

# South Australia

R. Sutherland and L. Burns

**SA TRENDS IN ECSTASY AND RELATED DRUG MARKETS 2014**  
Findings from the Ecstasy and Related Drugs Reporting System (EDRS)

Australian Drug Trends Series No. 141



# **SOUTH AUSTRALIAN TRENDS IN ECSTASY AND RELATED DRUG MARKETS 2014**



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

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National Drug and Alcohol Research Centre  
University of New South Wales

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## ABBREVIATIONS

|            |                                                                                                                                                             |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1,4B       | 1, 4 butanediol                                                                                                                                             |
| 2CB        | 4-bromo-2, 5-dimethoxyphenethylamine                                                                                                                        |
| 2CE        | 2, 5-dimethoxy-4-ethylphenethylamine                                                                                                                        |
| 2CI        | 2, 5-dimethoxy-4-iodophenethylamine                                                                                                                         |
| 2C-x       | General name for the family of psychedelic phenethylamines containing methoxy groups on the 2 and 5 positions of a benzene ring (includes 2CB, 2CE and 2CI) |
| 25B-NBOMe  | 1-(4-Bromo-2,5-dimethoxyphenyl)-N-[(2-methoxyphenyl)methyl]ethanamine                                                                                       |
| 25C-NBOMe  | 1-(4-Chloro-2,5-dimethoxyphenyl)-N-[(2-methoxyphenyl)methyl]ethanamine                                                                                      |
| 25I-NBOMe  | 1-(4-Iodo-2,5-dimethoxyphenyl)-N-[(2-methoxyphenyl)methyl]ethanamine                                                                                        |
| 4-MTA      | 4-methylthioamphetamine                                                                                                                                     |
| 5MeO-DMT   | 5-methoxy-dimethyltryptamine                                                                                                                                |
| ABS        | Australian Bureau of Statistics                                                                                                                             |
| ACC        | Australian Crime Commission                                                                                                                                 |
| ADIS       | Alcohol and Drug Information Service                                                                                                                        |
| AFP        | Australian Federal Police                                                                                                                                   |
| AGDH       | Australian Government Department of Health                                                                                                                  |
| AIHW       | Australian Institute of Health and Welfare                                                                                                                  |
| AODTS-NMDS | Alcohol and Other Drug Treatment Services National Minimum Data Set                                                                                         |
| A&TSI      | Aboriginal and/or Torres Strait Islander                                                                                                                    |
| AUDIT      | Alcohol Use Disorders Identification Test                                                                                                                   |
| BAC        | Blood alcohol concentration                                                                                                                                 |
| BBVI       | Blood-borne viral infection(s)                                                                                                                              |
| BZP        | Benzylpiperizine(s)                                                                                                                                         |
| CI         | Confidence intervals                                                                                                                                        |
| CME-DIS    | Client Management Engine-DASC Information System                                                                                                            |
| DASC       | Drug and Alcohol Services Council                                                                                                                           |
| DASSA      | Drug and Alcohol Services South Australia                                                                                                                   |
| DOB        | 2, 5-dimethoxy-4-bromoamphetamine                                                                                                                           |
| DOI        | 2, 5-dimethoxy-4-iodoamphetamine, 'Death on Impact'                                                                                                         |
| DOM        | 2, 5-dimethoxy-4-methylamphetamine                                                                                                                          |
| DMT        | Dimethyltryptamine                                                                                                                                          |
| DSM-IV-TR  | Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, text revision                                                                        |
| DXM        | Dextromethorphan                                                                                                                                            |
| ED         | Emergency Department                                                                                                                                        |
| EDRS       | Ecstasy and Related Drugs Reporting System                                                                                                                  |
| ERD        | Ecstasy and related drug(s)                                                                                                                                 |
| GBL        | Gamma-butyrolactone                                                                                                                                         |
| GHB        | Gamma-hydroxybutyrate                                                                                                                                       |
| GP         | General practitioner                                                                                                                                        |
| ICD-9      | International Statistical Classification of Diseases and Related Health Problems, Ninth Revision                                                            |

|        |                                                                                                  |
|--------|--------------------------------------------------------------------------------------------------|
| ICD-10 | International Statistical Classification of Diseases and Related Health Problems, Tenth Revision |
| IDRS   | Illicit Drug Reporting System                                                                    |
| IDU    | Person(s) who inject(s) drugs; injecting drug user(s)                                            |
| K10    | Kessler Psychological Distress Scale                                                             |
| KE     | Key expert(s)                                                                                    |
| LSA    | <i>d</i> -lysergic acid amide                                                                    |
| LSD    | <i>d</i> -lysergic acid                                                                          |
| MDA    | 3, 4-methylenedioxyamphetamine                                                                   |
| MDEA   | 3, 4-methylenedioxyethylamphetamine                                                              |
| MDMA   | 3, 4-methylenedioxymethamphetamine/‘ecstasy’                                                     |
| MDPV   | Methylenedioxypropylvalerone                                                                     |
| ML     | (or ml) Millilitres                                                                              |
| N      | (or n) Number of participants                                                                    |
| NBOMe  | N-methoxybenzyl                                                                                  |
| NDARC  | National Drug and Alcohol Research Centre                                                        |
| NDLERF | National Drug Law Enforcement Research Fund                                                      |
| NDSHS  | National Drug Strategy Household Survey                                                          |
| NHMD   | National Hospital Morbidity Database                                                             |
| NNDSS  | National Notifiable Diseases Surveillance System                                                 |
| NPS    | New psychoactive substances                                                                      |
| NSP    | Needle and Syringe Program                                                                       |
| OCD    | Obsessive compulsive disorder                                                                    |
| OST    | Opioid substitution treatment                                                                    |
| OTC    | Over the counter                                                                                 |
| PDI    | Party Drugs Initiative                                                                           |
| PMA    | Para-methoxyamphetamine                                                                          |
| PPA    | Price, purity and availability                                                                   |
| RAH    | Royal Adelaide Hospital                                                                          |
| REU    | Regular ecstasy users(s)                                                                         |
| ROA    | Route of administration                                                                          |
| RPU    | Regular psychostimulant users(s)                                                                 |
| SA     | South Australia                                                                                  |
| SAPOL  | South Australia Police                                                                           |
| SEN    | Simple Expiation Notice                                                                          |
| SD     | Standard deviation                                                                               |
| SDS    | Severity of Dependence Scale                                                                     |
| SPSS   | Statistical Package for the Social Sciences                                                      |
| STI    | Sexually transmitted infection                                                                   |
| TFMPP  | 3-trifluoromethylphenylpiperazine                                                                |
| WHO    | World Health Organization                                                                        |

## GLOSSARY OF TERMS

|                    |                                                                                                                                                                                                                                                                                                                                                                                                                           |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Binge              | Use over 48 hours without sleep                                                                                                                                                                                                                                                                                                                                                                                           |
| Eightball          | 3.5 grams                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Halfweight         | 0.5 gram                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Illicit            | Illicit refers to pharmaceuticals obtained from a prescription in someone else's name, e.g. through buying them from a dealer or obtaining them from a friend or partner                                                                                                                                                                                                                                                  |
| Indicator data     | Sources of secondary data used in the EDRS (see <i>Method</i> section for further details)                                                                                                                                                                                                                                                                                                                                |
| Key expert(s)      | Also referred to as KE; persons participating in the Key Expert Survey component of the EDRS (see <i>Method</i> section for further details)                                                                                                                                                                                                                                                                              |
| Licit              | Licit refers to pharmaceuticals (e.g. benzodiazepines, antidepressants and opioids such as methadone, buprenorphine, morphine and oxycodone) obtained by a prescription in the user's name. This definition does not take account of 'doctor shopping' practices; however, it differentiates between prescriptions for self as opposed to pharmaceuticals bought on the street or those prescribed to a friend or partner |
| 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: injecting; smoking; snorting shelving/shafting; and/or swallowing                                                                                                                                                                                                                                   |
| Opiates            | Opiates are derived directly from the opium poppy by departing and purifying the various chemicals in the poppy                                                                                                                                                                                                                                                                                                           |
| Opioids            | Opioids include all opiates but also include chemicals that have been synthesised in some way; e.g. heroin is an opioid but not an opiate, morphine is both an opiate and opioid                                                                                                                                                                                                                                          |
| Point              | 0.1 gram although may also be used as a term referring to an amount for one injection                                                                                                                                                                                                                                                                                                                                     |
| Recent injection   | Injection (typically intravenous) in the six months preceding interview                                                                                                                                                                                                                                                                                                                                                   |
| Recent use         | Use in the six months preceding interview via one or more of the following routes of administration: injecting; smoking; snorting; and/or swallowing                                                                                                                                                                                                                                                                      |
| Shelving/shafting  | Use via insertion into vagina (shelving) or the rectum (shafting)                                                                                                                                                                                                                                                                                                                                                         |
| Use                | Use via one or more of the following routes of administration: injecting; smoking; snorting; shelving/shafting; and/or swallowing                                                                                                                                                                                                                                                                                         |

## Guide to days of use/injection

|                  |                                                |
|------------------|------------------------------------------------|
| 180 days         | Daily use/injection* over preceding six months |
| 90 days          | Use/injection* every second day                |
| 24 days          | Weekly use/injection*                          |
| 12 days          | Fortnightly use/injection*                     |
| 6 days           | Monthly use/injection*                         |
| * As appropriate |                                                |

## EXECUTIVE SUMMARY

This report presents the findings from the fifteenth year in which data has been collected in South Australia (SA). The Ecstasy and Related Drugs Reporting System (EDRS; formerly the Party Drugs Initiative, or PDI), monitors the price, purity and availability of 'ecstasy' (MDMA) and other drugs such as methamphetamine, cocaine, gamma-hydroxybutyrate (GHB), *d*-lysergic acid (LSD), 3,4-methylenedioxyamphetamine (MDA) and ketamine. It also examines the demographic characteristics and patterns of drug use among regular psychostimulant users (RPU), the prevalence of risk-taking and harms related to drug use, as well as the level of criminal involvement among this group. It utilises data from three sources: (a) surveys with regular psychostimulant users (RPU); (b) surveys with key experts (KE) who have contact with RPU through the nature of their work; and (c) the analysis of existing data sources that contain information on ecstasy and related drugs (ERD). The EDRS surveys are not representative of psychostimulant users in the general population. The RPU are a sentinel group that provides information on patterns of drug use and market trends.

The findings from each year not only provide a snapshot of the ERD market in Australia, but in total they help to provide an evidence base for policy decisions; for helping inform harm reduction messages; and to provide directions for further investigation when issues of concern are detected. Continued monitoring of the ERD markets in Australia 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.

Drug trends in this publication primarily represent trends in Adelaide, where new drug trends are likely to emerge. Patterns of drug use may vary among other groups of RPU in Adelaide and in regional areas.

### Demographic characteristics of regular psychostimulant users

One hundred participants were recruited to the 2014 sample. As in previous years, the RPU interviewed were young, with a median age of 21. Three-fifths (62%) of the participants were male. Fifteen percent of the sample reported being in full-time employment with a mean income of \$491 per week. Most participants were well educated; about one-third (31%) of the sample had completed some kind of post school qualification, and about half (46%) were current students. The large majority (80%) of the sample identified as heterosexual and 1% were currently undergoing treatment for their drug use. The 2014 sample were generally similar to participants in 2013; however, there was a significant increase in the proportion of participants who hadn't completed any tertiary education, and a subsequent decrease in those who had completed a university or college degree.

### Patterns of drug use among participants

Cannabis emerged as the main drug of choice nominated by participants, closely followed by ecstasy and then alcohol (compared to 2013, in which ecstasy was the most popular drug of choice). Aside from ecstasy, alcohol was the most commonly used drug among RPU, followed by cannabis and tobacco. As in 2013, polydrug use was common among this sample, with participants having tried a median of nine different drugs in their lifetime, and six within the preceding six months. In 2014, there were significant decreases in the lifetime use of nitrous oxide and benzodiazepines. There were no significant changes in the past six month use of any of the drug types; however, there were non-significant increases in the recent use of tobacco, cocaine and LSD.

There was a non-significant decline in the proportion of participants who reported recent bingeing on ecstasy or other related drugs in 2014. Amongst those who had binged for over 48 hours, alcohol emerged as the drug most commonly used in a binge session. There was a significant decline in the use of ecstasy in a binge session, whilst there were non-significant declines in the use of tobacco, cannabis and crystal methamphetamine.

Injecting drug use remained low in 2014, with only four participants reporting that they injected any drug within the preceding six months.

## Ecstasy

The parameters of ecstasy use remained fairly consistent in 2014, with the reported median age of first use, 'average' or 'most' amount used in a typical session, and median days of use in a six month period all remaining stable from 2013. The proportion of participants who reported using more than one pill in a typical session also remained stable in 2014; however, there was a significant decline in the proportion of RPU who had consumed ecstasy in a binge session (19% in 2014 vs. 33% in 2013;  $p < 0.05$ ). Swallowing was the main route of administration (ROA) for ecstasy pills, capsules and crystals, whilst snorting was the main ROA for ecstasy powder. There was a significant increase in the proportion of RPU who had snorted pills in their lifetime, and an increase in RPU who had swallowed MDMA crystals in the six months preceding interview. Over two-fifths (45%) of the sample reported that the last time they consumed ecstasy they had been at a nightclub.

The proportion of participants who reported using other drugs 'with ecstasy' remained stable in 2014, as did the use of other drugs to 'come down' from ecstasy. Cannabis was the most common drug used to come down from ecstasy, whilst alcohol was the most common drug used in combination with ecstasy.

However, despite the parameters of ecstasy use remaining relatively stable in 2014, there does appear to have been some diversification in the ecstasy market. That is, although the majority of RPU continued to use ecstasy pills (96%), there were non-significant increases in the recent use of ecstasy capsules (37% in 2014 vs. 26% in 2013) and MDMA crystal (36% in 2014 vs. 25% in 2013). In addition, almost one-in-five participants (18%) reported the recent use of ecstasy powder, which was stable from 2013 (16%). In order to accurately capture this diversifying market, in 2014 participants were asked to report on the price, purity and availability (PPA) of ecstasy 'pills, powder and caps' separately to MDMA crystals.

The reported price of ecstasy remained stable in 2014, at \$20 for a pill. This was confirmed by three-quarters of the sample who reported that price had remained stable over the preceding six months. The median price of MDMA crystal was \$200 for a gram. Availability continued to be considered 'easy' or 'very easy' by participants. The largest portion of RPU reported that current purity of ecstasy (pills, powder and caps) was medium; whilst the purity of MDMA crystal was perceived as high. Perceptions regarding changes in the purity of ecstasy over the past six months were mixed; those answering for MDMA crystal reported that purity had remained stable over the six months preceding interview, whilst those answering for pills, powder and caps largely reported that purity had fluctuated over the preceding six months. This is in contrast to data from the Australian Crime Commission (ACC), which reported that the median purity of South Australian Police (SAPOL) seizures of phenethylamines remained low and stable in 2012/13 at 14.3% (compared to 15.7% in 2011/12).

Ecstasy was generally purchased for both self and others (70%), and this increased significantly from 2013 (55%;  $p<0.05$ ). Ecstasy was purchased from a median of three people in the six months prior to interview. The majority of participants purchased ecstasy one to 12 times in that period, with 11% purchasing ecstasy between 13–24 times in that period. RPU obtained a median of seven pills on the last occasion of purchase, and mainly purchased ecstasy from friends.

### **Methamphetamine**

In 2014, the proportions of the participant sample reporting recent use of base methamphetamine remained stable, whilst there were non-significant declines in the recent use of powder and crystal methamphetamine. The frequency of use within the preceding six months remained relatively stable, and low (range=3–6 days) for all three forms of methamphetamine. In the six months prior to interview, smoking emerged as the preferred ROA for both base and crystal methamphetamine, whilst snorting was the preferred method for administering methamphetamine powder.

The reported last median price of a point of powder, base and crystal methamphetamine all remained relatively stable in 2014, at \$50, \$100 and \$90 respectively. The majority of participants reported that the price of all three forms of methamphetamine had remained stable in the six months preceding interview.

Reports regarding the purity of methamphetamine were mixed, with crystal methamphetamine appearing to have the highest purity according to participant reports. In addition, seizures analysed by SAPOL revealed that the median purity of methamphetamine increased slightly, from 43.3% in 2011/12 to 54.6% in 2012/13. All forms of methamphetamine were considered easy to very easy to obtain recently, and participants reported that this had remained stable within the last six months.

Overall, participants mostly reported obtaining all three forms of methamphetamine from friends.

Of the illicit drugs, most key experts (KE) considered methamphetamine to be an issue of particular concern at the moment. This was attributed to its high prevalence and the effects (health, mental and social) that it has on both the individual and their family/friends.

### **Cocaine**

In 2014, there were non-significant increases in lifetime and recent use of cocaine, to 68% and 45% respectively. Among those who had used cocaine in the six months preceding interview, frequency of use remained low and stable at a median of two days.

The median price paid for a gram of cocaine decreased slightly to \$300, although the majority of those able to answer perceived that the price had remained stable in the six months preceding interview. Perceptions regarding the purity of cocaine were mixed, with similar proportions of RPU reporting that current purity was low, medium or high. Interestingly, seizures analysed by SAPOL revealed that the median purity of cocaine in 2012/13 had almost doubled compared to 2011/12. The current availability of cocaine was largely perceived as 'easy', with the majority of participants reporting that this had remained stable in the six months preceding interview.

### **LSD**

One-third (35%) of the participant sample in 2014 reported recent use of LSD, which was a non-significant increase from 2013 (25%). Frequency of LSD use was stable and remained consistently low. The amount of LSD used in a typical and heavy

session remained stable, and the majority of participants reported being at a private venue (own/friend's home) at last time of intoxication.

The median price of LSD remained stable in 2014, at \$15 for a tab. The purity of LSD was perceived as high, and participants largely believed this had remained stable over the past six months. The availability of LSD remained stable in 2014, with almost equal proportions reporting that LSD was easy or difficult to obtain.

A number of KE noted that they had seen an increase in the use of LSD amongst their clientele, although it was acknowledged that it is still not a widely used drug.

