a GP.

6.1.2. Depressant overdose

In 2012, over one-third (38%, n=34) of the sample reported experiencing an overdose on a depressant drug at some point in their lifetime, compared to almost one-third (29%) in 2010. This increase was not significant. Of those who had ever overdosed on a depressant drug, the median number of times they had done so was three times (range 1-50), compared to two times in 2010. The most recent depressant overdose occurred on a median of 12 months ago (range 1-108), which remains unchanged from 2010. This data is presented in Table 20.

Of those participants who reported experiencing a depressant overdose (n=34), more than half (56%, n=19) had experienced one in the past 12 months. As presented in Figure 41, the main drug depressant overdoses were attributed to was ‘alcohol’ (81%, n=13), followed by cannabis (11%, n=2) and benzodiazepines (6%, n=1). Additionally, over half (56%) reported taking another drug in combination when the depressant overdose occurred. Other drugs reported to be used in combination included cannabis (n=4), alcohol (n=2), ketamine (n=1), mushrooms (n=1) and pharmaceutical stimulants (n=1).

Figure 41: Drug attributed to most recent depressant overdose, 2012



Source: WA EDRS REU/RPU interviews, 2012

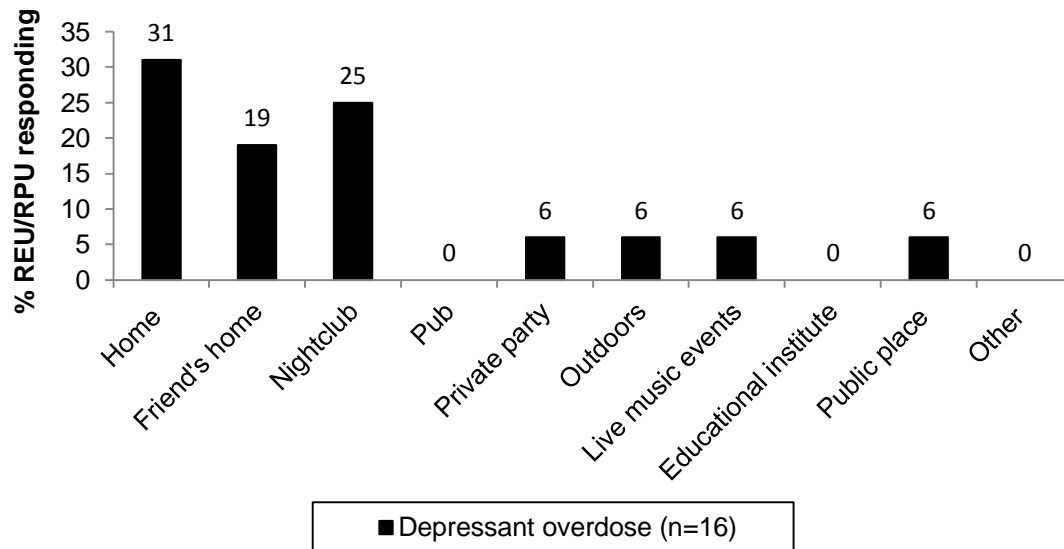
The most common main symptom experienced during depressant overdose was ‘vomiting’ (44%) and ‘losing consciousness’ (13%). There were also individuals reporting the main overdose symptom as ‘collapsing’, ‘depressive thoughts’, ‘suicidal ideation’, and ‘violent behaviour’.

The median time spent ‘partying’ prior to overdose on a depressant drug was 12 hours (range 1-108), and overdose occurred equally on ‘a normal night out’ and during ‘a heavy session’. Over half (56%) of those commenting reported that there was a sober person present at the time of overdose that was able to assist them. No participants reported receiving formal immediate medical treatment. Two participants

reported having sought further advice or treatment later, and this was sought from a general practitioner (GP) and a psychologist.

As presented in Figure 42, the most commonly reported locations where depressant overdoses occurred were at 'own home' (31%, n=5), a 'nightclub' (25%, n=4) or a 'friend's home' (19%, n=3).

Figure 42: Location of most recent depressant overdose, 2012



Source: WA EDRS REU/RPU interviews, 2012

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

6.2. Help-seeking behaviour

Participants were asked if they had accessed any medical or health services in relation to their drug use in the preceding six months. Of the current sample, 17% (n=15) reported accessing a service. The most commonly reported services accessed were general practitioners (44%, n=7) and psychologists (31%, n=5). There were a variety of drug-related issues nominated as the main reason for accessing a health service. These issues included 'aggression/violent behaviour', 'dehydration', 'overdose', 'dependence/addiction', 'anxiety', 'depression', 'other psychological problems', 'acute physical problems', 'information/advice on drug effects', and 'cutting down drug use'. The most common drug a general practitioner was seen in relation to was ecstasy (43%, n=3). The most common drug a psychologist was seen in relation to was also ecstasy (40%, n=2). The most common drugs a counsellor was seen in relation to were ecstasy, crystal meth and heroin (each 33%). It is important to note that of those who did access a medical or health service, the sample size was extremely small and therefore these results must be viewed objectively. Table 21 presents the proportion of participants who had accessed various health services.

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, 11% (n=10) had thought it, but had not acted. Various reasons were reported for not accessing help and these included, 'could not be bothered', 'can use my own resources to deal with my own problems', 'convinced myself it wasn't necessary', 'peer influence', and 'stigma of drug use and seeking help'.

Table 21: Proportion of REU/RPU who accessed health services, 2012

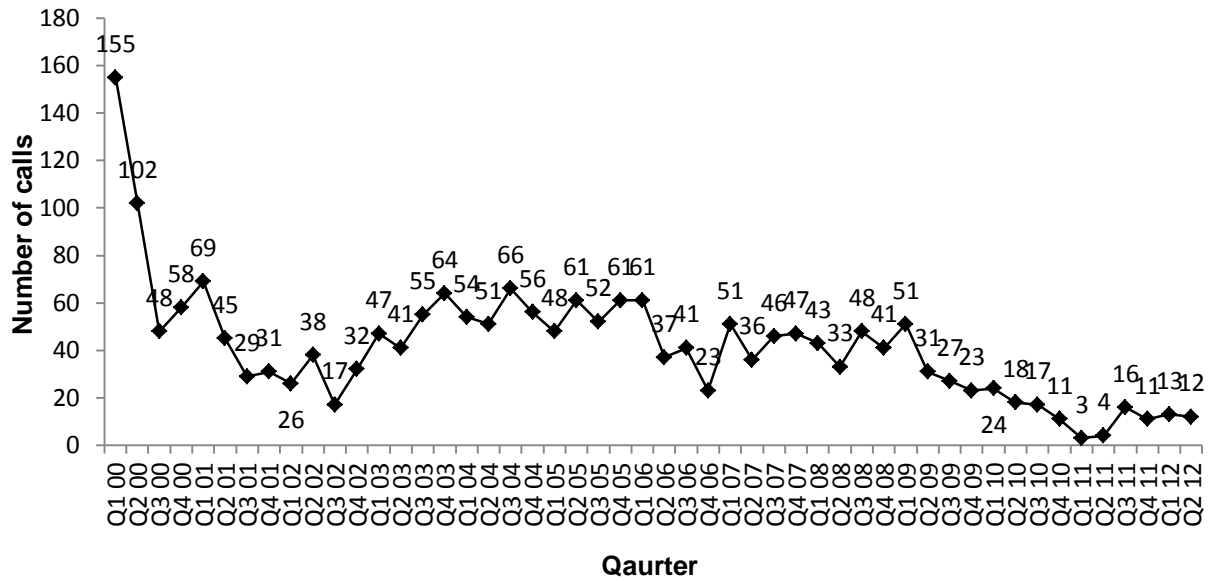
Service	2012 N=90
Accessed medical/health service (%)	17
<i>Of those who accessed service</i>	(n=17)
Service (%)	
GP	44
Psychologist	31
Counsellor	19
First aid	19
Emergency	19
Ambulance	7
Drug/alcohol worker	7
Telephone counsellor	7

Source: WA EDRS REU/RPU interviews, 2012

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 2011/12 period, ADIS received a total of 23,632 calls, in comparison to 21,236 calls during the previous period.

Calls to ADIS involving ecstasy as the primary drug of concern are presented by quarter in Figure 43. In the 2011/12 period, there were 52 calls to ADIS involving ecstasy as the primary drug of concern (i.e., approximately one call per week), compared to 35 calls the previous year. These calls comprised 0.2% of all calls received by ADIS during the 2011/12 period. As evident in Figure 43, calls concerning ecstasy have been consistently low in recent years.