### **Cannabis**

The prevalence of cannabis use remained exceptionally high in 2014, with 98% of the sample reporting lifetime use and 87% reporting use within the preceding six months. The frequency of recent cannabis use by participants remained stable in 2014, at a median of 48 days within a six month period. Participants reported spending most of their time, whilst intoxicated, at their own home or at a friend's home.

The reported price for a bag of hydro/bush remained stable in 2014 (\$25), as did the availability (with participants reporting that cannabis was easy or very easy to obtain). The purity of hydro was reported as high and bush as medium, with the purity of both types of cannabis perceived as stable in the previous six months.

### **New psychoactive substances**

For the fifth year running, participants in 2014 were asked about their use of a range of new psychoactive substances (NPS). Those most recently used were N-methoxybenzyl (NBOMe), 4-bromo-2, 5-dimethoxyphenethylamine (2CB) and dimethyltryptamine (DMT). Compared to the 2013 data, there were no significant changes in either lifetime or recent use of NPS.

Interestingly, few KE were able to comment on any of the new psychoactive substances listed above; rather, the primary comments related to the presence of NPS in pills sold as ecstasy. It was reported by one KE that the most common drugs detected in seized 'ecstasy' pills over the preceding 12 months (excluding MDMA) were 25I-NBOMe and 25C-NBOMe.

It is also interesting to note that, despite the resurgence of the ecstasy market over the past few years, two-fifths (40%) of the sample still reported the use of 'any' NPS in the six months preceding interview. This suggests that participants will continue to experiment with a range of different drugs, regardless of what is happening in the ecstasy market.

### **Other drugs**

#### ***Ketamine***

Over a quarter (27%) of the sample reported lifetime use of ketamine and 4% reported use in the six months preceding interview (both stable from 2013).

### ***GHB***

Eleven percent of RPU reported lifetime use of GHB and 3% reported use in the six months preceding interview (both stable from 2013)

### ***MDA***

Ten percent of RPU reported lifetime use of MDA and 3% reported use in the six months preceding interview, both of which remained stable from 2013.

### ***Mushrooms***

Twenty-two percent of participants reported recent use of 'magic mushrooms', although frequency remained low at a median of two days in the preceding six months.

### ***Alcohol***

In 2014, the entire participant sample (100%) reported recent use of alcohol; frequency remained stable at a median of 48 days in a six month period (approximately twice a week). A number of KE considered alcohol to be a particularly problematic drug due to its widespread prevalence, availability and social acceptability.

### ***Tobacco***

Ninety-two percent of RPU reported lifetime use of tobacco and 82% reported use in the six months preceding interview, both of which represent non-significant increases from 2013 (84% and 75% respectively). Inversely, there was a non-significant decline in the proportion of recent tobacco users who reported daily use (49% in 2014 versus 64% in 2013;  $p>0.05$ ), although this continues to greatly exceed the daily smoking prevalence rate in the general South Australian population aged 14 years and over.

### ***E-cigarettes***

Almost two-thirds (64%) of RPU reported they had used electronic cigarettes within their lifetime. Fifty-four percent of the sample reported that they had recently used these substances, and they had done so on a median of four days (range=1–180).

### ***Inhalants***

Recent use of nitrous oxide remained stable in 2014, with 8% of the sample reporting use within the preceding six months. The prevalence of recent amyl nitrate use also remained stable at 7% of the sample. Frequency of use remained low for both inhalants.

### ***Pharmaceutical drugs***

There was a non-significant decline in the lifetime use of illicit benzodiazepines, whilst recent use remained relatively stable. The lifetime and recent use of other unprescribed medications (i.e. antidepressants, pharmaceutical stimulants, OTC codeine, OTC stimulants, antipsychotics, OST medications and other opioids) remained stable in 2014.

### ***Steroids***

Six percent of RPU reported lifetime use of steroids, and three participants reported that they had used steroids on a median of 45 days (range=24–180) within the preceding six months.

### **Health-related issues**

The prevalence of recent (past 12 month) stimulant and depressant overdose remained stable in 2014. Overall, 41% of RPU reported that they had overdosed on either a stimulant or depressant drug in the 12 months preceding interview. When analysing this data it is important to keep in mind that this is self-report data, with overdose defined as symptoms that occurred “outside your normal drug experience, or where professional assistance would have been helpful”.

Eight participants reported having accessed professional help for a drug and alcohol related issue in the six months prior to interview, and an additional nine participants reported that they had thought about seeking help for their drug and alcohol use. Eighty-eight percent of the sample reported that they had utilised a health service (for any reason) in the preceding six months and this was most commonly a general practitioner.

The proportion of clients attending Drug and Alcohol Services South Australia (DASSA) treatment services, with ecstasy as the primary drug of concern, remained stable in 2014 and accounted for a very small proportion of total attendances. Alcohol dominated as the primary drug of concern for the largest proportion of total clients to DASSA treatment services, followed by amphetamines, cannabis, opioid analgesics and heroin.

Telephone calls made to the SA Alcohol and Drug Information Service (ADIS) remained relatively stable for alcohol, ecstasy, cannabis and methamphetamine, whilst decreasing slightly for cocaine.

In 2014, 22% of the participants were assessed to be at high to very high risk of psychological distress as measured by the Kessler Psychological Distress Scale (K10), in the four-weeks prior to the survey.

### **Risk behaviour**

#### ***Injecting risk behaviour***

Five percent of the sample reported that they had ever injected any drug. Four participants reported recently injecting any drug in 2014, most commonly methamphetamine and steroids. No participants reported sharing needles or other injecting equipment in the six months preceding interview.

#### ***Sexual risk behaviour***

Evidence of risky sexual behaviour was again apparent among the participant sample in 2014. Of the participants who reported having had penetrative sex with a casual partner in the last six months, about half of the sample reported that they did not use protection during their last sexual encounter, regardless of whether they were sober or intoxicated. In addition, the vast majority of those who reported recent penetrative sex had done so whilst under the influence of drugs – most commonly alcohol, followed by ecstasy and cannabis. Thirty-nine participants had undergone a sexual health check-up in the preceding year, and of these five had been diagnosed with a sexually transmitted infection (STI).

### ***Alcohol risk behaviour***

The Alcohol Use Disorders Identification Test (AUDIT) is a brief screening tool which is used to identify individuals with alcohol problems. Using this test, participants scored a mean of 14.7. Eighty-nine percent of the sample scored eight or more; these are levels at which alcohol intake may be considered hazardous.

### ***Stimulant dependence***

Over one-quarter (27%) of the sample obtained a score of zero on the ecstasy Severity of Dependence Scale (SDS), and 25% obtained a score of 1 on the scale. This indicates that over half of the sample reported no or few symptoms of dependence in relation to ecstasy use. RPU scored a median of 3.5 on the methamphetamine SDS.

### ***Law enforcement-related trends***

The prevalence of past month criminal activity among RPU increased (albeit not significantly) in 2014. Drug dealing continued to be the most common offence which had been committed, although there was a significant increase in the proportion of REU who had committed a property crime in the month preceding interview. Fraud and violent crime remained low among RPU. The number of participants reporting past year arrest remained low and stable.

### **Special topics of interest**

#### ***Dark web marketplaces***

In 2014, participants were asked about their online purchasing of drugs. Over half (55%) of RPU reported having friends that had purchased a drug online in their lifetime; however, the proportion of participants who had bought drugs online themselves was considerably lower. Eighteen percent of RPU reported that they had ever purchased a drug online, and 15% reported that they had purchased a drug online in the year preceding interview. Participants most commonly reported purchasing drugs from the Silk Road, from both Australian and international retailers, and they largely reported doing so because the drugs were cheaper and of a higher quality. The most common drugs purchased online were ecstasy, NBOMe, LSD and cannabis.

#### ***NPS health policy***

Knowledge regarding the legality of 2CB, 2CI, DMT and mephedrone was mixed. Although few participants believed that any of these substances were legal, large portions of the sample reported that they were unsure of their legal status. The overwhelming majority of RPU reported that making all NPS illegal would not change their behaviour, either in regards to initiation or continuation of use.

Amongst those who had used an NPS in their lifetime, the most common NPS last used by participants were NBOMe, DMT and 2C-x. The most motivating factors for using an NPS were: high level of purity compared to traditional illegal stimulants, good value for money and the perception that it would produce a better high than traditional illegal stimulants.

### **Conclusions**

The results reported here describe trends in the use of ecstasy and related drugs (ERD) in 2014 in Adelaide, South Australia, and provide comparisons with the findings of the 2013 study. Many characteristics of ERD in the current study were comparable to previous years and remained stable. Indeed, there were no significant changes in the recent use of any licit or illicit drugs amongst RPU in Adelaide.

Rather, the main findings from the 2014 EDRS seem to be centred on the diversification of the ecstasy market and the ongoing development of the NPS market. More specifically, although pills continue to be the most dominant form of ecstasy used by RPU, both ecstasy capsules and MDMA crystal appear to be becoming increasingly popular. In addition, the NPS market has established itself as an ongoing and significant part of Australia's recreational drug scene, with 40% of RPU reporting that they had used some form of NPS in the six months preceding interview. It does, however, remain a highly dynamic market, with the popularity of specific NPS changing considerably over time. In 2014, NBOMe, 2CB and DMT were the commonly used NPS amongst RPU in Adelaide.

## Implications

The findings from the 2014 SA EDRS have policy and research implications, and several recommendations are outlined below.

- There remain concerns about the contents of 'ecstasy' pills, particularly in the context of the growing NPS market. Indeed, a number of suspected 'ecstasy' overdoses in Australia highlight the importance of promoting harm reduction messages amongst RPU. For example, avoid mixing pills with other substances; keep hydrated (but don't consume more than one pint/two cups per hour); look after your friends and seek help if needed. At a broader, policy level, it is recommended that pill-testing kits or booths be trialled at venues where pills are known to be consumed.
- Although pills remain the dominant form of ecstasy being used by RPU, there has been a diversification in the use of other forms of ecstasy. In particular, ecstasy capsules and MDMA crystals appear to be becoming increasingly popular amongst RPU. The PPA of MDMA crystals was found to be quite different to that of pills, powder and capsules and as such it is important that MDMA crystal continues to be monitored separately to the other forms of ecstasy.
- The use of new psychoactive substances remains popular among RPU. Given the unknown health and behavioural consequences of using such drugs, it is essential that we continue to monitor this market and assess the associated risks.
- Alcohol and tobacco use remain highly prevalent amongst this sample, with the majority of RPU consuming alcohol at levels that may be considered hazardous. In regards to tobacco, there were non-significant increases in both lifetime and recent use, although there was an inverse (non-significant) decline in the frequency of tobacco use. This suggests that although current public health campaigns and policies have failed to reduce the uptake of smoking amongst RPU, they may have had some success in reducing consumption amongst existing consumers. However, there remains a clear need to focus interventions targeting tobacco use amongst this population.
- Polydrug use remains common amongst RPU, with the large majority of participants reporting that they used other drugs in combination with ecstasy. Simultaneous consumption of different drugs can have harmful and unpredictable consequences, and it is therefore important that there is continued education regarding the harms associated with such behaviour.
- Two-fifths of the sample reported that they had overdosed on either a stimulant or depressant drug in the 12 months preceding interview. This is a serious public health concern, and it is essential that education and harm reduction be developed to address this issue.
- Increased promotion of 'safe sex' practices, and sexual health testing, is needed within this population of RPU, especially regarding casual sexual experiences.

# 1 INTRODUCTION

The EDRS evolved from the Illicit Drug Reporting System (IDRS), an ongoing annual project which has been conducted in South Australia (SA) since 1997 and in all states and territories of Australia since 2000. To date, the purpose of the IDRS has been to provide a coordinated approach to monitoring the use of illicit drugs, in particular heroin, methamphetamine, cannabis and cocaine. It is intended to serve as an early warning system, identifying emerging trends of local and national concern in various illicit drug markets. The study is designed to be sensitive to such trends, providing data in a timely fashion, rather than to describe phenomena in detail, such that it will provide direction for more detailed data collection on specific issues.

In June 2000, the National Drug Law Enforcement Research Fund (NDLERF) funded a two-year trial in New South Wales and Queensland on the feasibility of monitoring emerging trends in the ecstasy and related drugs (ERD) market using the extant IDRS methodology. In addition, Drug and Alcohol Services Council (DASC), now known as Drug and Alcohol Services of South Australia (DASSA), agreed to provide funding for two years to allow the trial to proceed in this state. This component of the IDRS was known as the Party Drugs Module and the term 'party drug' was considered to include any drug that was routinely used in the context of entertainment venues such as nightclubs or dance parties, and by a population of users different to those surveyed by the main IDRS. 'Party drugs' included drugs such as 'ecstasy' (3, 4-methylenedioxymethamphetamine, MDMA), methamphetamine, LSD, ketamine, 3, 4-methylenedioxyamphetamine (MDA), and gamma-hydroxybutyrate (GHB).

In 2002, the National Drug and Alcohol Research Centre (NDARC) provided funding for the Party Drugs Module to be conducted in NSW, as did DASSA in South Australia. In 2003, NDLERF provided funding for it to be conducted in all jurisdictions across Australia, under the title of the Party Drugs Initiative (PDI), representing the first year that data for this project had been collected nationally. Funding was again provided by NDLERF in 2004. In 2005, the Australian Government Department of Health (AGDH) and the Ministerial Council on Drug Strategy provided funding, as a project under the cost shared funding arrangement. In 2006, the AGDH provided funding. In 2006, the PDI was renamed and is now known as the Ecstasy and Related Drugs Reporting System (EDRS).

## 1.1 Study aims

The specific aims of the 2014 South Australian EDRS were to:

- describe the characteristics of a sample of psychostimulant users surveyed in Adelaide in 2014;
- examine the patterns of ecstasy and other drug use among this sample;
- document the current price, purity and availability of ecstasy and related drugs in Adelaide;
- examine participants' perception of the incidence and nature of ecstasy and other drug-related harms, including physical, psychological, occupational, social and legal harms;
- identify emerging trends in the ecstasy and related drug markets that require further investigation; and
- where possible, compare findings of the 2013 EDRS.

## 2 METHOD

Methodology for this study was conducted as per the methodology trialled in the feasibility study (Breen, Topp & Longo, 2002). Data were triangulated from three sources, as follows:

- face-to-face interviews with current regular psychostimulant users (RPU) living in the Adelaide metropolitan area;
- telephone interviews with key experts (KE) who work professionally or as volunteers in the drug and alcohol area or a related field, and have knowledge of, or regular contact with, ecstasy and related drug users; and
- an examination of existing, current indicator data relating to drug use and drug-related issues.

### 2.1 Survey of regular psychostimulant users (RPU)

From 2003–2012, the sentinel population chosen to monitor trends in ERD markets has consisted of people who engaged in the regular use of the drug sold as ‘ecstasy’. The decision that regular ecstasy use should define the sentinel population of ERD users was underpinned by a couple of important factors. Firstly, ecstasy has historically been the most widely used of the group of drugs referred to as ‘party drugs’ (White, Breen & Degenhardt, 2003), and is currently the most commonly used illicit drug after cannabis (Australian Institute of Health and Welfare, 2011). Secondly, a growing market for ecstasy, i.e. tablets sold purporting to contain MDMA, has existed in Australia for more than a decade. In contrast, other drugs that fall into the class of ERD have either declined in popularity since the appearance of ecstasy in this country (e.g. LSD), fluctuate widely in availability (e.g. MDA), or are relatively new in the market and are not as widely used as ecstasy (e.g. ketamine and GHB).

However, it has become apparent over the past couple of years that the ecstasy market and the regularity of its consumption may be changing – which, in turn, has led to a subsequent expansion of the NPS market (see section 4.8 for more information). In response to such changes, the eligibility criterion was expanded in 2013 to include the use of other illicit psychostimulants including: MDA, methamphetamine, cocaine, ketamine, GHB, LSD, mephedrone or other NPS.

In 2014, a total of 100 RPU were interviewed from March to June. Despite the expansion of the eligibility criteria, there were only ten participants who had not used ecstasy regularly in accordance with REU criteria. That is, the 2014 EDRS results still comprise a large amount of data from REU.

#### 2.1.1 Recruitment

Participants were recruited through a purposive sampling strategy (Kerlinger, 1986), which included advertisements in three entertainment-focused street magazines, one sports-based magazine and on university noticeboards. In addition, advertisements were posted on various websites (including facebook) and verbal advertisements were broadcast on one dance music based radio station. Some participants were also recruited using ‘snowball’ procedures (Biernacki & Waldorf, 1981). ‘Snowballing’ is a means of sampling ‘hidden’ populations that relies on peer referral and is widely used to access illicit drug users both in Australian studies (e.g. Boys, Lenton & Norcross, 1997; Ovendon & Loxley, 1996; Solowij, Hall & Lee, 1992) and international studies (e.g. Dalgarno & Shewan, 1996; Forsyth, 1996; Peters, Davies & Richardson, 1997). On completion of the EDRS survey, participants were

asked to pass on information regarding the study to any friends or associates they believed may have been eligible to participate in the study.

### **2.1.2 Procedure**

Participants contacted the research officer either by telephone or email (via a web-site link) and were screened for eligibility. To meet entry criteria, participants had to be at least 16 years of age (due to ethical constraints), they must have used ecstasy or other illicit psychoactive stimulants (i.e. MDA, methamphetamine, cocaine, ketamine, GHB, LSD, mephedrone or other NPS) at least six times over the last six months, and have been a resident (not incarcerated) of the Adelaide metropolitan region for at least the last 12 months.

Participants were assured that all information they provided was strictly confidential and anonymous, and that the study would involve a face-to-face interview that would take between 30 and 60 minutes to complete. All participants were volunteers who were reimbursed \$40 for their time and travel expenses. Interviews took place in varied locations convenient to the participants. Trained research interviewers with experience and understanding of how to administer the survey questionnaire conducted all interviews. The nature and purpose of the study was explained to participants before informed consent to participate was obtained, according to ethical guidelines.