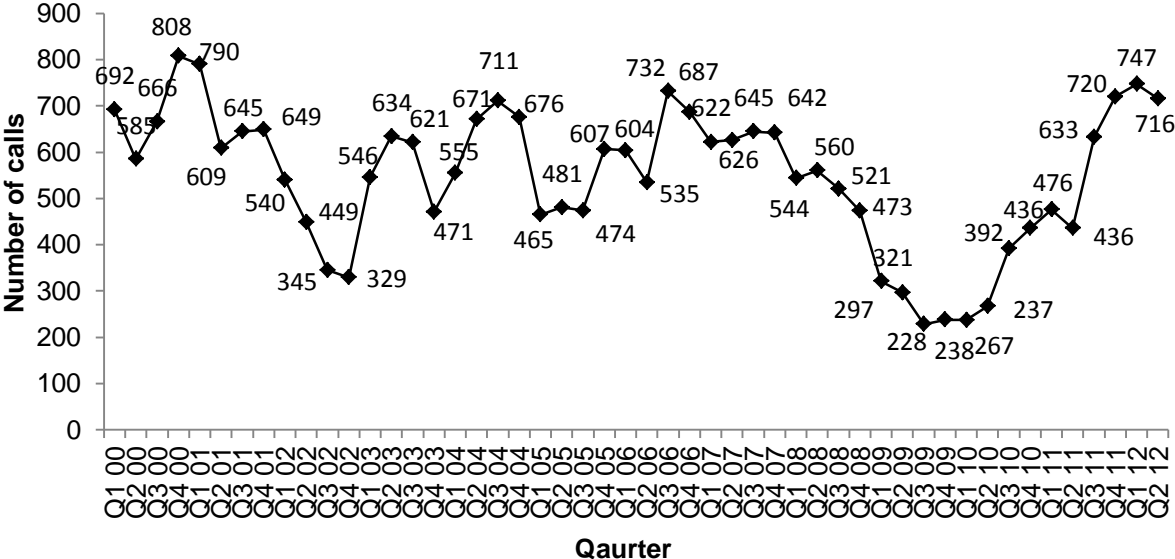
Figure 43: Number of ADIS inquiries concerning ecstasy as primary drug of concern, WA January 2000 to June 2012



Source: WA ADIS

In the 2011/12 period, there were a total of 2,816 calls to ADIS involving (meth)amphetamines as the primary drug of concern, in comparison to 1,740 in 2010/11 and 970 calls in 2009/10. These calls comprised 11.9% of all calls received by ADIS during the 2011/12 period, compared to 8.2% during the 2010/11 period. Calls to ADIS involving (meth)amphetamine as the primary drug of concern are presented by quarter in Figure 44. On the whole, calls regarding methamphetamine have been steadily increasing since 2009 and this trend continued into this period. The second half of 2011 saw a significant increase in calls which plateaued in the first half of 2012. Overall, 2012 recorded some of the highest rates of methamphetamine related calls on record.

Figure 44: Number of ADIS inquiries concerning (meth)amphetamines as primary drug of concern, WA January 2000 to June 2012



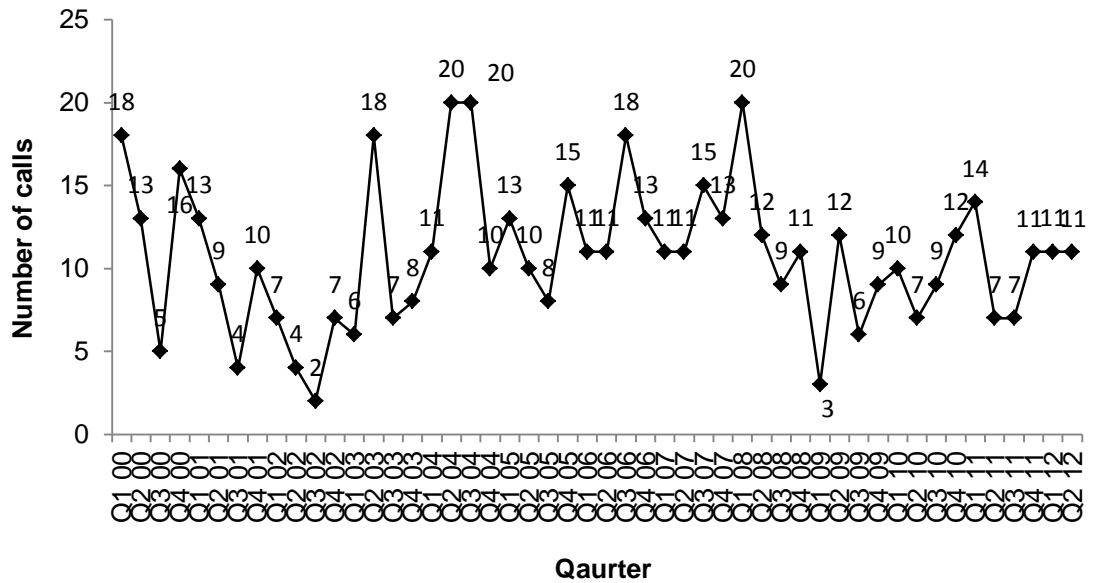
Source: WA ADIS

Key expert comments:

- A KE, from the WA ADIS, reported that there had been a 77% increase in calls related to crystal methamphetamine. This KE noted that calls were coming from both the user and significant others. It was reported that ADIS consider methamphetamine to be the drug causing the greatest concern at the time of interview (June 2012). The KE expressed concerns regarding a perceived increase in availability of crystal, an increase in the uptake of use by young people, and the wide array of harms caused by use. It was reported that the most common reasons for calling ADIS in relation to methamphetamine use included mental health issues such as paranoia, anxiety and depression following use, as well as issues with aggressive and violent behaviour.

In the 2011/12 period, there were 40 calls to ADIS involving cocaine as the primary drug of concern, compared with 42 calls the previous year. These calls comprised 0.17% of all calls received by ADIS during 2011/12, compared to 0.2% in the 2010/11 period. Calls to ADIS involving cocaine as the primary drug of concern are presented by quarter in Figure 45. Overall, the number of cocaine related calls received by ADIS has fluctuated but consistently remained low. As evident in Figure 45, the 2011/12 period is no exception to this trend.

Figure 45: Number of ADIS inquiries concerning cocaine as primary drug of concern, WA January 2000 to June 2012



Source: WA ADIS

Key expert comments:

- A KE, from the WA ADIS, reported that the number of calls involving cocaine as the primary drug of concern was fairly consistent with previous years. The KE also reported that most calls to the service concerning cocaine were from longer-term users concerned about long-term effects of use.

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 22).

The most common problem reported by the current sample was in the area of 'risk' (47%, n=42), followed by 'responsibility' (32%, n=29), 'social' (27%, n=24) and then 'legal' (9%, n=8). Of those who reported a 'risk' problem, such as driving while intoxicated, the greatest proportion attributed the risk to alcohol (69%, n=29), followed by ecstasy and cannabis (each 12%, n=5), crystal meth (5%, n=2) and then LSD (2%, n=1). Of those reporting a 'responsibility' problem (e.g. absences from work), the greatest proportion attributed the problem alcohol (55%, n=16), followed by cannabis (31%, n=6), crystal meth (10%, n=3), and then ecstasy (3%, n=1). Of those who reported a 'social' problem, over half attributed the problem to alcohol (54%, n=13), followed by cannabis (29%, n=7), crystal (13%, n=3) and then ecstasy (4%, n=1). Of those who reported a 'legal' problem the greatest proportion again attributed it to alcohol (62%, n=5), followed by cannabis (25%, n=2) and then crystal (13%, n=1).

Table 22: Self-reported drug-related problems and main drug implicated, 2012

	Any drug (N=90) [#]	Ecstasy (%) [*]	Speed (%) [*]	Crystal (%) [*]	Cannabis (%) [*]	Alcohol (%) [*]	Misc. (%) [*]
Social (%)	27 (n=24)	4	0	13	29	54	0
Legal (%)	9 (n=8)	0	0	12.5	25	62.5	0
Risk (%)	47 (n=42)	12	0	5	12	70	0
Responsibility (%)	32 (n=29)	3	0	10	31	55	0

Source: WA EDRS REU/RPU interviews, 2012

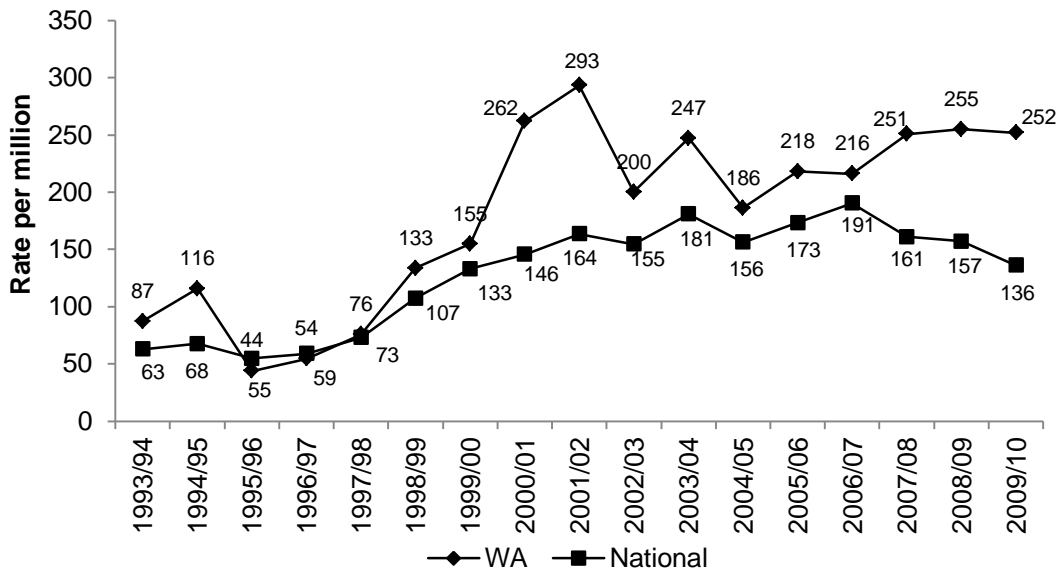
^{*} Of those who nominated the problem

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

6.4. Hospital admissions

Figure 46 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. It is evident that rates of admissions for amphetamines in WA continue to remain above the national level, and while WA rates have remained stable since 2007/08, national rates appear to be gradually declining.

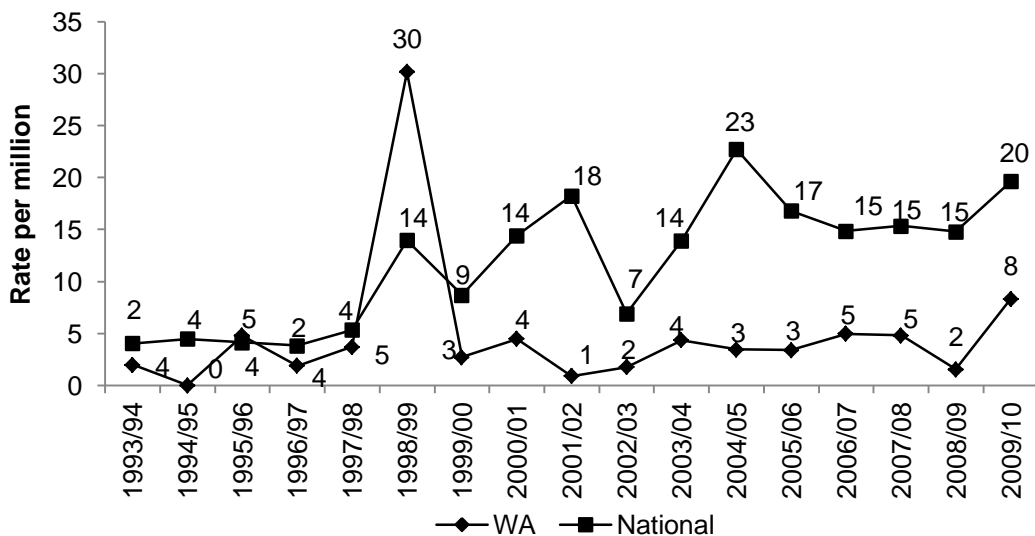
Figure 46: Rate of in-patient hospital admissions where (meth) amphetamines were the primary diagnosis in persons aged 15-54 in WA and nationally, July 1993-June 2010



Source: Australian Institute of Health and Welfare

As evident in Figure 47, rates of hospital admissions where cocaine was the primary diagnosis have remained consistently low over the preceding decade, with the exception of 1998/99. Since this peak, rates of cocaine-related hospital admissions have remained substantially lower than national rates. While both WA and national rates saw an increase in the 2009/10 period, rates remain well below the 1998/99 peak.

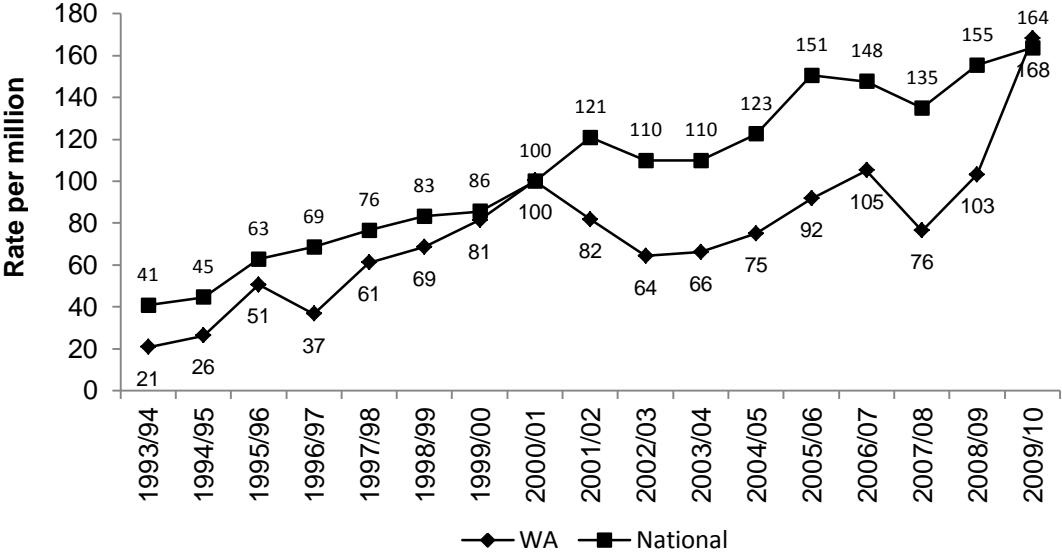
Figure 47: Rate of hospital admissions where cocaine was the primary diagnosis in persons aged 15-54 years, WA and nationally, July 1993-June 2010



Source: Australian Institute Health and Welfare

Figure 48 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, and represent the highest rates recorded to date. While rates of cannabis-related admissions in WA have generally been considerably below national rates, this increase brought WA rates in line with national rates for the first time since 2000/01.

Figure 48: Rate of hospital admissions where cannabis was the primary diagnosis in persons aged 15-54 years, WA and nationally, July 1993-June 2010



Source: Australian Institute Health and Welfare

Secondary indicator data relating to drug-related hospital admissions in the 2010/11 period 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).

6.5. Mental health problems

6.5.1. Mental health problems and psychological distress (K10)

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

The minimum score on the K10 is 10 (indicating no distress) and the maximum is 50 (indicating very high psychological distress). Work conducted at the Clinical Research Unit for Anxiety Disorders found that those scoring 30 or more have 10 times the population risk of meeting criteria for an anxiety or depressive disorder.

The K10 was included in the EDRS for the first time in 2006. Of the 90 respondents in 2012, the most common categories were no or low distress (score of 10-15) or moderate psychological distress (score of 16-21) each with 40% (n=26). This was followed by high psychological distress (score of 22-29) scored by 18% (n=16). Very

high levels of distress (score 30-50) was scored by only 1% (n=1) of REU/RPU. These results were not significantly different to those found in 2010.

Key expert comments

- The main drugs KEs expressed mental health concerns over were alcohol, cannabis and crystal methamphetamine.
- The main concern related to alcohol 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 development of psychosis. Concerns regarding methamphetamine were the greatest and were in the context of both short and long-term use. Mental health concerns included paranoia, agitation, anxiety, panic, depression and drug-induced psychosis.

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 last six months, including those issues that they hadn't spoken to a health professional about. From the current sample, approximately one-quarter (28%, n=25) reported experiencing a mental health problem in the past six months. Of these participants, the main mental health problem specified was 'anxiety' (60%, n=15), and this was followed by 'depression' (56% n=14), and 'paranoia' (8%, n=2). There were also individual reports of 'manic-depression/bipolar disorder', 'drug-induced psychosis', 'psychosis', 'ADHD', 'anger management problems', 'eating disorders', 'grief', 'obsessionality' and 'insomnia' (each 4%, n=1). Of the 25 participants who identified with having a mental health problem in the preceding six months, approximately two-thirds (64%, n=16) reported attending a mental health professional in this time. Another two participants reported attending a mental health professional in the preceding six months who do not identify with having a mental health problem.