### **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), which incorporated items from a number of previous NDARC studies of users of ecstasy (Solowij, Hall & Lee, 1992) and powder amphetamine/methamphetamine (Darke et al., 1994; Hando & Hall, 1993; Hando, Topp & Hall, 1997). The interview focused primarily on the preceding six months, and assessed:

- demographic characteristics;
- patterns of ERD use, including frequency and quantity of use and routes of administration;
- drug market characteristics: the price; purity; and availability of different ERD;
- risk behaviours (such as injecting, sexual behaviour);
- help-seeking behaviour;
- mental and physical health, personal health and wellbeing;
- self-reported criminal activity;
- ecstasy-related problems, including relationship, legal and occupational problems;
- general trends in ERD markets, such as new drug types and new drug users; and
- areas of special interest including online purchasing, health issues associated with NPS use, and knowledge of the legal status of NPS.

### **2.1.4 Data analysis**

Statistical analyses (descriptive and inferential) were performed using the Statistical Package for the Social Sciences (SPSS) for Windows, Version 22.0. Continuous, normally distributed variables were analysed using *t*-tests and means reported. Where continuous variables were skewed, medians were reported and the Mann-Whitney *U*-test, a non-parametric analogue of the *t*-test (Siegel & Castellan, 1988), was employed. Confidence intervals (CI) were calculated using an Excel spreadsheet available at <http://www.cebm.net/index.aspx?o=1023> (Tandberg). This calculation tool was an implementation of the optimal methods identified by Newcombe (1998).

## 2.2 Survey of key experts (KE)

The eligibility criterion for KE participation in the EDRS was regular contact, in the course of employment or otherwise, with a range of ecstasy users throughout the last six months. Specifically, average weekly contact with at least ten ecstasy users over the time period was required, unless individuals were considered appropriate due to their level of expertise in the field (e.g. police and intelligence analysts).

The interview schedule was a semi-structured instrument that included sections on drug use patterns, drug availability, criminal behaviour, health issues and police activity. The majority of interviews took approximately 30 minutes to conduct. Notes were taken during the interview and the responses were analysed and sorted for recurring themes. Interviews were conducted via telephone in October 2014. KE were remunerated with a small gift (e.g. box of chocolates) for their time.

There were ten KE from various metropolitan regions of Adelaide. The majority of KE worked in the health sector, including in drug diversion, community drug and alcohol work, drug treatment services, mental health services, health promotion/information and emergency treatment. There were three KE from the law enforcement sector.

In the following report, the information obtained from the KE will be presented in a qualitative fashion, by identifying the common themes and discussing them. Any major differences found between the KE reports will also be reviewed. No personal information was collected on any of the ecstasy or other drug users that KE had been in contact with.

## 2.3 Other indicators

To complement and validate data collected from the ecstasy user and KE surveys, a range of secondary data sources were utilised, including population surveys and other health and law enforcement data.

Data sources included in the report were:

- telephone advisory data provided by the Alcohol and Drug Information Service (ADIS) of South Australia;
- treatment services data from Drug and Alcohol Services South Australia (DASSA);
- data from the National Campaign Against Drug Abuse Household Survey of 1991 and 1993, and the National Drug Strategy Household Survey (NDSHS) of 1995, 1998, 2001, 2004, 2007, 2010 and 2013 (reports published by the Australian Institute of Health and Welfare);
- purity of drug seizures made by South Australian Police (SAPOL) and the Australian Federal Police (AFP), provided by the Australian Crime Commission (ACC);
- data on consumer and provider arrests by drug type provided by the ACC;
- drug-related admissions to the Emergency Department of the Royal Adelaide Hospital (RAH), provided by the Emergency Department (ED);
- drug-related hospital admissions data (state and national) provided by the Australian Institute of Health and Welfare (AIHW).

## 3 DEMOGRAPHICS

### Key Findings

- A total of 100 participants were interviewed for the EDRS survey in 2014.
- Participants were aged in their early-20s (median age of 21 years), predominantly male (62%), with the majority identifying as heterosexual (80%).
- The RPU interviewed were well educated: just under one-third had gained post-secondary qualifications, while 46% were current students.
- Fifteen percent of the sample were currently in full-time employment, with a mean income of \$491 per week. The majority were renting/owned (53%) or living in the parental/family home (45%).
- Demographic characteristics were largely unchanged from 2013, with the only significant changes being in relation to tertiary education. More specifically, there was an increase in the proportion of participants who hadn't completed any tertiary education, and a subsequent decrease in those who had completed a university degree.

### 3.1 Overview of the RPU participant sample

#### 3.1.1 Demographic characteristics of the RPU sample

In the 2014 EDRS, 100 participants were interviewed in South Australia. Ten percent of the EDRS sample had participated in previous years; 1% in 2007, 1% in 2008, 1% in 2009, 1% in 2010, 5% in 2011, 3% in 2012 and 6% in 2013. No participants had participated in a previous SA IDRS survey of people who inject drugs.

In 2014, three-fifths (62%) of the sample interviewed were male. The mean age of the sample was 22 years (SD=4.9, range=17–53) with a median age of 21 years. The majority of participants reported their sexual identity as heterosexual (80%), and nominated English as their main language (97%). One participant was of Aboriginal and/or Torres Strait Island (A&TSI) descent.

Three-fifths (59%) of the sample reported that they were of single status, one-third (32%) had a partner and 8% reported to be married or living in a de facto relationship. Over half (53%) lived in their own (owned or rented) accommodation and 45% lived in their parents' or family's home.

The median number of years of school education completed by the sample was 12 (range=9–12), with over three-quarters (79%) of participants reporting that they had completed year 12. Under a third (31%) had completed courses after school, with 19% having completed a university degree and 12% a trade/technical qualification. Fifteen percent of participants were employed on a full-time basis, a quarter (27%) were employed on a part-time/casual basis, just under half were currently students (10% full-time, 36% employed & studying) and one-tenth (10%) were currently unemployed. The mean weekly income was \$491 (range=\$4–1600).

Table 1, below, presents key demographic characteristics across time. The demographic characteristics of regular psychostimulant users recruited for the EDRS have remained relatively stable between 2010 and 2014. Demographic comparisons between the 2013 sample and 2014 sample showed a significant increase in participants who hadn't completed any tertiary education ( $p<0.05$ ; 95% CI: -0.31 – -0.04), and a subsequent decrease in those who had completed a university degree ( $p<0.05$ ; 95% CI: 0.01–0.23). It is, however, important to note that there was a non-significant increase in participants who were current students (33% in 2012 versus 46% in 2014;  $p>0.05$ ).

**Table 1: Demographic characteristics of RPU sample, 2010–2014**

| <b>Characteristic</b>                           | <b>2010<br/>(N=92)</b> | <b>2011<br/>(N=76)</b> | <b>2012<br/>(N=92)</b> | <b>2013<br/>(N=100)</b> | <b>2014<br/>(N=100)</b> |
|-------------------------------------------------|------------------------|------------------------|------------------------|-------------------------|-------------------------|
| <b>Age</b> (median in years)                    | 24                     | 21                     | 22                     | 21                      | <b>21</b>               |
| (range)                                         | (18–51)                | (17–45)                | (17–48)                | (16–44)                 | <b>(17–53)</b>          |
| <b>Sex</b> (% male)                             | 62                     | 68                     | 73                     | 75                      | <b>62</b>               |
| <b>Sexual Identity</b> (%)                      |                        |                        |                        |                         |                         |
| Heterosexual                                    | 87                     | 99                     | 90                     | 85                      | <b>80</b>               |
| Gay male                                        | 2                      | -                      | 3                      | 1                       | <b>2</b>                |
| Lesbian                                         | 3                      | -                      | 0                      | 6                       | <b>9</b>                |
| Bisexual                                        | 8                      | 1                      | 7                      | 7                       | <b>7</b>                |
| Other                                           | -                      | -                      | 0                      | 1                       | <b>2</b>                |
| <b>English main language spoken at home</b> (%) | 99                     | 97                     | 98                     | 98                      | <b>97</b>               |
| <b>A&amp;TSI</b> (%)                            | 1                      | 1                      | 1                      | 2                       | <b>1</b>                |
| <b>Employment</b> (%)                           |                        |                        |                        |                         |                         |
| Not employed                                    | 20                     | 22                     | 13                     | 13                      | <b>10</b>               |
| Full-time                                       | 30                     | 21                     | 30                     | 23                      | <b>15</b>               |
| Part-time/casual                                | 34                     | 36                     | 21                     | 28                      | <b>27</b>               |
| Full-time student                               | 10                     | 8                      | 9                      | 6                       | <b>10</b>               |
| Part-time student                               | 2                      | -                      | 3                      | 1                       | <b>0</b>                |
| Both studying & employed <sup>#</sup>           | 1                      | 13                     | 23                     | 26                      | <b>36</b>               |
| Home duties                                     | 3                      | -                      | 0                      | 0                       | <b>0</b>                |
| Other                                           | -                      | -                      | 1                      | 3                       | <b>2</b>                |
| <b>School education*</b> (median in years)      | 12                     | 12                     | 12                     | 12                      | <b>12</b>               |
| (range)                                         | (7–13)                 | (9–12)                 | (8–12)                 | (10–12)                 | <b>(9–12)</b>           |
| <b>Tertiary education</b> (%)                   |                        |                        |                        |                         |                         |
| None                                            | 47                     | 45                     | 53                     | 51                      | <b>69*</b>              |
| Trade/Technical                                 | 30                     | 28                     | 35                     | 25                      | <b>19</b>               |
| University/College                              | 23                     | 28                     | 12                     | 24                      | <b>12*</b>              |
| <b>Prison history</b> (%)                       | 6                      | Not asked              | 7                      | 3                       | <b>4</b>                |
| <b>Current drug treatment</b> (%)               | 0                      | 4                      | 3                      | 2                       | <b>1</b>                |

Source: EDRS participant interviews

\* $p<0.05$

## 4 CONSUMPTION PATTERN RESULTS

### Key Findings

- In 2014, cannabis overtook ecstasy to emerge as the primary drug of choice amongst RPU.
- There were significant decreases in the lifetime use of nitrous oxide and benzodiazepines, whilst there were non-significant increases in the recent use of tobacco, cocaine and LSD.
- Polydrug use remained common, with participants reporting that they had used an average of six different drugs in the six months preceding interview.
- Five participants reported that they had ever injected a drug, which remained relatively stable from 2013.
- One-quarter (26%) of RPU reported that they had recently binged on ecstasy and/or related drugs, which was a non-significant decline from 2013 (39%). The most commonly used drugs were alcohol, ecstasy, tobacco and cannabis.
- When asked about changes in the drug market, the predominant themes to emerge among RPU were that there had been an increase in drug use and an increase in the availability of 'new drugs'.

### 4.1 Drug use history and current drug use

In 2014, participants were asked about lifetime (i.e. ever having used) and recent (last six months) use of a broad range of drug types, including alcohol and tobacco. Table 2 presents the proportion of RPU reporting lifetime and recent use of the main drug types investigated by the EDRS across the sampling years (methamphetamine, cocaine, LSD, MDA, GHB and ketamine), as well as the proportion reporting lifetime and recent use of alcohol and tobacco.

Regular psychostimulant users are often described as polydrug users and the 2014 sample was no exception. Participants were asked about their lifetime and recent use of 23 different drug types.<sup>1</sup> Participants reported using a mean of nine (range=2–19; n=100) drug types in their lifetime and a mean of six (range=2–11; n=100) in the preceding six months. A stable proportion of RPU (40%) reported the use of less commonly used substances, including many of the synthetic analogues known as 'research chemicals' including mephedrone, ivory wave, dimethyltryptamine (DMT – a powerful hallucinogen); synthetic drugs such as 2CI, 2CB and BZP; and naturally occurring drugs, such as salvia. In 2014, the EDRS included a section investigating the prevalence of use of these substances among this sample. Results can be found in section 4.8: 'New psychoactive substances (NPS) use'.

Table 2 presents the proportion of RPU reporting lifetime and recent drug use across the past five years. The drugs most likely to have 'ever' been used and to have been used in the preceding six months were alcohol, followed by cannabis and tobacco. This has remained relatively constant over the years.

<sup>1</sup> Drug types were ecstasy (pills, powder, crystals & capsules), methamphetamine (powder, base & crystal), pharmaceutical stimulants, cocaine, LSD, MDA, 'magic mushrooms', ketamine, GHB (includes 1,4-butanediol and gamma-butyrolactone (GBL)), amyl nitrate, nitrous oxide, alcohol, cannabis, benzodiazepines, antidepressants, tobacco, heroin, methadone, buprenorphine, over the counter (OTC) stimulants, steroids, OTC codeine and other opiates.

**Table 2: Lifetime and recent (last six months) use of drugs amongst RPU, 2010–2014**

|                                    | 2010 | 2011 | 2012 | 2013 | 2014       |
|------------------------------------|------|------|------|------|------------|
| <b>Alcohol</b>                     |      |      |      |      |            |
| Ever used (%)                      | 99   | 99   | 99   | 100  | <b>100</b> |
| Used last six months (%)           | 92   | 99   | 99   | 97   | <b>100</b> |
| <b>Cannabis</b>                    |      |      |      |      |            |
| Ever used (%)                      | 100  | 97   | 98   | 94   | <b>98</b>  |
| Used last six months (%)           | 84   | 92   | 88   | 85   | <b>87</b>  |
| <b>Tobacco</b>                     |      |      |      |      |            |
| Ever used (%)                      | 80   | 93   | 96   | 84   | <b>92</b>  |
| Used last six months (%)           | 69   | 86   | 85   | 75   | <b>82</b>  |
| <b>E-cigarettes<sup>#</sup></b>    |      |      |      |      |            |
| Ever used (%)                      | -    | -    | -    | -    | <b>64</b>  |
| Used in last six months (%)        | -    | -    | -    | -    | <b>54</b>  |
| <b>Meth. powder (speed)</b>        |      |      |      |      |            |
| Ever used (%)                      | 71   | 67   | 59   | 47   | <b>40</b>  |
| Used last six months (%)           | 38   | 45   | 24   | 21   | <b>13</b>  |
| <b>Meth. base</b>                  |      |      |      |      |            |
| Ever used (%)                      | 49   | 41   | 41   | 15   | <b>18</b>  |
| Used last six months (%)           | 28   | 24   | 24   | 11   | <b>10</b>  |
| <b>Crystal meth. (ice/crystal)</b> |      |      |      |      |            |
| Ever used (%)                      | 55   | 50   | 53   | 37   | <b>35</b>  |
| Used last six months (%)           | 26   | 43   | 32   | 28   | <b>20</b>  |
| <b>Cocaine</b>                     |      |      |      |      |            |
| Ever used (%)                      | 69   | 75   | 66   | 58   | <b>68</b>  |
| Used last six months (%)           | 42   | 45   | 37   | 35   | <b>45</b>  |
| <b>LSD</b>                         |      |      |      |      |            |
| Ever used (%)                      | 66   | 63   | 52   | 51   | <b>63</b>  |
| Used last six months (%)           | 35   | 30   | 19   | 25   | <b>35</b>  |
| <b>MDA</b>                         |      |      |      |      |            |
| Ever used (%)                      | 27   | 32   | 33   | 9    | <b>10</b>  |
| Used last six months (%)           | 7    | 15   | 9    | 3    | <b>3</b>   |
| <b>Ketamine</b>                    |      |      |      |      |            |
| Ever used (%)                      | 49   | 37   | 37   | 28   | <b>27</b>  |
| Used last six months (%)           | 13   | 8    | 10   | 6    | <b>4</b>   |
| <b>GHB/1,4B/GBL</b>                |      |      |      |      |            |
| Ever used (%)                      | 24   | 26   | 25   | 12   | <b>11</b>  |
| Used last six months (%)           | 8    | 5    | 12   | 5    | <b>3</b>   |

<sup>#</sup>first included in 2014

**Table 2: Lifetime and recent (last six months) use of drugs amongst RPU, 2010–2014 (continued)**

|                                              | 2010 | 2011 | 2012 | 2013 | 2014       |
|----------------------------------------------|------|------|------|------|------------|
| <b>Amyl nitrate</b>                          |      |      |      |      |            |
| Ever used (%)                                | 40   | 45   | 32   | 30   | <b>25</b>  |
| Used last 6 months (%)                       | 8    | 17   | 17   | 14   | <b>7</b>   |
| <b>Nitrous oxide</b>                         |      |      |      |      |            |
| Ever used (%)                                | 59   | 59   | 52   | 48   | <b>33*</b> |
| Used last 6 months (%)                       | 20   | 36   | 20   | 17   | <b>8</b>   |
| <b>Benzodiazepines<sup>#</sup></b>           |      |      |      |      |            |
| Ever used (%)                                | 42   | 53   | 47   | 59   | <b>40*</b> |
| Used last 6 months (%)                       | 25   | 42   | 32   | 29   | <b>22</b>  |
| <b>Antidepressants<sup>#</sup></b>           |      |      |      |      |            |
| Ever used (%)                                | 28   | 28   | 27   | 20   | <b>22</b>  |
| Used last 6 months (%)                       | 12   | 13   | 13   | 9    | <b>6</b>   |
| <b>Pharmaceutical stimulants<sup>#</sup></b> |      |      |      |      |            |
| Ever used (%)                                | 45   | 49   | 52   | 43   | <b>38</b>  |
| Used last 6 months (%)                       | 10   | 24   | 19   | 25   | <b>22</b>  |
| <b>Mushrooms</b>                             |      |      |      |      |            |
| Ever used (%)                                | 52   | 62   | 69   | 54   | <b>57</b>  |
| Used last 6 months (%)                       | 14   | 24   | 26   | 19   | <b>22</b>  |
| <b>Heroin</b>                                |      |      |      |      |            |
| Ever used (%)                                | 12   | 16   | 12   | 9    | <b>5</b>   |
| Used last 6 months (%)                       | 2    | 7    | 8    | 3    | <b>2</b>   |
| <b>Methadone</b>                             |      |      |      |      |            |
| Ever used (%)                                | 5    | 11   | 9    | 6    | <b>3</b>   |
| Used last 6 months (%)                       | 0    | 4    | 1    | 0    | <b>1</b>   |
| <b>Buprenorphine</b>                         |      |      |      |      |            |
| Ever used (%)                                | 1    | 5    | 10   | 2    | <b>5</b>   |
| Used last 6 months (%)                       | 0    | 5    | 5    | 0    | <b>3</b>   |
| <b>Other Opiates<sup>#</sup></b>             |      |      |      |      |            |
| Ever used (%)                                | 15   | 41   | 29   | 35   | <b>31</b>  |
| Used last 6 months (%)                       | 9    | 20   | 14   | 10   | <b>11</b>  |

**Source:** EDRS interviews

<sup>#</sup> Includes both licit and illicit use

\*  $p < 0.05$

Compared to 2013, there were only two significant changes in consumption patterns in 2014. These included:

- lower lifetime use of nitrous oxide (48% in 2013 versus 33% in 2014;  $p < 0.05$ ; 95% CI: 0.01–0.28);
- lower lifetime use of benzodiazepines (59% in 2013 versus 40% in 2014;  $p < 0.05$ ; 95% CI: 0.05–0.32).