Of those participants who reported attending a mental health professional (n=16), the majority (69%, n=11) reported being prescribed a medication in the last six months. Medications prescribed included anti-depressants, anti-psychotics and benzodiazepines. Of those who were prescribed a medication, the most commonly prescribed medications were anti-depressants (55%, n=6), including 'Lexapro'® (40%, n=2), 'sertraline', 'Luvox'® and 'Pristiq'® (each 20%, n=1). Benzodiazepines were the second most commonly prescribed (27%, n=3), including 'Antenex'®, 'Valium'® and 'temazepam'. Only one participant reported that they were prescribed anti-psychotic medication and that was 'olanzapine'.

6.6. Summary of health-related trends

Overdose, deaths and hospital admissions

- Approximately half (51%) of the current sample reported having overdosed on a stimulant drug at some point in their lifetime, which marks a significant increase from 2010 (21%).
- Over one-third (38%) reported having overdosed on a depressant drug at some point in their lifetime, which compares to 29% in 2010.
- Ecstasy was the most commonly implicated drug attributed to stimulant overdoses, while alcohol was the most commonly implicated drug in depressant overdoses.
- Hospital admissions in which amphetamine was the principal diagnosis appear to have remained stable in WA and continue to be above national level; rates for cocaine appear to have increased slightly on both state and national levels, and rates for cannabis saw a spike in the 2009/10 period, marking the highest rates recorded to date and bringing WA in line with national rates.

Service usage

- Access to medical or health services in relation to their drug use in the past six months was reported by 17%.
- The number of calls to ADIS concerning ecstasy remained low but stable. Calls to ADIS concerning ecstasy appear to have declined from early 2007 onward.
- Calls to ADIS concerning methamphetamine appear to have been increasing since late 2009 and continued to increase into the current period. During this period, calls concerning methamphetamine were among some of the highest on record.

Mental health

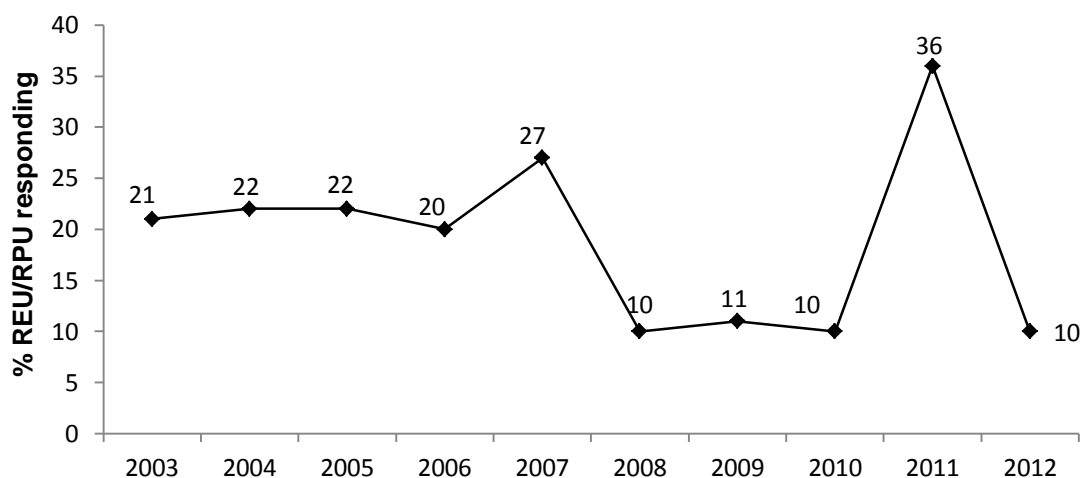
- The most commonly reported problem related to participant drug use was in the area of risk of injury (47%), followed by responsibly interferences (32%) and then social problems (27%). Recurrent drug-related legal problems were uncommon (9%).
- Alcohol was by far the most commonly implicated substance for social, legal, risk and responsibility problems.
- Approximately one-quarter (28%) of the current sample reported experiencing a mental health problem in the preceding six-months. Anxiety and depression were those most commonly reported issues.
- Participants completed the K10. Most fell into the low or moderate distress categories (each 46%), 18% fell into the high distress category, and only 1% fell into the very high distress category.

7. RISK BEHAVIOURS

7.1. Injecting risk behaviours

In 2012, 10% (n=9) of participants reported injecting a drug in their lifetime, which was the same proportion as in 2010. Of these, 67% (n=6) reported injecting in the preceding six months, which was comparable to 60% in 2010. As presented in Figure 49, rates of lifetime injecting have returned to normal after last year's disproportionate representation, which was attributed to substantial difficulties during the recruitment process.

Figure 49: History of reporting having ever injected drugs amongst WA REU/RPU samples, 2003-2012



Source: WA EDRS interviews, 2003-2012

7.1.1. Lifetime injectors

Context of initiation to injecting

Of those who had injected in their lifetime, all (100%, n=9) were male, compared to 60% male in 2010. The mean age of those who had injected was 29 years (range 20-41), in contrast to the mean age of 24 years for the entire sample.

Patterns of injecting drug use

Table 23 presents figures for the different drugs injected among those who reported lifetime and recent injection. Lifetime injectors (n=9) had injected a range of drugs, with the most commonly reported drugs ever injected being crystal methamphetamine (78%, n=9), followed by speed (67%, n=5), and then ecstasy, heroin and other opioids (each 44%, n=4).

Table 23: Injecting drug use history among REU/RPU injectors, 2012

Drug	Ever injected (%) n=9	Recently injected (%) n=6
Speed	67	33
Crystal	78	44
Base	33	0
Ecstasy pills	44	0
Heroin	44	11
Methadone	11	0
Pharmaceutical stimulants(illicit)	11	0
Cocaine	22	0
Buprenorphine	11	0
Other opiates	44	22

Source: WA EDRS REU/RPU interviews, 2012

7.1.2. Recent injectors

Patterns of injecting drug use

Of the six participants who reported injecting in the preceding six months, all were male and their average age was 29 years (range 20-41). Three out of the six (50%) recent injectors reported injecting crystal in the last six months, two out of the six (33%) recent injectors reported injecting other opioids in the last six months, and one recent injector reported injecting speed (17%). Of these participants, three reported last injecting crystal, two reported last using other opiates, and one reported last injecting speed. Five of the six recent injectors reported last injecting at their 'own home' and the remaining participant reported last injecting at a 'friend's home'.

Injecting risk behaviour

Among the six participants who reported injecting recently, there were no reports of having used a needle or syringe after another person had already used it. Only two participants reported sharing equipment, one reported using a tourniquet after someone had already used it and one reported using a spoon after someone else. Due to the extremely small sample size of six recent injectors, interpretation of this data should be done with caution.

Obtaining needles

All participants who reported injecting a drug recently reported that they obtained their needles from a chemist (compared to 83% obtaining needles from a Needle and Syringe Program in 2010). Again, these findings should be interpreted with caution due to the small number of participants.

Social contexts of injecting

Participants who had recently injected were asked who they usually injected in the company of. The most common response provided was 'close friends' (60%, n=3). Individual participants also reported that they typically injected in the company of regular sex partners or acquaintances. The median number of times recent injectors had injected a drug in the preceding 6 months was 13 times (range 1-24), compared to 15 times in 2010. This equates to injecting approximately every fortnight. Two out of the six recent injectors reported that they had recently injected while either under the influence of or coming down from drugs, which is the same as that reported for 2010. This occurred on a median of 1.5 times (range 1-2) in the last six months. Due to the extremely small sample of six recent injectors, this data should again be interpreted with caution.

7.2. Blood-borne viral infections (BBVI)

Participants were asked if they had ever been vaccinated against hepatitis B (HBV). Of the current sample, approximately one-third (36%, n=32) reported that they had completed vaccination against HBV and a further 2% (n=2) reported that they had begun vaccination but had not finished the schedule. Of the remainder, approximately one-third (34%, n=31) reported that they had not been vaccinated, and approximately one-quarter (27%, n=24) reported that they did not know whether they had been vaccinated. The most commonly reported reason for vaccination was 'vaccinated as a child' (19%, n=17), followed by 'work' (97%, n=6), 'going overseas' (6%, n=5) and then 'don't know/can't remember' (6%, n=5).