Interestingly, there were no significant differences in the past six month use of any of the drug types, although there were non-significant increases in the recent use of tobacco (75% in 2013 versus 82% in 2014;  $p > 0.05$ ), cocaine (35% in 2013 versus 45% in 2014;  $p > 0.05$ ) and LSD (25% in 2013 versus 35% in 2014;  $p > 0.05$ ).

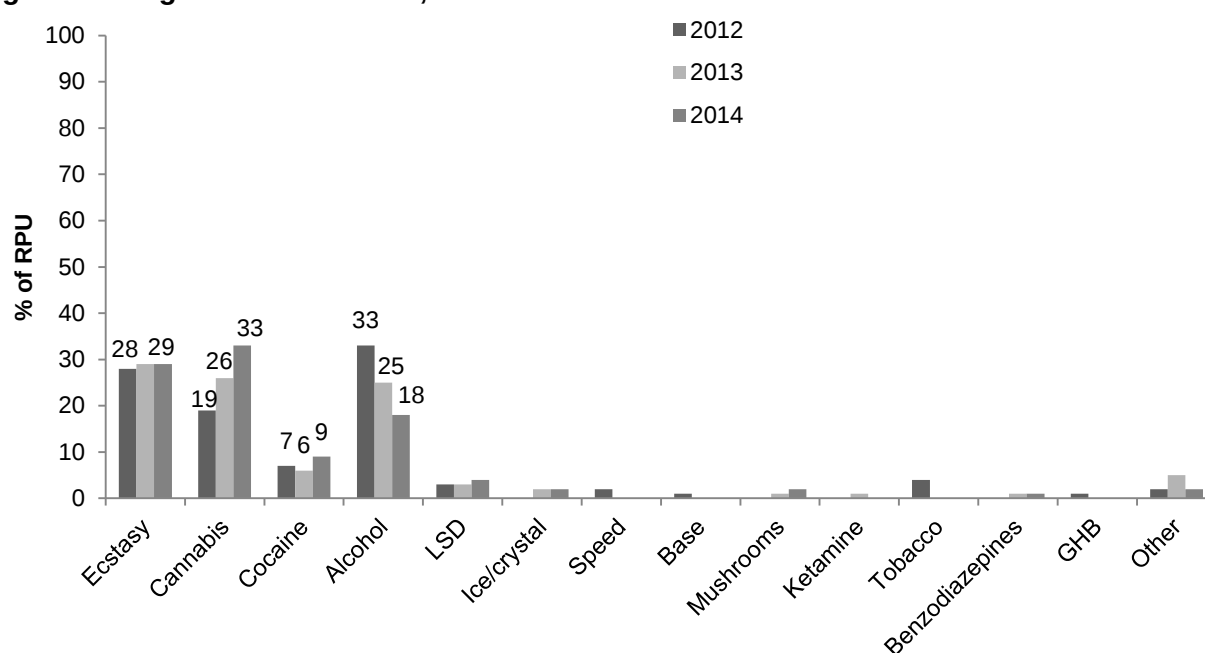
### 4.1.1 Injecting drug use

In 2014, 5% of the sample (n=5) reported having ever injected any drug, and of those 80% (n=4) reported injecting in the six months prior to interview. This has remained relatively stable from 2013. See section 7.1 'Injecting risk behaviour' for further analyses on injecting and injecting-related risk behaviour.

### 4.1.2 Drug of choice and binge drug use

Figure 1 shows the main drug of choice nominated by participants across 2012–2014. In 2014, cannabis was the preferred drug of choice for 33% of the sample, followed by ecstasy (29%) and alcohol (18%). Although there were no significant changes from 2013, it can be seen that from 2012–2014 there has been an upward trend in the proportion of participants nominating cannabis as their drug of choice, and a downward trend in those nominating alcohol as their preferred drug of choice.

**Figure 1: Drug of choice of RPU, 2012–2014**



**Source:** EDRS participant interviews

Participants were asked whether they had binged on ERD in the six months preceding interview. Bingeing was defined as using drugs on a continuous basis for more than 48 hours without sleep (Ovendon & Loxley, 1996). One-quarter (26%) of the sample reported bingeing on ERD within the six months prior to interview, which was a non-significant decrease from 2013 (39%;  $p>0.05$ ). Bingeing occurred on a median of two occasions (range=1–12) with the median length of the longest binge being 58 hours (range=48–192). The frequency remained stable from 2013, whilst the duration of the binge episode was lower (albeit not significantly) compared to 2013 which reported a median longest binge of 72 hours (range=48–408).

In 2014, alcohol emerged as the drug most commonly used in a binge session (20%). There was a significant decline in the use of ecstasy in a binge session (33% in 2013 versus 19% in 2014;  $p<0.05$ ; 95% CI: 0.02–0.26), whilst there were non-significant declines in the use of tobacco (15%), cannabis (12%) and crystal methamphetamine (8%). Other drugs which were used in a binge session are listed in Table 3, and remain relatively stable from 2013.

**Table 3: Proportion of participants reporting use of various drugs during a ‘binge’<sup>#</sup> episode in the last six months, 2013–2014**

| Drug                      | Percent of whole sample to include drug in ‘binge’ episode in the last 6 months |                 |
|---------------------------|---------------------------------------------------------------------------------|-----------------|
|                           | 2013<br>(N=100)                                                                 | 2014<br>(N=100) |
| Ecstasy                   | 33                                                                              | 19*             |
| Meth powder               | 4                                                                               | 3               |
| Meth base                 | 3                                                                               | 4               |
| Meth crystal              | 17                                                                              | 8               |
| Pharmaceutical stimulants | 2                                                                               | 1               |
| Cocaine                   | 5                                                                               | 3               |
| LSD                       | 3                                                                               | 5               |
| MDA                       | 0                                                                               | 1               |
| Ketamine                  | 0                                                                               | 0               |
| GHB                       | 0                                                                               | 1               |
| Amyl nitrate              | 1                                                                               | 0               |
| Nitrous oxide             | 1                                                                               | 2               |
| Cannabis                  | 22                                                                              | 12              |
| Alcohol                   | 28                                                                              | 20              |
| <5 std drinks             | 3                                                                               | 5               |
| >5 std drinks             | 25                                                                              | 15              |
| Other                     | 3                                                                               | 2               |
| Benzodiazepines           | 2                                                                               | 1               |
| Tobacco                   | 25                                                                              | 15              |
| Energy drinks             | 6                                                                               | 4               |
| Mushrooms                 | 0                                                                               | 1               |
| 2C-B <sup>##</sup>        | -                                                                               | 1               |

Source: EDRS participant interviews

<sup>#</sup>Defined as an episode of use of ecstasy and/or related drugs for >48 hours continuously, without sleep

<sup>##</sup>Not included as a response option in 2013

\* $p < 0.05$

### 4.1.3 Frequency of use in RPU

In 2014, participants were asked how often they had used ERD in the month preceding interview. The majority of participants reported between monthly and weekly use, and there were no significant changes from 2013. Only a small proportion reported using ecstasy and related drugs on a greater than weekly basis.

**Table 4: Frequency of ERD use in the RPU sample, 2013 & 2014**

|                       | 2013         | 2014         |
|-----------------------|--------------|--------------|
|                       | (N=100)<br>% | (N=100)<br>% |
| Not in the last month | 4            | 7            |
| Monthly               | 19           | 26           |
| Fortnightly           | 39           | 39           |
| Weekly                | 30           | 25           |
| More than once a week | 8            | 3            |
| Once a day            | 0            | 0            |
| More than once a day  | 0            | 0            |

Source: EDRS interviews

### 4.1.4 Change in trends of ERD use

EDRS participants were asked to report if they had noticed anything new happening in relation to drug use amongst themselves or their friends over the preceding six months (e.g. new drug types, patterns of use etc.). Fifty-four percent of the sample indicated that there had been some recent changes in drug use, with the two primary themes being:

- An increase in drug use (n=31). This included an increase in the frequency of use amongst friends, as well as an overall increase in the number of people using drugs. Participants noted a particular increase in the use of NPS (primarily NBOMe and DMT), methamphetamine, cocaine and ecstasy. Fewer participants reported increases in the use of LSD, cannabis, dexamphetamine and steroids.
- An increase in the number of 'new drugs' that were available, and a subsequent increase in the experimentation with such drugs (n=17). There was considerable variation in the types of 'new drugs' reported by participants and they included 5-HTP (to help come down from ecstasy), 25C-NBOMe, new types of pills, crack cocaine and MDMA powder. A number of participants also noted an increase in the purity of drugs due to online purchasing.

## 4.2 Ecstasy use

### Key Findings

- The median age of first use remained stable at 17 years of age.
- There were no significant gender differences, for either age of first use or age of first regular use.
- Participants reported using ecstasy on a median of 12 days in the preceding six months, stable from 2013.
- The proportion of participants who reported using more than one pill in a typical session remained stable in 2014, whilst there was a significant decrease in RPU who had consumed ecstasy in a binge session.
- There was a significant increase in the lifetime use of ecstasy capsules, whilst lifetime use of pills, powder and MDMA crystal remained relatively stable from 2013.
- Swallowing was the primary route of administration for ecstasy pills, capsules and crystals, whilst snorting was the main ROA for ecstasy powder. There was a significant increase in the proportion of RPU who had snorted pills in their lifetime, and an increase in RPU who had swallowed MDMA crystals in the six months preceding interview.
- Almost half (45%) of the sample reported that the last time they consumed ecstasy they had been at a nightclub.

### 4.2.1 Ecstasy use among RPU

Table 5 summarises the ecstasy use patterns of the participant sample from 2010 to 2014. The median age at which participants first tried ecstasy was 17 years (SD=2.5; range=13–31; n=100), with 77% of the sample being 18 or under. Participants reported that regular (at least monthly) ecstasy use occurred at a mean age of 19 years (SD=2.9) and at the median age of 18 years (range=13–32 years). There were no significant differences in terms of gender, for either age of first use or age of first regular use.

In 2014, participants were asked to provide information on their use of ecstasy pills, powder, capsules and crystal.<sup>2</sup> The median number of days participants reported using any ecstasy (pills, powder, capsules or crystals) within the previous six months was 12 (range=1–96; n=100); this was stable from 2013.

Forty-five percent of the sample reported using ecstasy (any form) once a fortnight or less (56% reported such use in 2013). Twenty-six percent of participants reported using ecstasy between fortnightly and weekly (31% reported such use in 2013). The proportion of participants who reported use of ecstasy more than weekly was 19% (13% in 2013). Twenty-four days within six months equates to once weekly use on average.

Participants reported that the median number of ecstasy tablets used in a typical session was two tablets (range=0.5–12.5; n=96) and this has remained stable since 2004. There was no change in the median ‘most’ amount typically used in a single session, with a median of five tablets (range=1–19; n=96) reported by participants in 2014. The majority (82%) of

<sup>2</sup> This is the second year that we have distinguished MDMA crystals as a form of ecstasy.

RPU reported that they typically used more than one tablet and just under a half (47%) reported using over two tablets per session. Nineteen percent reported having binged on ecstasy in the preceding six months, which was a significant decrease from 2013 (33%;  $p<0.05$ ; 95% CI: 0.02–0.26). Amongst those who had reported bingeing on ecstasy, the longest binge session reported was a median of 58 hours (range=48–192 hours). This was relatively stable from 2013.

**Table 5: Patterns of ecstasy use among the participants, 2010–2014**

|                                                         | 2010<br>(N=92) | 2011<br>(N=76) | 2012<br>(N=92)   | 2013<br>(N=100) | 2014<br>(N=100) |
|---------------------------------------------------------|----------------|----------------|------------------|-----------------|-----------------|
| Median age first used ecstasy (years)                   | 18             | 17             | 17               | 18              | 17              |
| Median age first used ecstasy regularly (years)         | 19             | 19             | 18               | 18              | 18              |
| Median days used ecstasy in the last six months (range) | 12<br>(6–120)  | 12<br>(6–120)  | 13<br>(5–74)     | 12<br>(1–78)    | 12<br>(1–96)    |
| Median tablets in typical session <sup>#</sup> (range)  | 2<br>(0.5–24)  | 2.5<br>(1–10)  | 2.5<br>(0.75–15) | 2<br>(1–8)      | 2<br>(0.5–12.5) |
| Typically use >1 tablets (%)                            | 81             | 83             | 92               | 82              | 82              |
| Recently binged <sup>##</sup> on ecstasy (%)            | 32             | 40             | 43               | 33              | 19*             |
| Ever injected <sup>^</sup> ecstasy (%)                  | 8              | 7              | 3                | 3               | 1               |
| Use other drugs with ecstasy (%)                        | 91             | 90             | 98               | 91              | 94              |
| Use other drugs to come down from ecstasy (%)           | 54             | 67             | 53               | 61              | 55              |

Source: EDRS participant interviews.

\* $p<0.05$ ; Note: Medians rounded to nearest whole number; <sup>^</sup> Refers to ecstasy 'pills' only; excludes powder, capsules & crystals

<sup>#</sup> A session was defined as a period of continuous drug use

<sup>##</sup> A binge was defined as an episode of use of party drugs or stimulants for >48 hours continuously, without sleep

#### 4.2.2 Other drug use with ecstasy and when coming down from ecstasy

In regards to their last episode of ecstasy use, participants were asked to provide detail on the other substances they had used either 'with ecstasy', or when 'coming down' from ecstasy. The results are presented in Table 6.

The large majority of participants (94%) reported that on their last occasion of use, they had used other drugs in combination with ecstasy; this remained stable from 2013 (91%). The most commonly used drug in this context was alcohol (82%), followed by tobacco (50%) and

cannabis (46%). In comparison to 2013, there were no significant changes in the types of drugs that were used in combination with ecstasy.

Just over half (55%) of the sample reported that, on their last episode of ecstasy use, they had used other drugs to come down from ecstasy. This remained stable from 2013. Cannabis was by far the most common drug used by participants to come down from ecstasy, with a few participants reporting the use of tobacco (9%), benzodiazepines (6%) and alcohol (4%).

**Table 6: Proportion of participants reporting use of other drugs in combination with, and coming down from, ecstasy: by drug type, 2013 & 2014**

| Drug                      | Used in combination with ecstasy<br>(% of participants) |                 | Coming down from ecstasy<br>(% of participants) |                 |
|---------------------------|---------------------------------------------------------|-----------------|-------------------------------------------------|-----------------|
|                           | 2013<br>(N=100)                                         | 2014<br>(N=100) | 2013<br>(N=100)                                 | 2014<br>(N=100) |
| Methamphetamine powder    | 4                                                       | 1               | 0                                               | 0               |
| Methamphetamine base      | 0                                                       | 0               | 0                                               | 0               |
| Methamphetamine crystal   | 4                                                       | 5               | 0                                               | 0               |
| Pharmaceutical stimulants | 0                                                       | 2               | 0                                               | 0               |
| Cocaine                   | 6                                                       | 5               | 0                                               | 0               |
| LSD                       | 1                                                       | 1               | 0                                               | 0               |
| MDA                       | 0                                                       | 0               | 0                                               | 0               |
| Mushrooms                 | -                                                       | 0               | -                                               | 0               |
| Ketamine                  | 0                                                       | 1               | 0                                               | 0               |
| GHB                       | 0                                                       | 2               | 0                                               | 0               |
| Amyl nitrate              | 2                                                       | 1               | 0                                               | 0               |
| Nitrous oxide             | 2                                                       | 0               | 0                                               | 0               |
| Cannabis                  | 45                                                      | 46              | 50                                              | 45              |
| Alcohol                   | 82                                                      | 82              | 8                                               | 4               |
| <5 standard drinks        | 12                                                      | 8               | 1                                               | 4               |
| >5 standard drinks        | 70                                                      | 74              | 7                                               | 0               |
| OTC codeine               | 1                                                       | 0               | 1                                               | 0               |
| Benzodiazepines           | 3                                                       | 2               | 8                                               | 6               |
| Tobacco                   | 47                                                      | 50              | 8                                               | 9               |
| Energy drinks             | 4                                                       | 8               | 1                                               | 0               |
| Other                     | 2                                                       | 4               | 4                                               | 3               |
| Any                       | 91                                                      | 94              | 61                                              | 55              |

Source: EDRS participant interviews

### 4.2.3 Forms of ecstasy and route of administration

In regards to lifetime use of ecstasy, pills were the commonly used form (100%), followed by capsules (65%), MDMA crystal (44%) and powder (32%). The lifetime use of pills, powder and MDMA crystal remained relatively stable from 2013, whilst there was a significant increase in the lifetime use of ecstasy capsules (49% in 2013 versus 65% in 2014;  $p < 0.05$ ; 95% CI: 0.02–0.29). Similarly, pills were by far the most commonly used form of ecstasy in the six months preceding interview (96%), followed by capsules (37%), MDMA crystal (36%) and powder (18%).

In the six months preceding the interview, 94% of participants had swallowed ecstasy pills (95% in 2013), 51% had snorted them (43% in 2013), 3% had shelved/shafted them (8% in 2013), 2% had smoked them (0% in 2013) and no participants had injected ecstasy pills (1% in 2013). Ecstasy capsules were predominantly swallowed (25% in 2013 versus 33% in 2014); although 11% had snorted them (8% in 2013) and 1% had smoked them. No participants had shelved/shafted or injected ecstasy capsules in the preceding six months. Ecstasy powder was swallowed by 11% of the sample in the preceding six months (4% in 2013) and snorted by 16% (12% in 2013). No participants reported having smoked, shelved/shafted or injected ecstasy powder during that time. MDMA crystals were swallowed by 27% of the sample in the preceding six months, which was a significant increase from 2013 (14%;  $p < 0.05$ ; 95% CI 0.02–0.24). Twenty-two percent of RPU reported that they had recently snorted MDMA crystals (13% in 2013), whilst no participants reported having smoked, shelved/shafted or injected MDMA crystals during that time.