Participants were asked if they had ever been tested for hepatitis C virus (HCV). Of the current sample, 50% (n=45) reported that they had never been tested, 23% (n=21) reported that they had been tested in last year, 10% (n=9) reported being tested over one year ago, and 16% (n=14) reported that they did not know whether they had ever been tested. Of the current sample, there were two participants who reported that they were currently HCV positive. Both of these participants had a history of injecting drug use.

Participants were asked if they had ever been tested for human immunodeficiency virus (HIV). Of the current sample, 54% (n=49) had never been tested for HIV, 29% (n=26) had been tested in the last year, 14% (n=13) had last been tested over a year ago, and one participant did not know whether they had ever been tested. No participants reported that they were currently HIV positive; however, one reported that they didn't know/didn't get the result.

Participants were also asked whether they had had a sexual health check-up (such as a swab, urine, or other blood test) in the past year. Of the current sample, 44% (n=40) reported that they had, while 23% (n=21) reported having had their last sexual health check-up more than one year ago. Approximately one-quarter (23%, n=21) reported that they have never had a sexual health check-up.

The majority of participants (79%, n=71) reported that they had never been diagnosed with a sexually transmitted infection (STI). Of the remaining participants, 13% (n=12) reported an STI diagnosis more than one year ago, and 7% (n=6) reported a diagnosis in the past year. Of those who had been diagnosed with an STI at some point in their lifetime, 61% (n=11) had been diagnosed with Chlamydia, 22% (n=4) with HPV/genital warts, and 6% (n=1) with gonorrhoea.

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 is not a regular partner. Given the sensitive nature of these questions, participants were given the option of self-completing this section of the questionnaire.

Recent sexual activity

Participants were asked about the number of casual partners they had had penetrative sex with in the last six months. Of the current sample (N=90), 67% (n=61) reported engaging in casual penetrative sex in the past six months. Casual sex with one partner was reported by 10% (n=9), two partners was reported by 21% (n=19), three to five people by 22% (n=20), six to ten people by 10% (n=9), and more than ten people by 4% (n=4).

Drug use during sex

Of those participants who had had casual sex in the preceding six months (67%, n=61), almost everyone (97%, n=59) reported having done so whilst under the influence of alcohol or other drugs. Further, approximately one-third (32%, n=18) reported that casual sex whilst under the influence occurred more than ten times in the past six months. The most common drugs used on these occasions were alcohol (54%, n=32), ecstasy (46%, n=27), cannabis (37%, n=22) and crystal meth (19%, n=11). A complete breakdown of this data is presented in Table 24.

Table 24: Drug use during casual sex in the preceding six months, 2012

	2012 (n=61)
Penetrative casual sex while on drugs* (%)	97
<i>Of those who had penetrative casual sex under the influence of drugs</i>	(n=59)
Number of times (%)	
Once	9
Twice	16
3-5 times	32
6-10 times	12
Ten +	32
Drug used (%)	(n=59)
Ecstasy	46
Cannabis	37
Alcohol	54
Speed	3
Crystal	19
Cocaine	3
Pharmaceutical stimulants	7
LSD	3
Heroin	0
Benzodiazepines	3
Other opiates	2

Source: WA EDRS REU/RPU interviews, 2012

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

Protective barriers during sex

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, over half reported that they had not used a barrier (58%, n=33). Participants had various reasons as to why no barrier was used. The greatest proportion (31%, n=10) reported that 'it wasn't mentioned', followed by 'I didn't wish to use', 'we agreed not to', and 'using contraceptive pill' (each 16%, n=5). Participants also reported not using a barrier because 'we were too intoxicated' (13%, n=4), 'lack of availability' (6%, n=2), and 'did at first but then couldn't be bothered' (1%, n=1). When asked about whether a protective barrier had been used with the last casual sex partner when sober, almost half (48%, n=29) still had not, 40% (n=24) had, and 12% (n=7) reported that it was not applicable as they had not had casual sex when sober. The most commonly reported reason for not using a barrier when sober was 'using contraceptive pill' (28%, n=8), followed equally by 'I didn't wish to use', 'It wasn't mentioned' and 'we agreed not to' (each 24%, n=7).

7.4. Driving risk behaviour

In 2012, 91% (n=82) of participants reported driving a car in the last six months. Of these, more than half (59%, n=53) reported that they had driven under the influence of alcohol in the last six months, and most of these (90%, n =43) reported that they had driven while over the legal alcohol limit. This was similar to 2010 findings.

The median number of times participants had driven over the legal alcohol limit in the past six months was three times (range 1-25). Of the 43 who had driven while over the limit, eight reported that they only had a provisional license, three didn't have a current driver's license, and one only had a learner's permit. Of all those who had driven a car in the last six months (n=82), 42% (n=34) reported having been breathalysed in the last six months and 21% (n=7) 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; 55% (n=45) reported that they had. Of these participants, the median number of times they had driven after taking an illicit drug in the past six months was three times (range 1-180). The most commonly reported drugs used prior to driving were cannabis (64%, n=29), ecstasy (44%, n=20), crystal meth and pharmaceutical stimulants (each 24%, n=11). Smaller proportions reported driving after using LSD (7%, n=3), mushrooms (4%, n=2) and cocaine (2%, n=1). A full breakdown of this data is presented in Table 25. The median number of hours after which participants reported driving after consuming drugs was 2.5 hours (range 1-12).

Table 25: Drug driving in the last six months among REU/RPU, 2009-2012

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

Source: WA EDRS REU/RPU interviews, 2009-2012

* Within one hour of taking

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

- Data not collected

Participants who reported driving after illicit drug use (n=45) were asked about their perceived level of impairment. Perceptions of impairment were mixed. The greatest proportion of those who had driven after taking an illicit drug reported that they thought there was 'no impact' on their driving ability (42%, n=19), followed by 'slightly impaired' (33%, n=15), 'slightly improved' (16%, n=7), 'quite impaired' (3%, n=3) and then 'quite improved' (1%, n=1).

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, REU/RPU have been asked if they have ever been tested for drug driving by police roadside drug testing; from the current sample only four participants (5%) reported being tested. Two of these participants had been tested once and two had been tested more than once. Three tests returned a negative result and one test result was never received.

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, 37% (n=33) reported bingeing on ERD in the last six months. Bingeing occurred on a median of two occasions (range 1-14) during this six-month period. The median length of participants' longest binge was 50 hours (range 48-180). The most common drugs implicated in bingeing were ecstasy and alcohol (>5 standard drinks), nominated by 70% (n=23) of those who had bingeed. Other drugs implicated in bingeing included cannabis (55%, n=18), tobacco (39%, n=13), crystal methamphetamine (36%, n=12), pharmaceutical stimulants (33%, n=11), LSD (21%, n=7) and cocaine (15%, n=5). Small proportions also reported the use of speed (12%, n=4), nitrous oxide (6%, n=2), energy drinks, benzodiazepines, DMT, Kronic, and a range of research chemicals (each 3%, n=1) during the last binge occasion.

7.6. The Alcohol Use Disorders Identification Test (AUDIT)

The AUDIT (Saunders et al. 1993) was completed by all participants in 2012. The AUDIT was designed by the World Health Organization (WHO) as a brief screening scale to identify individuals with alcohol problems, including those in early stages. It is a 10-item scale, designed to assess three conceptual domains: alcohol intake, dependence, and adverse consequences (Reinert & Allen, 2002). Total scores of eight or more are recommended as indicators of hazardous and harmful alcohol use and may also indicate alcohol dependence (Babor et al., 1992). Higher scores indicate greater likelihood of hazardous and harmful drinking; such scores may also reflect greater severity of alcohol problems and dependence, as well as a greater need for more intensive treatment (Babor & Higgins-Biddle, 2000).

In the 2012 WA EDRS sample the mean AUDIT score was 15 (range 0-31). There were 71 participants (79%) who scored higher than the cut off of eight, indicating hazardous or harmful alcohol use. There was no significant difference between the male and female mean AUDIT total scores.

Key expert comments

- Two KEs reported that a large proportion of presentations to hospital emergency departments involve alcohol use.
- Two KEs reported that they have noticed an increase in young females' binge drinking in nightclubs to levels that put themselves and others at risk of harm. One KE also reported that he had observed an increase in young people presenting to pub/club venues already at very high levels of intoxication; he speculated that this could be related to a recent increase in drink prices in pubs/clubs.