The vast majority of participants (85%) nominated oral ingestion as their main route of ecstasy administration, which remained stable from 2013 (91%). Fifteen participants reported snorting as their main ROA (6% in 2013), whilst no participants reported smoking, shelving/shafting or injecting as their main ROA.

There were few changes in the reported routes of administration for lifetime use of ecstasy. More specifically, the only significant change was an increase in the proportion of RPU who reported that they had snorted pills in their lifetime (64% in 2013 versus 79% in 2014;  $p < 0.05$ ; 95% CI: -0.27 – -0.02).

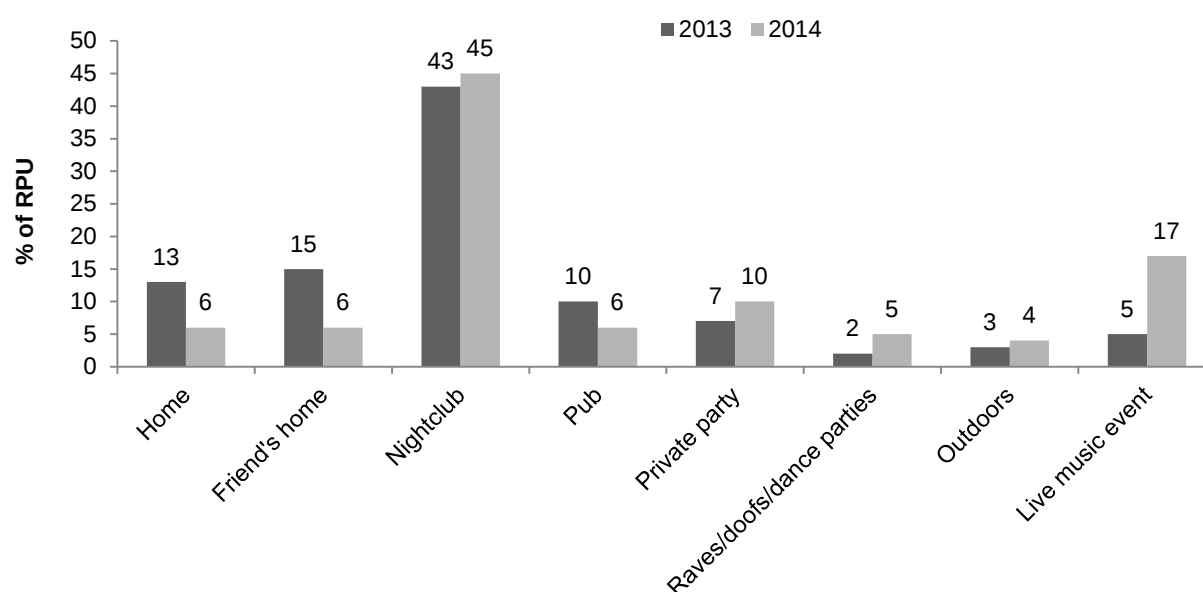
**Table 7: Prevalence and ROA of ecstasy amongst RPU, 2013 & 2014**

| %                     | Pills           |                 | Powder          |                 | Caps            |                 | Crystals        |                 |
|-----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|                       | 2013<br>(N=100) | 2014<br>(N=100) | 2013<br>(N=100) | 2014<br>(N=100) | 2013<br>(N=100) | 2014<br>(N=100) | 2013<br>(N=100) | 2014<br>(N=100) |
| <b>Lifetime use</b>   | 99              | <b>100</b>      | 28              | <b>32</b>       | 49              | <b>65*</b>      | 36              | <b>44</b>       |
| <b>ROA (lifetime)</b> |                 |                 |                 |                 |                 |                 |                 |                 |
| Swallow               | 99              | <b>100</b>      | 11              | <b>16</b>       | 49              | <b>60</b>       | 24              | <b>32</b>       |
| Snort                 | 64              | <b>79*</b>      | 21              | <b>27</b>       | 14              | <b>24</b>       | 20              | <b>28</b>       |
| Smoke                 | 2               | <b>8</b>        | 1               | <b>1</b>        | 1               | <b>2</b>        | 3               | <b>4</b>        |
| Shelve/Shaft          | 10              | <b>8</b>        | 0               | <b>0</b>        | 0               | <b>0</b>        | 0               | <b>0</b>        |
| Inject                | 3               | <b>1</b>        | 2               | <b>0</b>        | 1               | <b>0</b>        | 2               | <b>0</b>        |
| <b>Recent use</b>     | 98              | <b>96</b>       | 16              | <b>18</b>       | 26              | <b>37</b>       | 25              | <b>36</b>       |
| <b>ROA (recent)</b>   |                 |                 |                 |                 |                 |                 |                 |                 |
| Swallow               | 95              | <b>94</b>       | 4               | <b>11</b>       | 25              | <b>33</b>       | 14              | <b>27*</b>      |
| Snort                 | 43              | <b>51</b>       | 12              | <b>16</b>       | 8               | <b>11</b>       | 13              | <b>22</b>       |
| Smoke                 | 0               | <b>2</b>        | 0               | <b>0</b>        | 0               | <b>1</b>        | 1               | <b>0</b>        |
| Shelve/Shaft          | 8               | <b>3</b>        | 0               | <b>0</b>        | 0               | <b>0</b>        | 0               | <b>0</b>        |
| Inject                | 1               | <b>0</b>        | 0               | <b>0</b>        | 0               | <b>0</b>        | 0               | <b>0</b>        |

Source: EDRS participant interviews

Figure 2 presents the types of locations that participants 'last used' ecstasy. It should be noted that participants were asked to consider where they were for the majority of the time they were 'under the influence' of the drug, not where they were when they 'took [administered] the drug'. The location of last ecstasy use by participants while intoxicated in the six months prior to interview was at a nightclub (45%), followed by live music event (17%) and home (12%) (own home or a friend's home), with fewer numbers reporting a private party (10%), pub (6%), rave (5%) or outdoors (4%).

**Figure 2: Location of last ecstasy use by participants, 2013 & 2014**



Source: EDRS participant interviews

## 4.2.5 Use of ecstasy in the general population

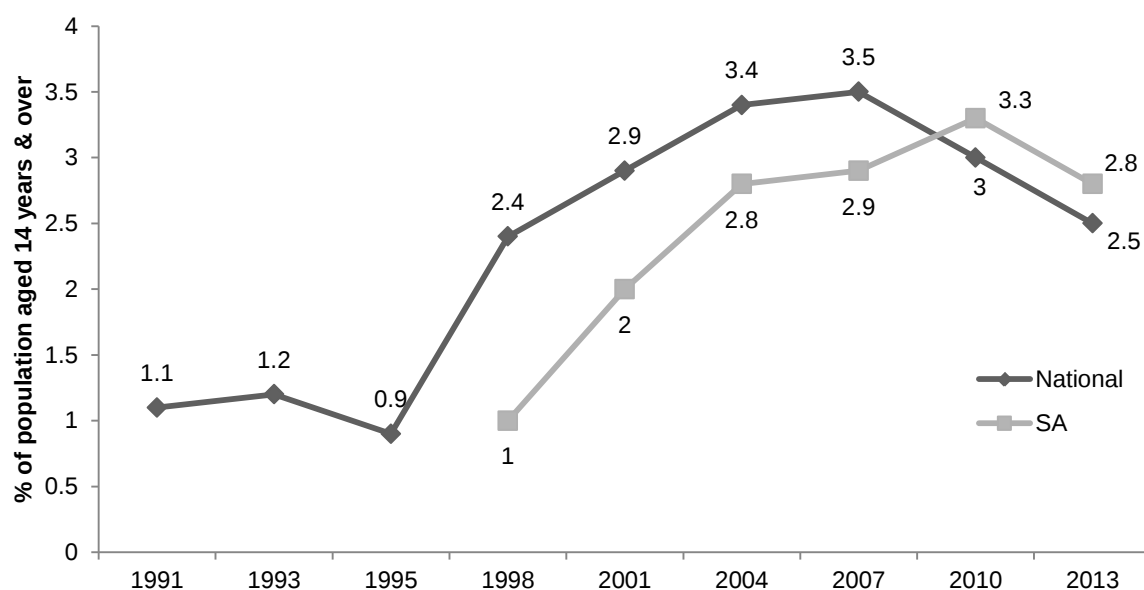
The Australian Institute of Health and Welfare (AIHW) has conducted household surveys over the last couple of decades and collected data on the prevalence of use of various illicit drugs among the general population of Australia.

Figure 3 shows the long-term trend in the prevalence of ecstasy use in Australia from 1991 to 2013 and in South Australia from 1998 to 2013. As can be seen, from 1995–2007 there was a rapid increase in the prevalence of ecstasy use in the previous 12 months. However, in 2010 (for the first time since 1995) there was a statistically significant decline in recent ecstasy use and this downward trend continued in 2013. However, the decline in ecstasy use in 2013 was only significant for females (from 2.3% to 1.8%) and for people aged 30–39 (3.9% to 2.6%) (AIHW, 2014). Recent use of ecstasy remained most prevalent among 20 to 29 year olds (8.6%). In general, males were more likely to be recent users of ecstasy, except among 12 to 17 year olds (males 0.5% versus females 1.3%) (AIHW, 2014).

Figure 3 also shows that in 2013, for the second year running, South Australia had a slightly higher prevalence of recent use of ecstasy than among the national population (2.8% versus 2.5%). The prevalence of recent use of ecstasy in SA declined slightly in 2013.

In 2013, 10.9% of the Australian population aged 14 years and older had ever used ecstasy, which was stable from 10.3% in 2010. Lifetime use of ecstasy was highest amongst those in the 30–39 (23%) and 20–29 year age group (22%) (AIHW, 2014).

**Figure 3: Prevalence of recent\* ecstasy use in Australia and South Australia, 1991–2013**



**Sources:** National Campaign Against Drug Abuse Household Survey 1991, 1993; National Drug Strategy Household Survey 1995, 1998, 2001, 2004, 2007, 2010 (Australian Institute of Health and Welfare, 2005, 2008, 2011, 2014)

\* Used at least once in the last 12 months

Note: In the 2001 and earlier surveys, ecstasy was analysed as ecstasy/designer drugs, the term 'designer drugs' not being defined in the survey. The 2004 survey separated out ecstasy, ketamine and GHB and did not cover any other 'designer drugs'

Similar to the EDRS sample, the majority of recent users of ecstasy surveyed by the National Drug Strategy Household Survey (NDSHS) in 2013 reported that they had typically obtained ecstasy from a friend or acquaintance (63%), followed by a dealer (30%). The most common place to use ecstasy was at raves/dance parties (64%), with large proportions also using at private parties (55%), public establishments (49%) and private homes (47%) (AIHW, 2014). This has remained relatively stable from 2010.

## 4.3 Methamphetamine use

### Key Findings

- There were non-significant declines in the lifetime and recent use of 'any' methamphetamine (to 55% and 32% respectively).
- Crystal methamphetamine remained the most commonly used form of methamphetamine in the six months preceding interview (20%), followed by powder methamphetamine (13%) and base methamphetamine (10%).
- Frequency of use, for all three forms of methamphetamine, remained relatively low and stable in 2014.
- Median age of first use remained stable for all three forms of methamphetamine.
- Smoking emerged as the most common ROA for ice and base, whilst snorting was the main route of administration for methamphetamine powder.

### 4.3.1 Methamphetamine use among RPU

The majority (55%) of participants reported having used one or more forms of methamphetamine (speed, base and/or ice/crystal) at some stage during their lifetime, whilst one-third (32%) reported the use of these drugs within the six months preceding interview (both stable from 2013). Two participants reported having ever injected methamphetamine. The median number of days used was 3 (range=1–77).

The distinction between three forms of methamphetamine continued in the 2014 survey. For a detailed commentary on the reasons for the differentiation into three distinct types, see White, Breen and Degenhardt (2003). The three forms of methamphetamine discussed are powder, base and ice/crystal methamphetamine.

### 4.3.2 Methamphetamine powder (speed)

Table 8 summarises the patterns of use of methamphetamine powder among the participants in 2014, with 2013 data for comparison. In 2014, participants reported having first used powder at a median of 18 years (range=15–21 years). Forty percent of participants reported lifetime use, and 13% of participants reported using methamphetamine powder in the six months prior to interview (both relatively stable from 2013). A closer analysis of frequency of use revealed that 69% (n=9) of methamphetamine powder users had used less than monthly. Two participants (15%) reported using between monthly and fortnightly, one participant reported using between fortnightly and weekly, and one participant reported using on a greater than weekly basis.

With respect to the 'average' and 'most' amounts used in a single session of use, the majority of participants provided information in terms of points. The median amount of points used in a session was 2 (range=1–20), whilst the 'most' amount of powder methamphetamine used in a single session reported by participants was also a median of 2 points (range=1–20). Compared to 2013, the 'average' and 'most' quantities reported remained relatively stable. Readers are reminded, however, that the measure of a 'point' is likely to be variable and unreliable as a measure of quantity actually consumed.

Most users of methamphetamine powder reported snorting (54%) as a route of administration in the six months prior to interview. Thirty-nine percent reported having smoked and 39% reported having swallowed powder in that same time period. There were no significant changes from 2013. The proportion of participants who reported bingeing on powder methamphetamine remained stable in 2014 (3% versus 4% in 2013).

**Table 8: Patterns of methamphetamine powder use and ROA of methamphetamine powder among the participant sample, 2013 & 2014**

|                                                                                          | 2013<br>(N=100)  | 2014<br>(N=100)    |
|------------------------------------------------------------------------------------------|------------------|--------------------|
| <b>Age first used: median in years (range)</b>                                           | 19 (16–30)       | <b>18 (15–21)</b>  |
| <b>Ever used (lifetime) (%)</b>                                                          | 47               | <b>40</b>          |
| <b>Used in last 6 months (%)</b>                                                         | 21               | <b>13</b>          |
| <b>Days used in last 6 months<sup>#</sup>: median (range)</b>                            | 2 (1–24)         | <b>3 (1–72)</b>    |
| <b>Average amount used in a single session<sup>^</sup>:</b><br>Points: median (range; n) | 1 (0.5–3; 7)     | <b>2 (1–6; 6)</b>  |
| <b>Most amount used in a single session<sup>^</sup>:</b><br>Points: median (range; n)    | 1.75 (0.5–10; 6) | <b>2 (1–20; 4)</b> |
| <b>Routes of administration recent use<sup>#</sup> (%):</b>                              | (n=21)           | <b>(n=13)</b>      |
| Swallowing                                                                               | 24               | <b>39</b>          |
| Snorting                                                                                 | 52               | <b>54</b>          |
| Smoking                                                                                  | 38               | <b>39</b>          |
| Injecting                                                                                | 5                | <b>0</b>           |

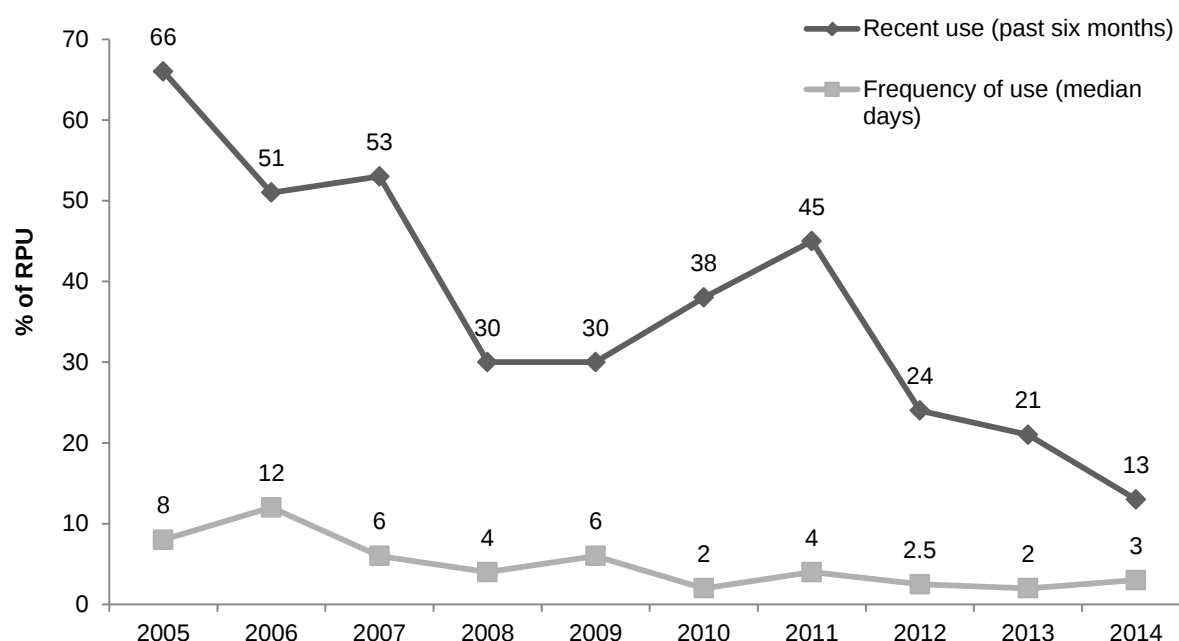
**Source:** EDRS participant interviews

<sup>#</sup> Of those who reported use in the last 6 months

<sup>^</sup> A session was defined as a period of continuous drug use without sleep, in the last 6 months

An analysis of trends over time (see Figure 4) revealed that between 2005 and 2008 there was a steady decline in the proportion of participants reporting recent use of powder methamphetamine. From 2009–11, it appeared that the use of methamphetamine powder may be on the rise again; however, this upward trend has reversed over the past few years with 13% of RPU reporting recent use of methamphetamine powder in 2014 (the lowest prevalence of recent methamphetamine powder use in the history of the SA EDRS). The median number of days used in the last six months has remained relatively stable at three days.