7.7. Summary of risk behaviour

- One-tenth (10%) of the sample had injected a drug at some point in their lifetime and 6% had done so recently.
- Crystal methamphetamine was the most commonly reported drug injected.
- Among the six recent injectors, there were no reports of using a needle or syringe after someone else.
- About one-third (36%) had been vaccinated for HBV and about one-quarter didn't know if they had been vaccinated.
- Rates of testing for BBVI were low with 23% reporting a recent test for HCV and 29% for HIV. Additionally, 44% reported a recent sexual health check-up.
- Two participants reported testing positive to HCV and none reported testing positive to HIV.
- Penetrative sex with a casual partner in the six months preceding the interview was reported by 67%, and this occurred most commonly 3-5 times or in excess of 10 times during the six-month period.
- Of those who had had casual sex, most (97%) had done so while under the influence of alcohol and/or other drugs. The most commonly implicated drugs used were alcohol (54%), ecstasy (46%), cannabis (37%) and crystal (19%). Of these participants, more than half (58%) reported that they did not use a protective barrier with their last casual partner. The main reason was that 'it was not mentioned' (31%).
- Of those participants who had driven a car in the last six months (91%), 59% had done so while over the legal alcohol limit and 55% had done so after taking an illicit drug. The most commonly reported illicit drugs taken prior to driving were cannabis (64%) and ecstasy (44%).
- Bingeing on ERD was reported by 37% of the sample. The most commonly reported drugs implicated in bingeing were ecstasy and alcohol (each 70%).
- Participants completed the Alcohol Use Disorders Identification Test (AUDIT). The majority (79%) of the group fell in the 'hazardous or harmful drinking' range.

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

8.1. Reports of criminal activity among REU/RPU

Table 26 presents the proportion of participants reporting criminal activity in the month preceding the interview across survey years. Rates have remained similar across samples. In 2012, the proportion reporting any criminal activity was 29% (n=26), compared to 35% in 2010. Furthermore, as in previous years, drug dealing remained the most common crime, reported by 18% (n=16) in 2012 compared to 24% in 2010. Property crime was the next most common criminal activity, reported by 16% (n=14) in 2012, compared to 13% in 2010. Consistent with previous years, very few participants reported engaging in fraud 92% (n=2) or violent crime (1%, n=1). Of those who reported 'drug dealing', 63% (n=10) reported doing so less than once a week. Similarly, 79% (n=11) of those reporting 'property crime' did so less than once a week. In 2012, 10 participants reported being arrested in the last 12 months, compared to 13 in 2010. Reasons for arrest varied; the most common reason reported was 'alcohol and driving' (n=5), and other reasons included 'violent crime' (n=2), 'public urination', 'property crime' and 'fraud' (each n=1).

Table 26: Criminal activity in the past month reported by REU/RPU, 2003-2012

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
Any crime (%)	38	30	32	26	39	31	38	35	39	29
Drug dealing (%)	36	25	24	23	31	24	32	24	21	18
Property crime (%)	5	10	9	9	16	7	6	13	11	16
Fraud (%)	2	4	6	2	4	2	0	2	7	2
Violent crime (%)	0	4	2	1	5	3	3	3	7	1
Arrested last 12 months (%)	9	13	14	14	12	5	19	13	18	11

Source: WA PDI/EDRS REU/RPU interviews, 2003-2012

Table 27 presents the number of consumer and provider arrests for amphetamine-type stimulants (ATS), cannabis, cocaine and hallucinogens in WA from 2004 to 2011 (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).

For ATS, the number of both consumer and provider arrests in 2010/2011 were comparable to 2009/2010. In 2010/2011, WA had the fourth highest number of consumer arrests (1,130) following Queensland (2,861), NSW (2,729) and Victoria (2,213). WA had the fifth highest number of provider arrests (457), following NSW (947), Victoria (898), South Australia (515), and Queensland (459). For all drug classes, during 2010/11 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.

Table 27: Consumer and provider arrests by drug type, 2010/2011

Drug	Consumer Arrests	Provider Arrests	Total
ATS	1,130 (71%)	457 (29%)	1,587 (100%)
Cannabis	4,432 (88%)	613 (18%)	5,047 (100%)
Cocaine	31 (50%)	31 (50%)	62 (100%)
Hallucinogens	34 (69%)	15 (31%)	49 (100%)
Total	7,119 (82%)	1,547 (18%)	8,666 (100%)

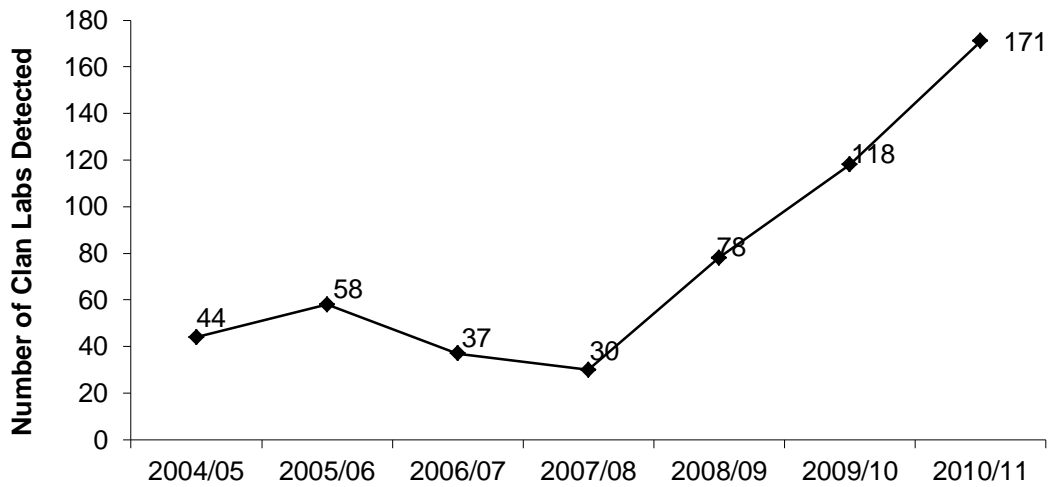
Source: ACC, 2012

In 2010/11, the number of clandestine laboratories detected in WA increased from 118 to 171, a figure exceeded only by Queensland with 293 detections. Of these 171 labs, 98% (n=168) were manufacturing ATS other than MDMA (see Figure 50). All labs detected in this period were using the Nazi/Birch method of production (i.e., involving red phosphorous and liquid ammonia) (ACC, 2012).

Key expert comments

- Two KEs, from the law enforcement sector, reported that there had been an increase in the number of “improvised manufacturing labs or ‘clan labs’”. One KE also considered ‘clan labs’ to be the most problematic drug-related issue for them during the time of the interview (July 2012). This KE reported that in WA, methamphetamine manufacture continues to be exclusively undertaken using the “NAZI method”, and expressed concern over the volatile nature of the chemicals involved and the risk of fires and explosions in these labs. The KE reported that this poses 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.
- Another KE, also from the law enforcement sector, noted that because the price of methamphetamine was higher in WA than in other Australian jurisdictions, more users were trying to manufacture their own drugs. A second KE from law enforcement supported this, indicating that most clandestine laboratories detected were small operations made up of “small user groups” making only a few grams at a time. It was speculated that the price of methamphetamine in WA could be higher than other jurisdictions because it has a booming mining industry, and many FIFO workers have a high disposable income and are therefore willing to pay high prices.

Figure 50: Number of clandestine (meth)amphetamine laboratories detected by WA police 2004/05-2010/11



Source: ACC, 2006-2012

8.2. REU/RPU's perceptions of police activity

As presented in Table 28, REU have consistently perceived police activity towards them as either stable or increasing. In 2012, just over half of the sample (51%, n=46) reported that they perceived police activity as 'stable' over the preceding six months. This marks the highest proportion of participants perceiving police activity as stable since the EDRS commenced in 2003. These findings suggest that perceptions of police activity toward REU may be decreasing, with less perceiving police efforts to be targeting them.