**Figure 4: Methamphetamine powder – trends in recent use and median days used, 2005–2014**



Source: EDRS participant interviews

### 4.3.3 Methamphetamine base

Table 9 summarises the patterns of use of methamphetamine base reported by participants in 2014. The median age of first use was 19 years (range=16–26). Eighteen percent of participants reported lifetime use, and 10% of participants reported using methamphetamine base in the six months prior to interview (both stable from 2013). Analysis of the frequency of use over the previous 6 months revealed that 56% (n=5) of base users had used once a month or less, 33% (n=3) reported using greater than monthly and up to once per fortnight, and one participant (11%) reported using between fortnightly and weekly.

With respect to the ‘average’ and ‘most’ amounts used in a session of use, most participants provided information in terms of ‘points’. The ‘average’ amount of base methamphetamine used in a session reported by participants was a median of one point (range=0.5–2), whilst the median ‘most’ amount of powder methamphetamine used in a session was 2.5 points (range=0.5–8).

Participants who had used methamphetamine base in the last six months reported having used by smoking (78%), swallowing (33%), and/or injecting (11%). Readers should note that smoking base methamphetamine overtook snorting in 2007 and remained the second most popular ROA until 2010. In 2011, smoking equalled swallowing as the main ROA for methamphetamine base and in 2012–2014 smoking emerged as the most dominant ROA. The proportion of participants reporting bingeing on base methamphetamine in 2014 was 4%.

**Table 9: Patterns of methamphetamine base use and ROA of methamphetamine base among the participant sample, 2013 & 2014**

|                                                               | 2013<br>(N=100) | 2014<br>(N=100)       |
|---------------------------------------------------------------|-----------------|-----------------------|
| <b>Age first used: median in years (range)</b>                | 19 (15–30)      | <b>19 (16–26)</b>     |
| <b>Ever used (lifetime) (%)</b>                               | 15              | <b>18</b>             |
| <b>Used in last 6 months (%)</b>                              | 11              | <b>10</b>             |
| <b>Days used in last 6 months<sup>#</sup>: median (range)</b> | 2 (1–24)        | <b>5 (2–18)</b>       |
| <b>Average amount used in a single session<sup>^</sup>:</b>   |                 |                       |
| Points: median (range; n)                                     | 1 (0.5–2; 7)    | <b>1 (0.5–2; 5)</b>   |
| <b>Most amount used in a single session<sup>^</sup>:</b>      |                 |                       |
| Points: median (range; n)                                     | 1 (0.5–4.5; 7)  | <b>2.5 (0.5–8; 6)</b> |
| <b>Routes of administration recent use<sup>#</sup> (%):</b>   | <b>(n=11)</b>   | <b>(n=9)</b>          |
| Swallowing                                                    | 27              | <b>33</b>             |
| Snorting                                                      | 9               | <b>0</b>              |
| Smoking                                                       | 64              | <b>78</b>             |
| Injecting                                                     | 9               | <b>11</b>             |

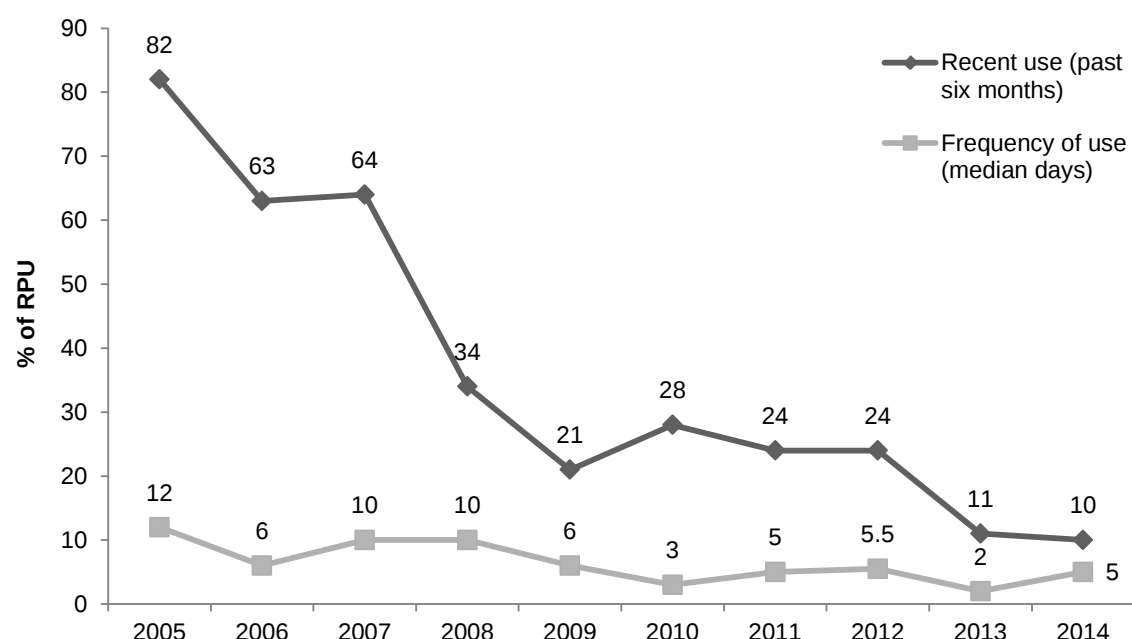
**Source:** EDRS participant interviews

<sup>#</sup> Of those who reported use in the last 6 months

<sup>^</sup> A session was defined as a period of continuous drug use without sleep, in the six months prior to interview

An analysis of trends over time (see Figure 5) reveals that the recent use of base methamphetamine has fluctuated over time, with a sharp decline being noted from 2005–09. From 2009–12, the prevalence of recent use plateaued, before a significant decline was observed in 2013. In 2014, recent use remained stable at 10%, whilst the median number of days used in the last six months increased (albeit not significantly) to five days.

**Figure 5: Methamphetamine base – trends in recent use and median days used, 2005–2014**



Source: EDRS participant interviews

#### 4.3.4 Crystal methamphetamine

Table 10 presents the patterns of use of ice/crystal methamphetamine by participants in 2014, with 2013 data for comparison. In 2014, the median age of first use was 19 years (range=15–31 years). Thirty-five percent of participants had used ice/crystal in their lifetime, which remained stable from 2013 (37%). Twenty percent of participants reported using crystal methamphetamine in the preceding six months, on a median of six days (range=1–72).

Sixty-five percent (n=13) of crystal users had used once a month or less, 20% (n=4) reported using greater than monthly and up to once per fortnight, 5% (n=1) reported using between fortnightly and monthly, and 10% (n=2) reported using weekly or more.

With respect to the ‘average’ and ‘most’ amounts used in a single session of use, most participants provided information in terms of ‘points’ of crystal. The median number of points used in an ‘average’ single session was one (range=0.5–6) and the median ‘most’ amount used in a single session was two points (range=0.5–20). Compared to 2013, participant reports in 2014 of ‘average’ and ‘most’ amounts used in a session remained stable.

Participants who had used ice/crystal methamphetamine in the previous six months reported smoking (90%), swallowing (30%) and/or snorting (20%) as the route of administration in that time. The proportion of participants who reported bingeing on crystal methamphetamine in 2014 was 8%.

**Table 10: Patterns of crystal methamphetamine use and ROA of crystal methamphetamine among the participant sample, 2013 & 2014**

|                                                               | 2013<br>(N=100) | 2014<br>(N=100)       |
|---------------------------------------------------------------|-----------------|-----------------------|
| <b>Age first used: median in years (range)</b>                | 20 (15–32)      | <b>19 (15–31)</b>     |
| <b>Ever used (lifetime) (%)</b>                               | 37              | <b>35</b>             |
| <b>Used in last 6 months (%)</b>                              | 28              | <b>20</b>             |
| <b>Days used in last 6 months<sup>#</sup>: median (range)</b> | 4 (1–96)        | <b>6 (1–72)</b>       |
| <b>Average amount used in a single session<sup>*</sup>:</b>   |                 |                       |
| Points: median (range; n)                                     | 1 (0.5–5; 22)   | <b>1 (0.5–6; 15)</b>  |
| <b>Most amount used in a single session<sup>^</sup>:</b>      |                 |                       |
| Points: median (range; n)                                     | 2 (0.5–5; 22)   | <b>2 (0.5–20; 15)</b> |
| <b>Routes of administration recent use<sup>#</sup> (%):</b>   | (n=28)          | <b>(n=20)</b>         |
| Swallowing                                                    | 19              | <b>30</b>             |
| Snorting                                                      | 7               | <b>20</b>             |
| Smoking                                                       | 93              | <b>90</b>             |
| Injecting                                                     | 7               | <b>0</b>              |

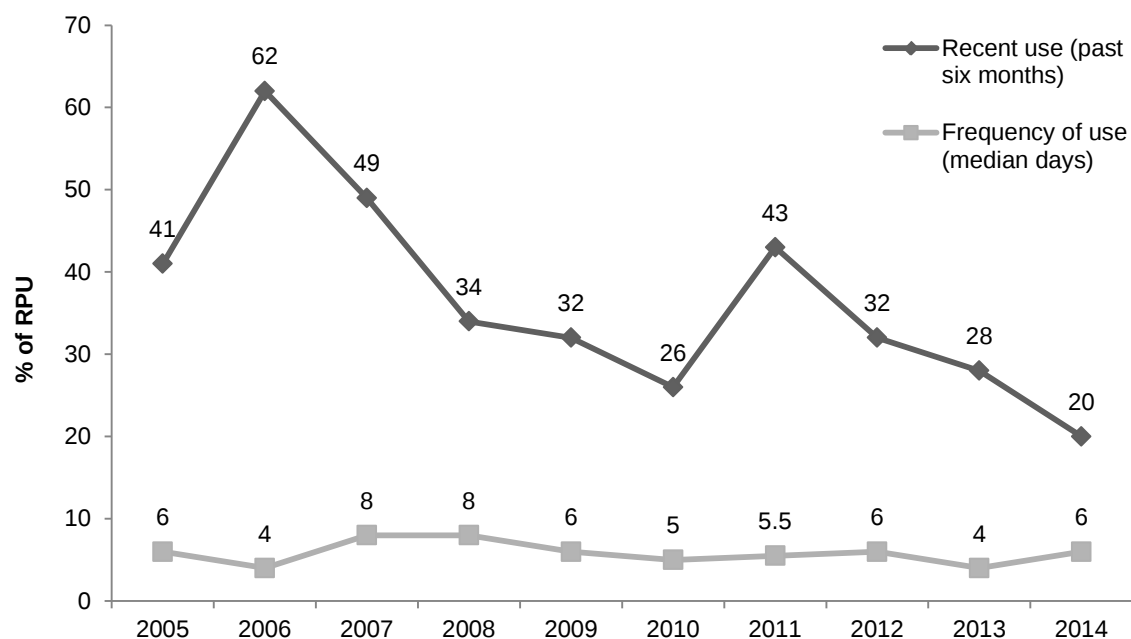
**Source:** EDRS participant interviews

<sup>#</sup> Of those who reported use in the 6 months prior to interview

<sup>^</sup> A session was defined as a period of continuous drug use without sleep, in the last six months

An analysis of trends over time (see Figure 6) reveals that, after a steady decline of recent use of crystal methamphetamine from 2006–2010, there was a significant increase in 2011 ( $p < 0.05$ ; 95% CI: -0.029 – -0.31) and a subsequent decrease (albeit non-significant) in 2012. The downward trend observed in 2012 has continued across 2013–2014. The median number of days used in the preceding six months has remained relatively stable.

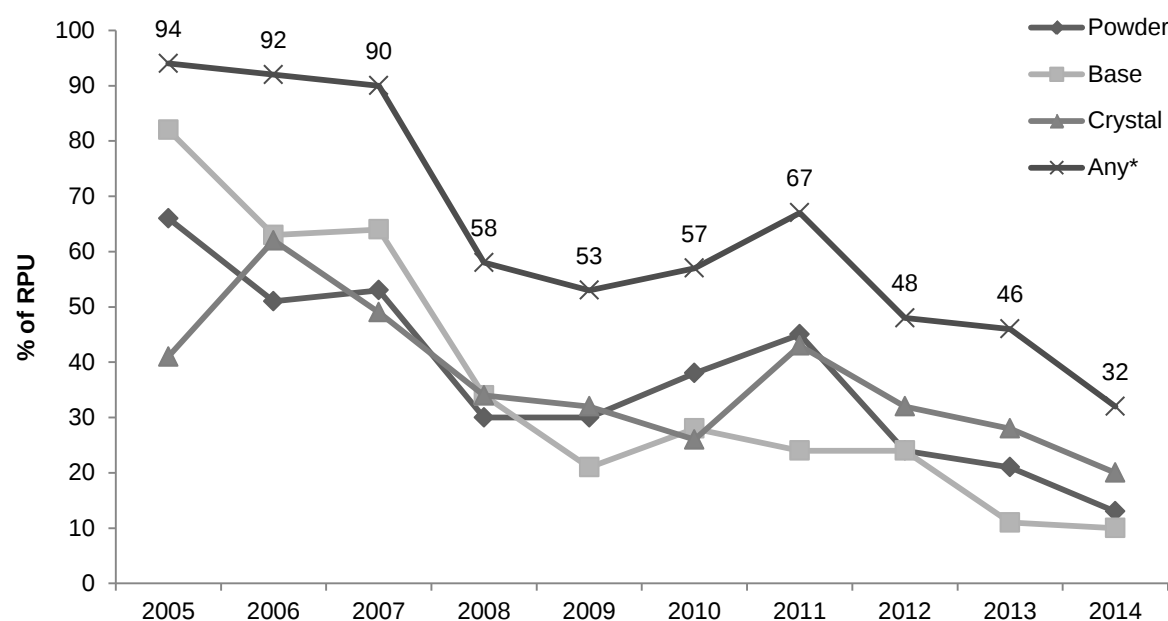
**Figure 6: Methamphetamine crystal – trends in recent use and median days used, 2005–2014**



Source: EDRS participant interviews

Figure 7 presents trends in recent methamphetamine (main forms) use from 2005 to 2014. In 2014, just under one-third (32%) of the sample reported recent use of 'any' methamphetamine (collapsed data); this was a non-significant decrease from 2013 and represents the lowest prevalence of use reported in the history of the SA EDRS. With respect to the individual categories of methamphetamine, recent use of base remained stable in 2014, whilst there were non-significant declines in the recent use of powder and crystal methamphetamine.

**Figure 7: Trends in recent use of the main forms of methamphetamine, 2005–2014**



Source: EDRS participant interviews

\* Collapsed powder, base and crystal categories

Information about where methamphetamine users spent the most time whilst they were intoxicated is presented in Table 11. The most common venue for all forms of methamphetamine was at a private home (own or friend's home).

**Table 11: Venue where participants spent the most time whilst intoxicated on methamphetamine, 2014**

|                     | Where did you spend the most time while intoxicated? |                   |                       |
|---------------------|------------------------------------------------------|-------------------|-----------------------|
|                     | Powder (%)<br>(n=6)                                  | Base (%)<br>(n=6) | Crystal (%)<br>(n=17) |
| Home                | 33                                                   | 17                | 18                    |
| Friend's home       | 0                                                    | 50                | 41                    |
| Acquaintance's home | 0                                                    | 0                 | 6                     |
| Nightclub           | 17                                                   | 33                | 12                    |
| Private party       | 17                                                   | 0                 | 0                     |
| Pub                 | 0                                                    | 0                 | 12                    |
| Rave                | 0                                                    | 0                 | 6                     |
| Live music event    | 33                                                   | 0                 | 0                     |
| Public place        | 0                                                    | 0                 | 6                     |

Source: EDRS participant interviews

### Key Expert Comments

- The majority of KE noted that their clientele didn't distinguish between speed, base and ice; rather, they just referred to methamphetamines more generally. However, it was generally agreed that crystal is the most popular form of methamphetamine being used.
- There were mixed reports regarding the prevalence of methamphetamine use: several KE reported that there was a continuing increase in methamphetamine use (as evidenced by waste water analysis and the number of drivers testing positive to methamphetamine), whilst others reported that prevalence remained high, but stable.
- When asked what drug they considered to be most problematic at the moment, the majority of KE nominated methamphetamine. The reasons for this were varied and ranged from the fact that it was highly prevalent and addictive, to the physical, mental (e.g. aggression; psychosis) and social impacts (e.g. financial problems; relationship problems; criminal activity) it can have on the individual and their family/friends. Several KE also noted that there are limited treatment options for methamphetamine dependence, making it very difficult to successfully treat those who seek help.

## 4.4 Cocaine use

### Key Findings

- The median age of first use was 19 years.
- There were non-significant increases in the lifetime and recent use of cocaine (to 68% and 45% respectively).
- Frequency of use remained low and stable.
- Snorting continued to be the main route of administration.

### 4.4.1 Cocaine use among RPU

The median age of first use of cocaine by participants was 19 years (range=16–28 years). In 2014, 68% of the sample reported having ever used cocaine, and 45% had used in the preceding six months; these were both non-significant declines from 2013. The frequency of use remained stable with a median of two days (range=1–48 days) in the six months prior to interview. The majority of recent cocaine users (80%) had used less than monthly (80% in 2013); 11% had used between monthly and fortnightly (9% in 2013); 4% reported using between fortnightly and weekly (9% in 2013); and one participant reported greater than weekly use. No participants reported daily use of cocaine.

The median amount of cocaine used in a typical or average session in the preceding six months was half of a gram (range=0.15–1.5 grams) and 2 lines (range=1–5 lines). The 'most' amount of cocaine used in a single session was a median of half a gram (range=0.15–3) and 2.5 lines (range=1–6). The reported 'average' and 'most' amount of grams used in a session was similar to that reported in 2013.

The majority of cocaine users (n=44) reported recent use of cocaine by snorting (98%), followed by swallowing (7%). No participants reported recent use by smoking, injecting or shelving/shafting. Three participants reported that they had binged on cocaine in the preceding six months.

**Table 12: Patterns of cocaine use and ROA among RPU, 2013 & 2014**

|                                                               | 2013<br>(N=100)  | 2014<br>(N=100)    |
|---------------------------------------------------------------|------------------|--------------------|
| <b>Age first used: median in years (range)</b>                | 19 (15–35)       | 19 (16–28)         |
| <b>Ever used (lifetime) (%)</b>                               | 58               | 68                 |
| <b>Used in last 6 months (%)</b>                              | 35               | 45                 |
| <b>Days used in last 6 months<sup>*</sup>: median (range)</b> | 2 (1–48)         | 2 (1–48)           |
| <b>Average amount used in a single session<sup>**</sup>:</b>  |                  |                    |
| Grams: median (range; n)                                      | 0.5 (0.25–4; 21) | 0.5 (0.15–1.5; 26) |
| Lines: median (range; n)                                      | 2 (1–7; 10)      | 2 (1–5; 14)        |

Source: EDRS participant interviews

<sup>\*</sup> Of those who reported use in the last six months

<sup>\*\*</sup> A session was defined as a period of continuous drug use without sleep, in the last six months

**Table 12: Patterns of cocaine use and route of administration among RPU, 2013 & 2014 (continued)**

|                                                  | 2013<br>(N=100) | 2014<br>(N=100)         |
|--------------------------------------------------|-----------------|-------------------------|
| <b>Most amount used in a single session**:</b>   |                 |                         |
| Grams: median (range; n)                         | 1 (0.25–4; 21)  | <b>0.5 (0.15–3; 26)</b> |
| Lines: median (range; n)                         | 2.5 (1–12; 9)   | <b>2.5 (1–6; 14)</b>    |
| <b>Routes of administration recent use* (%):</b> | (n=35)          | (n=45)                  |
| Swallowed                                        | 9               | <b>7</b>                |
| Snorted                                          | 94              | <b>98</b>               |
| Smoked                                           | 3               | <b>0</b>                |
| Injected                                         | 3               | <b>0</b>                |
| Shelved/shafted                                  | 0               | <b>0</b>                |

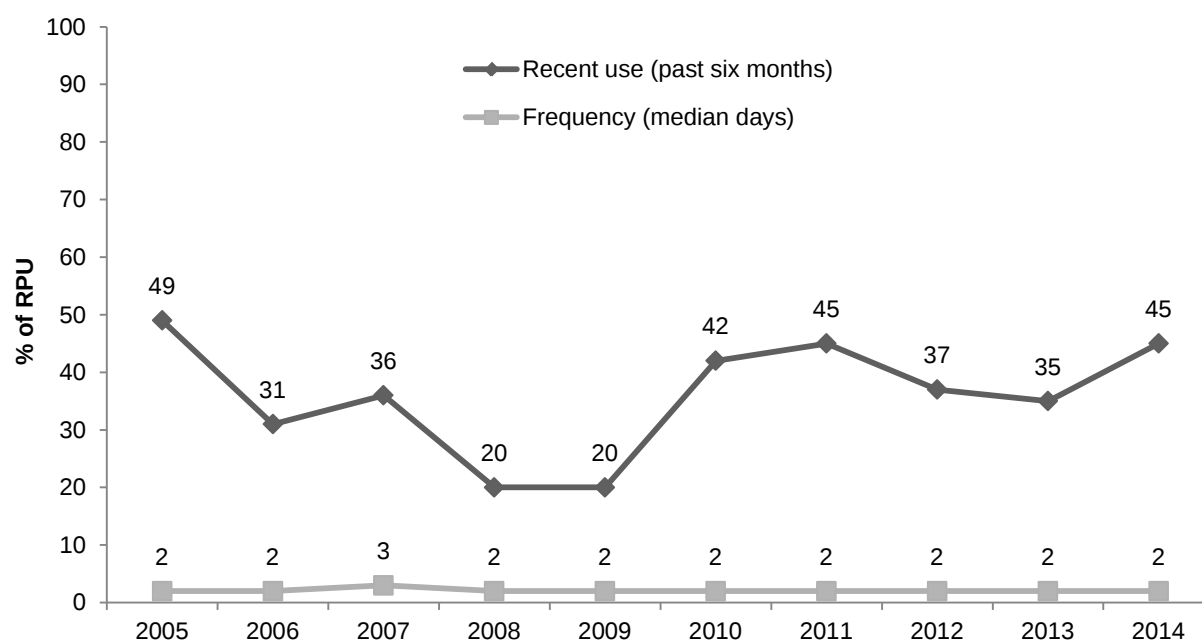
**Source:** EDRS participant interviews

\*Of those who reported use in the last six months

\*\* A session was defined as a period of continuous drug use without sleep, in the last six months

As can be seen in Figure 8, recent use of cocaine has fluctuated considerably over the past decade. More recently, cocaine use doubled from 20% in 2009 to 42% in 2010, and has remained relatively stable from 2010–14. The frequency of use has remained low and stable across the years.

**Figure 8: Cocaine – trends in recent use and median days used, 2005–2014**



**Source:** EDRS participant interviews

Twenty-eight participants commented on the location of last use (i.e. where they spent the most time whilst intoxicated). The most common venues reported were: nightclub (n=11); pub/bar (n=7); friend's home (n=4); and private party (n=2).

### Key Expert Comments

- The majority of KE reported that cocaine use had remained low and stable amongst their clientele over the preceding 12 months. There were, however, three KE who noted an increase in: the number of cocaine seizures, the availability of cocaine and the number of cocaine-related telephone calls.

## 4.5 LSD use

### Key Findings

- The median age of first use was 18, stable from 2013.
- There were non-significant increases in the lifetime and recent use of LSD. Frequency remained stable in 2014, with the majority of participants using less than monthly.
- The amount used in a typical and heavy session remained relatively stable.
- All participants reported swallowing LSD, with no other routes of administration reported.

### 4.5.1 LSD use among RPU

The median age of first LSD use was 18 years (range=13–27 years). Sixty-three percent of participants reported having used LSD in their lifetime and 35% had used it in the last six months; these were both non-significant increases from 2013. Recent users reported having used LSD on a median of two days (range=1–60 days) in the six months prior to interview. The majority (89%) of recent LSD users had used less than monthly (84% in 2013); 9% used between monthly and fortnightly (12% in 2013); and one participant reported greater than weekly use.

The ‘average’ and ‘most’ amounts of LSD used in a single session were generally reported as tabs/trips, with a median amount of one tab/trip (range=0.5–3) used on ‘average’ and one tabs/trips (range=0.5–6) used in the heaviest recent session. All LSD users reported recent use by swallowing (100%, n=35), with no other ROA reported. Five participants reported bingeing on LSD in the preceding six months.

**Table 13: Patterns of LSD use among the participant sample, 2013 & 2014**

|                                                     | 2013<br>(N=100) | 2014<br>(N=100)      |
|-----------------------------------------------------|-----------------|----------------------|
| <b>Age first used: median in years (range)</b>      | 18 (13–31)      | <b>18 (13–27)</b>    |
| <b>Ever used (lifetime) (%)</b>                     | 51              | <b>63</b>            |
| <b>Used in last 6 months (%)</b>                    | 25              | <b>35</b>            |
| <b>Days used in last 6 months: * median (range)</b> | 2 (1–25; 25)    | <b>2 (1–60; 35)</b>  |
| <b>Average amount used in a single session: **</b>  |                 |                      |
| Tabs: median (range; n)                             | 1 (1–5; 25)     | <b>1 (0.5–3; 33)</b> |
| <b>Most amount used in a single session: **</b>     |                 |                      |
| Tabs: median (range; n)                             | 2 (1–5; 25)     | <b>1 (0.5–5; 33)</b> |

\* Of those who reported use in the last six months

\*\* A session was defined as a period of continuous drug use without sleep, in the last six months

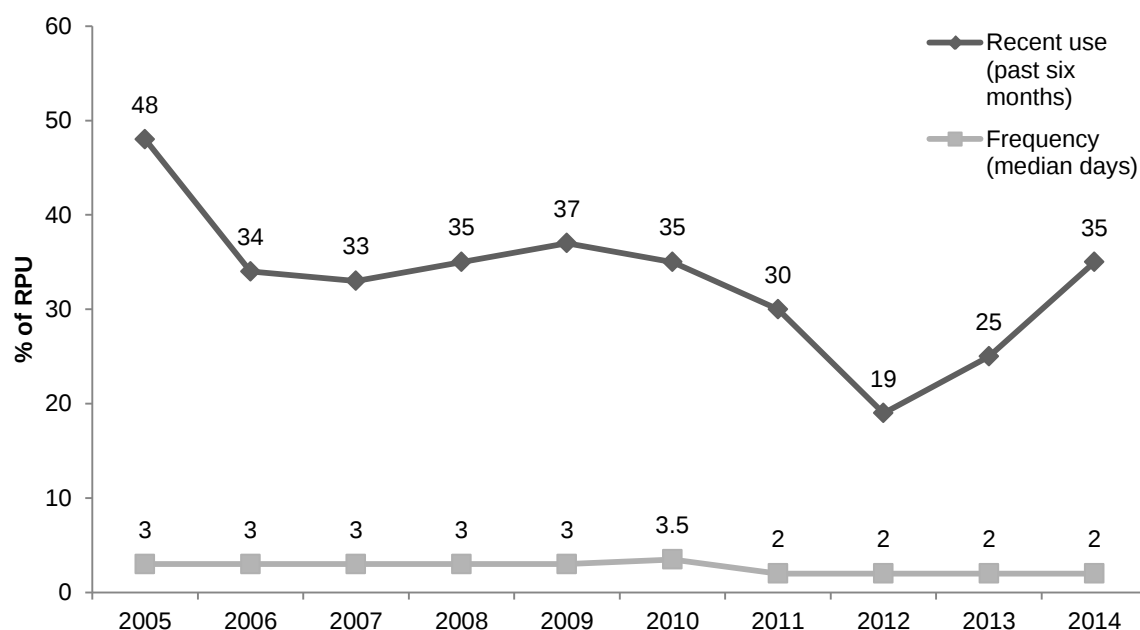
**Table 13: Patterns of LSD use among the participant sample, 2013 & 2014 (continued)**

|                                       | 2013<br>(N=100) | 2014<br>(N=100) |
|---------------------------------------|-----------------|-----------------|
| <b>Routes of Administration* (%):</b> | <b>(n=25)</b>   | <b>(n=35)</b>   |
| Swallowed                             | 100             | 100             |
| Snorted                               | 0               | 0               |
| Smoked                                | 0               | 0               |
| Shelved/Shafted                       | 0               | 0               |
| Injected                              | 0               | 0               |

**Source:** EDRS participant interviews

\* Of those who reported use in the last six months

An analysis of trends over time (see Figure 9) reveals that from 2006–11, there was relative stability in the proportion of participants who reported recent use of LSD. The prevalence of recent LSD use declined sharply in 2012 (albeit not significantly), before rebounding in 2013 and 2014. There has been little change in the frequency of use, with this parameter remaining consistently stable and low across the years.

**Figure 9: LSD – trends in recent use and median days used, 2005–2014**

**Source:** EDRS participant interviews

Of those who were able to comment (n=27), the majority reported that whilst intoxicated they spent the majority of their time at a private home (n=12), a live music event (n=6) or outdoors (n=5).

### Key Expert Comments

- A number of KE noted that they had seen an increase in the use of LSD amongst their clientele, although it was acknowledged that it is still not a widely used drug.

## 4.6 Cannabis use

### Key Findings

- Median age of first use was stable in 2014, with the majority of participants having first used cannabis at 15 years of age.
- Prevalence of cannabis use remained exceptionally high, with 98% of RPU reporting lifetime use and 87% reporting use in the preceding six months.
- Frequency of use remained stable in 2014, at a median of 48 days (approximately twice a week).
- On the last occasion of use, cannabis users reported using a median of 4 cones or one joint. This was relatively stable from 2013.
- The majority of cannabis users reported using in their own home, or at a friend's home.

To ensure more detailed information was collected on the different forms of cannabis, section 5.5 was separated into 'hydro' (hydroponically grown) and 'bush' (grown outdoors) cannabis (Breen et al., 2004; Stafford et al., 2005). However, the use patterns reported below refer to any form of cannabis.

It should also be noted that the use of hashish (hash) and hash oil was rarely reported by RPU participants ( $n < 10$ ); therefore, further details are not reported.

The current legal approach to cannabis use in South Australia is one of 'prohibition with civil penalties'. Under this approach, the production, possession or use of cannabis is illegal in SA. Any cultivation of a cannabis plant by hydroponic means will result in the accused being arrested/reported and required to attend court. A single cannabis plant grown in the ground, (i.e. not grown hydroponically), will attract an expiation fee and the plant will be confiscated and destroyed. More than one cannabis plant grown in the ground (bush cannabis) results in the accused being arrested and required to attend court. There are varying penalties for possession of cannabis offences and these penalties are dependent on the amount the person is located with. Under the Cannabis Expiation Notice Scheme, police issue the offender with an 'on-the-spot' fine notice. If the offender disagrees with any aspect of the charge, they can elect to go to court and defend the case rather than pay the expiation fee. Failure to pay the prescribed fee within the expiation period results in a summons being issued for the offender to appear in court. The original expiation fee becomes the fine, with the additional court costs.

### 4.6.1 Cannabis use among RPU

In 2014, the median age at which participants first used cannabis was 15 years (range=8–21 years), stable from 2013. Further examination of the age at which participants first used cannabis reveals that 31% reported use by the age of 14 years, 77% by 16 years, and 93% by 18 years. Ninety-eight percent of the sample reported having used cannabis in their lifetime, and 87% had used in the preceding six months.

The frequency of cannabis use reported by participants in 2014 was a median 48 days (range=1–180 days); this was stable from 2013. Amongst recent cannabis users, 16% ( $n=14$ ) had used less than monthly, 10% ( $n=9$ ) reported using between monthly and

fortnightly, 12% (n=10) reported using between fortnightly and weekly, 53% (n=46) reported using greater than weekly and 20% (n=17) reported daily use.

Recent cannabis users were asked how much cannabis they had smoked on the last day of use, as measured by the number of cones or joints used on that occasion. Cannabis had been predominantly smoked in cones (59%) as opposed to joints (36%). Among those who had smoked in cones, the median number used on the last day was 4 'cones' (range=1–100 cones), while the median number of joints smoked was 1 (range=0.5–10 joints). Daily users of cannabis had smoked a median of ten cones (range=1–100 cones) or 2 joints (range=1–4) on the last day of use.

All of those who had used cannabis reported recent use by smoking (n=87), 45% (n=39) reported use by swallowing and 18% (n=16) reported use by inhaling (using a vaporiser). Twelve percent of RPU reported bingeing on cannabis in the preceding six months.

**Table 14: Patterns of hydroponic and bush cannabis use among the participant sample, 2013 & 2014**

|                                                   | 2013<br>(N=100)  | 2014<br>(N=100)       |
|---------------------------------------------------|------------------|-----------------------|
| <b>Age first used: median in years (range)</b>    | 15 (11–20)       | <b>15 (8–21)</b>      |
| <b>Ever used (lifetime) (%)</b>                   | 94               | <b>98</b>             |
| <b>Used in last 6 months (%)</b>                  | 85               | <b>87</b>             |
| <b>Days used in last 6 months: median (range)</b> | 48 (2–180)       | <b>48 (1–180)</b>     |
| <b>Routes of administration* (%):</b>             | (n=85)           | <b>(n=87)</b>         |
| Smoked                                            | 100              | <b>100</b>            |
| Swallowed                                         | 35               | <b>45</b>             |
| Inhaled^                                          | -                | <b>18</b>             |
| <b>Cones used last time (range; n)*</b>           | 3.5 (0.5–30; 52) | <b>4 (1–100; 51)</b>  |
| <b>Joints used last time (range; n)*</b>          | 1 (0.5–5; 27)    | <b>1 (0.5–10; 31)</b> |

**Source:** EDRS participant interviews

\* Of those who reported use in the last six months

^ Using a vaporiser. Included as a ROA in 2014

Among the participants who commented on hydro, the majority reported spending most of their time (whilst intoxicated) in their own home (52%) followed by a friend's home (36%). This was a similar pattern for those who commented on bush cannabis: whilst intoxicated, participants spent most of their time at their own home (51%) or at a friend's home (35%).

### Key Expert Comments

- There was a general consensus among KE that cannabis remains popular and is still widely used among their clientele (and amongst the general population).
- Interestingly, when asked what drug they considered to be most problematic at the moment, only one KE nominated cannabis.

## 4.7 Other drug use

### Key Findings

- There were no significant changes in the lifetime or recent use of ketamine, GHB, MDA, amyl nitrate or mushrooms in 2014.
- There was a significant decline in the lifetime use of nitrous oxide, whilst recent use remained relatively stable.
- The entire sample reported consuming alcohol in the six months preceding interview, and they had done so a median of 48 days. Among these participants, 2% reported drinking on a daily basis.
- There were non-significant increases in the lifetime and recent use of tobacco (to 92% and 82% respectively).
- The majority of RPU reported lifetime (64%) and recent (54%) use of electronic cigarettes, although the frequency of use was low (less than monthly).
- There was a non-significant decline in the lifetime use of illicit benzodiazepines, whilst recent use remained relatively stable. The lifetime and recent use of other unprescribed medications (i.e. antidepressants, pharmaceutical stimulants, OTC codeine, OTC stimulants, antipsychotics, OST medications and other opioids) remained stable in 2014.
- Lifetime and recent use of heroin and steroids remained low and stable in 2014.

### 4.7.1 Ketamine

The median age of first ketamine use was 20 years (range=15–26 years). Over a quarter (27%) of the sample reported lifetime use of ketamine and 4% reported use in the six months preceding interview (both stable from 2013). The frequency of use remained low at a median of one day (range=1–6 days) in the six months prior to interview.

Ketamine use was quantified in grams (n=1), lines (n=1), pills/tabs (n=1) and millilitres (n=1). Due to the small numbers, data will not be presented for the 'typical' and 'most' amounts of ketamine used in a session.

Recent use of ketamine was reported to be either snorted (50%, n=2) or swallowed (50%, n=2). No participants reported bingeing on ketamine within the past six months.

### 4.7.2 GHB

The median age at which participants reported first using gamma-hydroxybutyrate (GHB) was 20 years (range=18–26 years). Eleven percent of RPU reported lifetime use of GHB and 3% reported use in the six months preceding interview (both stable from 2013). Recent users of GHB reported using on a median of 12 days (range=3–24).