Table 28: Perceptions of police activity by REU/RPU, 2003-2012

Recent police activity	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
Decreased	6	4	0	0	6	0	0	2	0	1
Stable	34	38	36	41	33	35	22	34	36	51
Increased	29	29	43	34	24	26	42	37	29	20
Don't know	31	29	21	25	37	39	36	27	36	26

Source: WA EDRS REU interviews, 2003-2012

8.3. Summary of law enforcement-related issues

- Involvement in any criminal activity was reported by 29% of the current sample.
- Drug dealing remained the most common criminal activity reported (18%), followed by property crime (16%).
- Ten participants had been arrested in the preceding 12 months. Alcohol and driving was the most commonly reported cause of arrest.
- During 2010/11 there were 7,119 drug-related consumer arrests and 1,547 provider arrests. The most commonly implicated drug for both types was cannabis.
- There were 171 clandestine laboratories detected during 2009/10, compared with 118 the previous year. The majority were producing ATS.
- KEs from law enforcement expressed concerns over the risks of dismantling clandestine methamphetamine laboratories and the associated drain on police resources as lab detections increase.
- Police activity toward REU was predominantly perceived as stable.

9. SPECIAL TOPICS OF INTEREST

9.1. Fagerstrom test for nicotine dependence

For the second year consecutively, EDRS participants who smoked daily (n=29) were asked questions from the Fagerstrom test for nicotine dependence (FTND). This test includes questions such as: 'How soon after waking do you smoke your first cigarette?' and 'How many cigarettes a day do you smoke?' The sum of these scores was computed and a cut-off score of more than 5 was used to indicate high to very high nicotine dependency (Heatherton et al., 1991).

As presented in Table 29, approximately one-third (34%, n=10) of daily smokers reported smoking their first cigarette within 30 minutes of waking and approximately three-quarters (76%, n=22) reporting smoking it within the first hour. Most (62%, n=18) daily smokers did not find it difficult to refrain from smoking in smoke free areas. Over one-third (36%) reported they would find the first cigarette in the morning the most difficult to give up. Half of the daily smokers (50%, n=14) reported smoking 10 or fewer cigarettes per day. A minority (11%, n=3) reported that they smoke more frequently in the morning, and almost two-fifths (39%) reported that they still smoke while sick in bed. The mean NDS score was 2.7 (SD 1.83). Ten percent (n=3) of daily smokers scored above five in the FTND, indicating high to very high nicotine dependence.

Table 29: Fagerstrom test for nicotine dependence, 2012

(%)	n=29
Time for first cigarette after waking	n=29
Within 5 minutes	7
5-30 mins	28
31-60 mins	41
60+ mins	24
Difficulty in refraining from smoking in forbidden places	n=28
Yes	11
What cigarette would you hate to give up	n=28
First in the Morning	36
Other	64
Number of cigarettes smoked a day	n=28
10 or less cigarettes	50
11-20 cigarettes	39
21-30 cigarettes	11
31 or more cigarettes	0
Smoke more frequently in the morning	n=28
Yes	11
Smoke in bed even when sick	n=29
Yes	39
High dependence*	n=29
(%)	10
Mean score	2.7

Source: WA EDRS REU/RPU interviews, 2012

* score of 6 and above

9.2. 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 2012, participants in the EDRS were asked questions from the SDS to investigate ecstasy dependence. The SDS is a five-item questionnaire designed to measure the degree of dependence on a variety of drugs. The SDS focuses on the psychological aspects of dependence, including impaired control of drug use, and preoccupation with and anxiety about use. The SDS appears to be a reliable measure of the dependence construct. It has demonstrated good psychometric properties with heroin, cocaine, amphetamine, and methadone maintenance patients across five samples in Sydney and London (Dawe et al., 2002). A total score was created by summing responses to each of the five questions. Possible scores range from 0 to 15. A cut-off score of four was used to determine those whose scores were suggestive of dependence (Bruno, Gomez & Matthews, 2011).

There were only four participants (4%) in the 2012 WA EDRS sample who scored above the dependency cut off of 4, and they were all male. Therefore, the vast majority of participants (96%, n=86) did not score high enough to be considered dependent on ecstasy. Of the overall sample, 84% (n=76) reported that they never/almost never thought their use of ecstasy was out of control in the past six months, 87% (n=78) reported they never/almost never wished they could stop, and 90% (n=81) reported that they would not find it difficult to stop or go without ecstasy.

9.3. Policy

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

The policy questions were drawn from the National Drug Strategy Household Survey (Australian Institute of Health and Welfare, 2008) to ensure comparability with general population responses. Participants in the 2012 EDRS were asked three policy questions: (1) 'Thinking about the problems associated with heroin use, to what extent would you support or oppose measures such as.....', (2) 'To what extent would you support or oppose the personal use of the following drugs being made legal?' and (3) 'To what extent would you support or oppose the increased penalties for sale or supply of the following drugs?'

Table 30 presents the collated 'strongly support' and 'support' response findings from participants in the WA EDRS. The majority of participants commented (98%, n=89),

with 85% (n=76) supporting Needle and Syringe Programs to reduce problems associated with heroin use. The majority of participants also supported methadone/buprenorphine maintenance programs (56%, n=50), treatment with drugs (other than methadone) (60%, n=53), and regulated injecting rooms (65%, n=58).

The majority of REU/RPU supported the legalisation of cannabis (73%, n=64) for personal use and just under half (44%, n=39) supported the legislation of ecstasy for personal use (see Table 30).

Given the large proportion of those supporting legalisation of cannabis and ecstasy for personal use, it was not surprising that only small numbers supported increased penalties for sale or supply of cannabis (7%) and ecstasy (12%). Support for increased penalties for other drugs was a little more favourable, with almost half the sample supporting increased penalties for the sale or supply of heroin (46%) and methamphetamine (45%) (see Table 30).

Table 30: Support for measures to reduce problems associated with heroin, for legalisation of illicit drugs and the increase of penalties for illicit drugs, WA 2012

Policies	(n=89)
Support measures to reduce problems associated with heroin use (%):	n=89
Needle Syringe Programs	85
Methadone/Buprenorphine maintenance program	56
Treatment with drugs (not methadone)	60
Regulated injecting room	65
Trial of prescribed heroin	33
Rapid detoxification therapy	48
Use of naltrexone	46
Support legalisation (personal use) of:	n=89
Cannabis	73
Heroin	9
Methamphetamine	11
Cocaine	18
Ecstasy	44
Support increased penalties for sale or supply of illicit drugs:	n=89
Cannabis	7
Heroin	46
Methamphetamine	45
Cocaine	24
Ecstasy	12

Source: WA EDRS interviews, 2012

9.4. Body Image Module

Research has highlighted a link between psychostimulant use and body image, suggesting that adolescent girls and young women with negative weight perceptions are more likely to engage in both licit and illicit substance use (Leventhal, 1983; Nieri, Kulis, Keith & Hurdle, 2005; Weathers & Billingsley, 1982). Negative weight perceptions are of particular concern for psychostimulant users because, in addition to acting as mood enhancers, psychostimulant drugs suppress the appetite. Other studies have found that female stimulant users exhibit higher levels of body image distortions and disordered eating behaviours than non-users (Curran & Robjant, 2006; Parkes, Saewyc, Cox & MacKay, 2008) and that some young women report using these drugs specifically to lose weight (Boys, Marsden & Strang, 2001). For example, a recent Australian case report found that crystal meth or 'ice' use was associated with the onset of disordered eating and used as an efficient weight losing behaviour in an established eating disorder (Neale, Abraham & Russell, 2009). The aim of this module is to enhance understanding of the relationship between illicit psychostimulant (IPS) drug use and body image. Characteristics of REU/RPU who reported ever using IPS for weight management are presented in Table 31.

Table 31: Characteristics of REU/RPU who reported ever using IPS for weight management compared to those who did not, 2012

Have you ever used IPS to help lose or maintain weight? n (%)	No n=77	Yes n=13
Gender		
Male	52(68)	2(15)
Female	25(33)	11(85)
BMI		
<18.5 (Underweight)	2(3)	0(0)
≥18.5 (≥Normal)	7(97)	13(100)
Which IPS have you ever used to help lose or maintain weight?		
Ecstasy	-	6 (46)
Methamphetamine	-	5 (39)
Dexamphetamine	-	2 (22)
Ritalin	-	9(70)
Other/Don't know^	-	1 (7)
	-	2(16)
Which IPS did you last use to help lose/maintain weight?#		n=8
Ecstasy	-	25 (1)
Dexamphetamine	-	50 (2)
Other/ Don't know	-	1 (25)
Are you concerned you have lost too much weight loss because of your IPS use?		
Yes	4 (5)	2 (15)
No	73 (95)	11 (85)
Are you concerned that if you stop using IPS you will gain weight?		
Yes	3 (4)	4 (31)
No	74 (96)	9 (69)
Would weight gain be a desirable outcome should you cease or stop your IPS use?		
Yes	4 (5)	2 (15)
No	73 (95)	11 (85)

Source: WA EDRS interviews, 2012

^Clenbuterol and diet pill

#Of those who used IPS to lose or maintain weight during the past 6 months

Of the current sample, 14% (n=13) reported ever using IPS to lose or maintain weight, of which 85% were female. The most commonly reported drug used for losing or maintaining weight was dexamphetamine (70%, N=9). Only four participants reported recent use/use in the past six months of IPS to lose or maintain weight.

9.5. Neurological History Module

People with a neurological illness or injury may be at greater risk of experiencing adverse effects associated with drug use. Existing research indicates that there is an association between traumatic brain injury (TBI) and drug use (Corrigan, Bogner, & Holloman, 2012). This may be due to greater exposure to violence, mental illness, poor nutrition and poor sleep among other factors. TBI is a major cause of morbidity and mortality in developed countries (Bruns & Hauser, 2003) and can result in long term physical and cognitive impairments, as well as negatively impact upon psychological wellbeing, and social and occupational outcomes (Tait, Anstey, & Butterworth, 2010). The cognitive, emotional and functional impairments associated with drug use could potentially compound those associated with TBI (Kelly, Johnson, Knoller, Drubach, & Winslow, 1997). In 2012, the EDRS examined the prevalence of selected neurological illnesses and also of TBI among REU/RPU. Table 32 and Table 33 outline the results of this investigation.

Table 32: Incidence of selected neurological conditions among REU/RPU, 2012

n (%)	(N=90)
Epilepsy	2 (2%)
Stroke	0
Hypoxia	0
Traumatic brain injury	42 (47%)

Source: WA EDRS REU/RPU interviews, 2012

TBI was measured as a knock on the head resulting in loss of consciousness

The lifetime prevalence of epilepsy was low in this group (2%) and comparable with the Australian population estimate (0.7%) obtained in the 2007-08 National Health Survey (ABS, 2010). Data from the same survey estimates the Australian prevalence of cerebrovascular disease (including stroke) as approximately 1.2%, substantially higher than the proportion reported in the current sample. This is likely due to the fact that this sample was largely young¹² and that the category used in the national survey includes all other forms of cerebrovascular illness. It is difficult to estimate the prevalence of hypoxic brain injury because it can result from a range of different situations (including drowning, carbon monoxide poisoning, heart attack etc.). Regardless, this condition was not reported in the current sample. In contrast, almost half of the current sample (47%, n=42) reported a lifetime history of TBI.¹³ In a recent study, Perkes et al. (2011) estimated the lifetime prevalence of TBI with loss of consciousness (LOC) as 35% among a community sample of males in Australia. Similarly, a cohort study conducted in Christchurch, New Zealand, demonstrated that approximately 32% of the community sample had experienced at least a mild traumatic brain injury by 25 years of age. Both of these prevalence estimates are lower than that recorded in our sample. However, caution should be used when directly comparing these figures due to differences in sampling techniques and data collection.

¹² Three quarters of all new stroke events occur in people aged 65 years and older (Bonita, 1992).

¹³ TBI was measured as a knock on the head resulting in loss of consciousness.

Table 33: Traumatic brain injury (TBI) among REU/RPU, 2012

	(n=42)
Median No. TBIs	1 (1-5)
For most severe TBI:	
Median LOC^a (mins)	3
Injury severity (%)	
Mild TBI ^b	93
Moderate/Severe TBI ^c	7
Median age (years)	17
Under influence of alcohol (%):	26
Under influence of drugs (%):	12
Main drug^a:	n=5
Cannabis	60
Ecstasy	20
Benzodiazepines	0
Heroin	0
Speed	0
Ice/Crystal	0

Source: WA EDRS REU/RPU interviews, 2012

^a LOC = Loss of consciousness. ^b LOC<30 minutes. ^c LOC≥ 30 minutes.

Multiple TBIs were not uncommon in this group and the median number of TBIs experienced over the lifetime was one (range 1-5). Participants were asked further details about the most severe occasion. The vast majority of participants who had experienced a TBI reported that the LOC on the most severe occasion lasted only a few minutes (consistent with a mild injury). However, there was a small proportion of this group (7%, n=3) that reported a LOC of greater than half an hour (consistent with a moderate to severe TBI). The most severe TBI had usually occurred during the late-teens, at a median of 17 years of age (range 7-28). Approximately one-quarter (26%, n=11) of the group were under the influence of alcohol at the time of injury and approximately one-tenth (12%, n=5) were under the influence of at least one drug. Of these, more than half (60%, n=3) reported they had been under the influence of cannabis and one-fifth (20%, n=1) had taken ecstasy.

Some people experience neuropsychological sequelae (symptoms such as cognitive, motor and behavioural changes) following a TBI which can complicate recovery. Almost half of those who had experienced a TBI (44%, n=18) reported having experienced neurological sequelae immediately following the injury (see Table 34). The most common complaints were weakness (72%), poor coordination/balance (61%), poor concentration (50%) and memory problems (50%). Ongoing complaints were less common (22% of those that had a TBI, n=9). Participants who had experienced ongoing issues complained of ongoing memory deficits (22%), ongoing word finding problems while speaking (22%), ongoing concentration difficulties (22%) and ongoing weakness (11%).

Table 34: Effects of traumatic brain injury (TBI) among REU/RPU, 2012

	(n=41)
Experienced any effects^a following the injury (%)	44
Experienced at the time (%):	n=18
Functional weakness	28
Poor concentration	50
Memory loss	50
Word finding problems	28
Poor coordination/ balance	61
Personality change	11
Mood/Anxiety issues	11

Source: WA EDRS REU/RPU interviews, 2012

^a Neurological, cognitive, behavioural or psychiatric effects.

9.6. Summary of special interest topics

- Approximately one-third (32%, n=29) of the current sample reported smoking cigarettes daily. Of these, 10% (n=3) were classified as highly dependent on nicotine.
- Only 4% (n=4) of the sample scored high enough on the SDS scale to be considered dependent on ecstasy.
- The majority of participants supported harm reduction measures such as Needle Syringe Programs and regulated injecting rooms to reduce problems associated with heroin use.
- The majority of participants (73%) supported the legalisation of cannabis for personal use and almost half (44%) supported legalisation of ecstasy in this context as well.
- Use of an illicit psychostimulant drug to lose or maintain weight was reported by 14%, of which 85% were female. Dexamphetamine was the most commonly reported drug used in this context.
- Incidence of specific neurological conditions was extremely low in the current sample, with the exception of traumatic brain injury (TBI) which was reported by almost half of the sample (47%). Of those who had experienced a TBI, 26% had been under the influence of alcohol and 12% under the influence of other drugs during the most severe TBI.

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 (46%, n=41); this was followed by 'about half' (26%, n=23), 'a few' (23%, n=21) and then 'all' (6%, n=5).

Participants were also asked if there was anything new happening in drug use among them or their friends in the past six months; 42% (n=38) reported that there was. There was a variety of comments related to ecstasy use, as well as comments related to other traditional drugs and emerging psychoactive drugs. Some comments were in congruence with each other; however, some were in opposition. Small numbers here necessitate caution in interpretation of these results.

There were several participants (n=7) reporting an increase in ecstasy use, believed to be attributed to a 'comeback' in ecstasy purity and 'quality'. However, in contrast to this, there were also participants (n=4) reporting that ecstasy purity is still low and that this is causing people to experiment with/use alternative drugs, such as crystal methamphetamine, cocaine, pharmaceutical stimulants and synthetic drugs. One participant also reported that "more people are using ecstasy again as there are a few good batches of pills going around; however, the general quality is probably still poor". Two participants also reported that ecstasy powder and 'blocks' have become available in the past four to six months preceding the interview. Another two also reported that there was an increase in the availability and use of capsule forms of ecstasy.

There were also a variety of comments related to a general increase in the use of crystal methamphetamine (n=5), dexamphetamine/pharmaceutical stimulants (n=4), cocaine (n=3), LSD (n=2), DMT (n=2), 'herbal' highs (n=3), designer drugs/research chemicals (n=3), oxycodone (n=1) and general polydrug use (n=1).

Three participants reported that the more ecstasy purity and availability declines, the more young people will start using more harmful alternatives, particularly crystal meth. Accordingly, the more ecstasy purity increases and becomes more available the less people will use harmful alternatives. One participant also reported that "smoking meth has become normalised" and that "several suicides have occurred recently by young people who were meth users".

A few participants (n=3) also reported that there is increase in access to different types of drugs via online stores and the internet; for example, synthetic drugs and 'herbal' or 'legal' highs.

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