GHB use was typically quantified in millilitres (ml). The median amount used in a typical or average episode in the preceding six months was 20 ml (range=15–20 ml), whilst the 'most' amount used in a session was 40 ml (range=20–45 ml).

All GHB users (n=3) reported swallowing GHB in the preceding six months, with no other routes of administration reported. One participant reported including GHB in a binge session in 2014.

#### **4.7.3 MDA**

In 2014, the median age at which participants reported first use of 3,4-methylenedioxyamphetamine (MDA) was 19 years (range=17–22 years). Ten percent of RPU reported lifetime use of MDA and 3% reported use in the six months preceding interview, both of which remained stable from 2013. Frequency of use was low, with participants reporting that they had used MDA on a median of 1 day (no range).

A median of one pill (no range) was used in a typical session, and a median of one pill (no range) was also used in the heaviest session of use over the preceding six months. Swallowing was the only route of administration reported by participants (n=3) and one participant reported including MDA in a binge session in the six months preceding interview.

#### **4.7.4 Inhalants use**

##### *4.7.4.1 Nitrous oxide*

The median age of first use of nitrous oxide was 18 years (range=10–25 years). In 2014, 33% of participants reported that they had ever used nitrous oxide, which was a significant decrease from 2013 (48%;  $p < 0.05$ ; 95% CI: 0.01–0.28). Eight participants reported that they had used nitrous oxide in the six months preceding interview, and they had done so on a median of four days (range=2–9). Recent nitrous oxide users reported using a median of 7.5 bulbs in a typical session (range=2–15 bulbs), and a median of ten bulbs (range=2–50) in the heaviest session of use over the preceding six months. Two participants reported having binged on nitrous oxide in the past six months.

##### *4.7.4.2 Amyl nitrate*

The median age of first use of amyl nitrate was 18 years (range=10–27 years). One-quarter (25%) of the sample reported lifetime use of amyl nitrate and 7% had used in the preceding six months. Recent users of amyl nitrate reported using on a median of four days (range=1–24) in the six months preceding interview; this was stable from 2013. No participants reported having binged on amyl nitrate in the last six months.

#### **4.7.5 Mushrooms**

Participants were asked about their use of ‘magic mushrooms’ (hallucinogenic mushrooms). The median reported age of first use of ‘magic mushrooms’ was 19 years (range=12–28 years) and 57% of participants reported having used them in their lifetime. Twenty-two percent of participants reported recent use on a median of two days (range=1–7).

#### **4.7.6 Alcohol**

In 2014, the median age at which participants reported first using alcohol was 14 years (range=5–18 years). The entire sample reported lifetime and recent use of alcohol, with RPU reporting that they had used alcohol on a median of 48 days (approximately twice a week) in the past six months (range=1–180). This remained stable from 2013. Fifty-six percent of recent alcohol users reported using alcohol more than once per week (59% in 2013), and 2% reported drinking on a daily basis (4% in 2013).

Twenty percent of participants reported including alcohol in a binge session and 82% reported typically using alcohol in combination with ecstasy, both of which remained stable from 2013 (28% and 82% respectively). The proportion of participants who reported using alcohol to come down from ecstasy remained stable (4% in 2014 versus 8% in 2013).

In 2014, the Alcohol Use Disorders Identification Test (AUDIT) was administered to participants. Detailed information regarding the AUDIT in the 2014 EDRS can be found in section 7.4: The Alcohol Use Disorders Identification Test (AUDIT).

#### **4.7.7 Tobacco**

The median reported age of first use of tobacco was stable from 2013, at 16 years (range=7–22 years). Ninety-two percent of RPU reported lifetime use of tobacco and 82% reported use in the six months preceding interview, both of which represent non-significant increases from 2013 (84% and 75% respectively). Inversely, there was a non-significant decrease in the frequency of participants' tobacco use, with RPU reporting that they had used tobacco on a median of 150 days in the previous six months (compared to 180 days in 2013). Similarly, there was a non-significant decline in the proportion of recent tobacco users who reported daily use (49% in 2014 versus 64% in 2013;  $p>0.05$ ), although this continues to greatly exceed the daily smoking prevalence rate in the general South Australian population aged 14 years and over (12.8%; AIHW, 2014).

#### **4.7.8 Electronic cigarettes**

In 2014, for the first time, participants were asked about their lifetime and recent use of electronic cigarettes. Almost two-thirds (64%) of RPU reported they had used electronic cigarettes within their lifetime, and they had initiated use at a median of 19 years (range=16–28 years). Fifty-four percent of the sample reported that they had recently used these substances, and they had done so on a median of four days (range=1–180).

#### **4.7.9 Benzodiazepines**

Since 2007, participants have been asked to distinguish between their use of licit and illicit benzodiazepines.

The median age of first use of illicit benzodiazepines was 19 years (range=16–26 years), which is stable from 2013. Over one-third (37%) of RPU reported lifetime use of illicit benzodiazepines, which represents a non-significant decrease from 2013 (51%;  $p>0.05$ ). Twenty percent of the sample reported that they had used illicit benzodiazepines in the six months preceding interview, and they had done so on a median of 5 days (range=1–25).

#### **4.7.10 Antidepressants**

Since 2007, participants have been asked to distinguish between their use of licit and illicit antidepressants.

Five participants reported lifetime use of illicit antidepressants, and they had initiated use at a median age of 18 years (range=16–31 years). Two participants reported using illicit antidepressants in the preceding six months, and they had done so on a median of 9 days (range=2–15).

#### **4.7.11 Pharmaceutical stimulants**

For the past few years, participants have been asked about their use of pharmaceutical stimulants, such as dexamphetamine, pseudoephedrine and methylphenidate (Ritalin), and in 2007 participants were asked to distinguish between licit and illicit use.

In 2014, the median reported age of first use of illicit pharmaceutical stimulants was 19 years (range=13–28 years). Thirty-six percent of the sample reported use of illicit pharmaceutical stimulants in their lifetime, and 21% reported use within the preceding six months (both stable from 2013). Frequency also remained relatively stable at a median of two days (range=1–48). The ROA of recent use was mainly swallowing ( $n=21$ ), followed by snorting ( $n=5$ ).

#### **4.7.12 Over the counter (OTC) codeine**

The median age at which participants reported first using OTC codeine for non-medicinal purposes was 18 years (range=15–23 years). Twenty-eight percent of participants reported ever using OTC codeine and 14% reported use in the preceding six months, both of which remained stable from 2013. Frequency also remained relatively stable at a median of three days (range=1–180). Swallowing was reported by the majority (86%) of recent OTC codeine users; although three participants reported that they had snorted OTC codeine in the preceding six months.

#### **4.7.13 Over the counter (OTC) stimulants**

The median age at which participants reported first using OTC stimulants for non-medicinal purposes was 19 years (range=15–27 years), stable from 2013. Eleven percent of participants reported ever using OTC stimulants, and three participants reported use of this substance on a median of one day (range=1–4) within the preceding six months. Swallowing was the only ROA reported by recent OTC stimulant users.

#### **4.7.14 Antipsychotics**

The median age at which participants reported first using illicit antipsychotics was 18 years (range=16–31 years). Five percent of participants reported ever using illicit antipsychotics, and two participants reported use of this substance on a median of nine days (range=2–15) within the preceding six months. Swallowing was the only ROA reported by recent illicit antipsychotic users.

#### **4.7.15 OST medications**

##### *4.7.15.1 Methadone*

The median age of first use of methadone was 22 years (range=19–22 years). In 2014, 3% of participants reported that they had ever used methadone and one participant reported use of this drug within the preceding six months.

##### *4.7.15.2 Buprenorphine*

The median age of first use of buprenorphine was 21 years (range=18–22 years). Five participants reported lifetime use of buprenorphine and three participants had used in the preceding six months. Recent users of buprenorphine reported using on a median of three days (range=1–3) in the six months preceding interview.

#### **4.7.16 Other opioids**

The median age of first use of illicit other opiates was 20 years (range=13–38 years). Twenty-one percent of the sample reported lifetime use and 9% had used other illicit opiates in the six months prior to interview. The median days of illicit opiate use was three days (range=1–10 days). The main ROA by those who had recently used was swallowing (100%, n=9), followed by snorting (n=2). No participants reported injecting, smoking or snorting/shafting.

#### **4.7.17 Heroin**

The median age of first heroin use was 19 years (range=10–26 years), with 5% of the 2014 RPU sample reporting that they had ever used heroin. Consistent with the low levels of recent use among the RPU cohorts in previous years, only two participants had used heroin during the six months preceding the interview and they used heroin on a median of one day (no range). Smoking and swallowing were the only reported ROA of recent use.

#### 4.7.18 Steroid use

The median age at which participants reported first using steroids was 19 years (range=17–25 years). Six percent of RPU reported lifetime use of steroids, and three participants reported that they had used steroids on a median of 45 days (range=24–180) within the preceding six months. Injecting and swallowing were the two main ROA reported by recent steroid users.

##### Key Expert Comments

- The majority of KE reported that they had seen very little ketamine or GHB use amongst their clientele over the preceding 12 months. That being said, there were two KE who noted that there had been a number of large seizures of 1,4 butanediol in that time frame. In addition, there were reports of an increase in 1,4 butanediol being sold as GHB, as well as reports of GHB being manufactured using a precursor called GAMA-Aminobutyric acid.
- Alcohol use was generally reported as stable, and prolific, with no real changes over the preceding 12 months.
- Five KE nominated alcohol as the drug they considered most problematic at the time of interview. Of particular concern was the widespread use and social acceptability of alcohol consumption, as well as bingeing behaviours and the dangers associated with alcohol withdrawals.
- Tobacco use was reported to have remained highly prevalent amongst clients. However, one KE did note a slight increase in the use of pharmacotherapies (e.g. Champix) to address tobacco dependence, as well as an increase the use of electronic cigarettes as a smoking cessation tool.

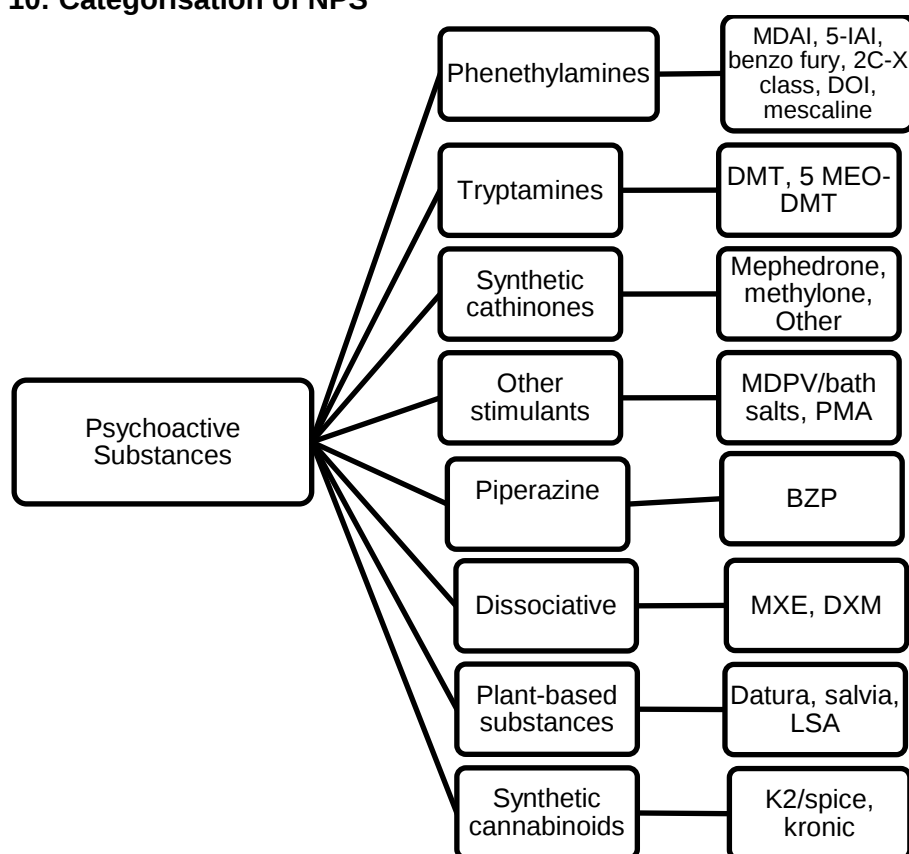
## 4.8 New psychoactive substances (NPS) use

### Key Findings

- The use of NPS remained common in 2014, with 40% of RPU reporting that they had used 'any' NPS in the six months preceding interview.
- The most commonly used NPS in the six months preceding interview were NBOMe, 2CB and DMT.
- There were no significant differences in either lifetime or recent use of NPS in 2014.

From 2010 onward, the EDRS has attempted to systematically investigate a group of new or emerging drugs known as 'psychoactive substances' (also known as research chemicals, analogues, legal highs, herbal highs, party pills). These drugs can be classified as outlined in Figure 10.

**Figure 10: Categorisation of NPS**



**Source:** See UNODC, *World Drug Report 2013* (United Nations publication, Sales No. E.13.XI.6, page 49)

Table 15 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 15: New psychoactive substances**

| Street name                 | Chemical name                        | Information on drug                                                                                                       | Information on use and effects                                                                                                                                                                                                                                                                   |
|-----------------------------|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Phenethylamines</b>      |                                      |                                                                                                                           |                                                                                                                                                                                                                                                                                                  |
| 2CI                         | 2,5-dimethoxy-4-iodophenethylamine   | A psychedelic drug with stimulant effects                                                                                 | Recent reports suggest that 2CI is slightly more potent than the closely related 2CB.                                                                                                                                                                                                            |
| 2CB                         | 4-bromo-2,5-dimethoxyphenethylamine  | A psychedelic drug with stimulant effects                                                                                 | 2CB is sold as a white powder sometimes pressed in tablets or gel caps. Commonly taken orally but can also be snorted.                                                                                                                                                                           |
| 2CE                         | 2,5-dimethoxy-4-ethylphenethyl-amine | A psychedelic drug with stimulant effects                                                                                 | Commonly taken orally and highly dose-sensitive.                                                                                                                                                                                                                                                 |
| NBOMe                       | N-methoxybenzyl                      | Psychedelic drugs with stimulant effects                                                                                  | NBOMe includes a series of drugs that contain an N-methoxybenzyl group. The most common NBOMes that are used recreationally are extensions of the 2C family of phenethylamine psychedelics, and include 25B-NBOMe, 25I-NBOMe and 25C-NBOMe. Available in powder, tablet and liquid formulations. |
| DOI (death on impact)       | 2,5-dimethoxy-4-iodoamphetamine      | A psychedelic phenethylamine                                                                                              | Requires only very small doses to produce full effects. Has been found on blotting paper and may be sold as LSD. <sup>3</sup>                                                                                                                                                                    |
| Mescaline                   | 3,4,5-trimethoxyphenethylamine       | A hallucinogenic alkaloid                                                                                                 | First isolated in 1896 from the peyote cactus of northern Mexico.                                                                                                                                                                                                                                |
| <b>Tryptamines</b>          |                                      |                                                                                                                           |                                                                                                                                                                                                                                                                                                  |
| DMT                         | Dimethyltryptamine                   | A hallucinogenic drug in the tryptamine family                                                                            | Similar to LSD though its effects are said to be more powerful. Pure DMT is usually found in crystal form but has been reportedly sold in powder form. <sup>4</sup>                                                                                                                              |
| 5-MeO-DMT                   | 5-methoxy-N,N-dimethyltryptamine     | A naturally occurring psychedelic tryptamine present in numerous plants and in the venom of the <i>Bufo alvarius</i> toad | 5-MeO-DMT is comparable in effects to DMT; however, it is substantially more potent. 5-MeO-DMT is mostly seen in crystalline form <sup>5</sup> but has been reportedly sold in powder form.                                                                                                      |
| <b>Synthetic cathinones</b> |                                      |                                                                                                                           |                                                                                                                                                                                                                                                                                                  |
| 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.                                                                                               |
| Methylone                   | 3,4-methylenedioxy-N-methylcathinone | An entactogen and stimulant of the phenethylamine, amphetamine, and cathinone classes                                     | Effects are primarily psychostimulant in nature.                                                                                                                                                                                                                                                 |

<sup>3</sup> Erowid: <http://www.erowid.org/chemicals/doi/doi.shtml>

<sup>4</sup> Drugscope: <http://www.drugscope.org.uk/resources/drugsearch/drugsearchpages/dmt>

<sup>5</sup> Erowid: [http://www.erowid.org/chemicals/5meo\\_dmt/5meo\\_dmt.shtml](http://www.erowid.org/chemicals/5meo_dmt/5meo_dmt.shtml)

**Table 15: New psychoactive substances (continued)**

| Street name                           | Chemical name                                                                                                                  | Information on drug                                                                                           | Information on use and effects                                                                                                                                                                                                                                                                                                                                |
|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Other stimulants</b>               |                                                                                                                                |                                                                                                               |                                                                                                                                                                                                                                                                                                                                                               |
| PMA                                   | Paramethoxyamphetamine;<br>4-methoxy-amphetamine                                                                               | A synthetic hallucinogen that has stimulant effects                                                           | Ingesting a dose of <50mg (usually one pill or capsule) without other drugs or alcohol induces symptoms reminiscent of MDMA, although PMA is more toxic than MDMA. Doses >50mg are considered potentially lethal (due to the risk of overheating).                                                                                                            |
| Ivory wave/MDPV                       | Methylenedioxypyrovalerone (3,4-methylenedioxy)                                                                                | A cathinone derivative                                                                                        | More potent than other cathinones. Lidocaine (a common local anesthetic) 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 (e.g. high-purity cocaine). <sup>6</sup>                                                                                               |
| <b>Piperazines</b>                    |                                                                                                                                |                                                                                                               |                                                                                                                                                                                                                                                                                                                                                               |
| BZP                                   | 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. |
| <b>Dissociative</b>                   |                                                                                                                                |                                                                                                               |                                                                                                                                                                                                                                                                                                                                                               |
| DXM                                   | Dextromethorphan                                                                                                               | A semisynthetic opiate derivative which is legally available over the counter in the US                       | Commonly found in cough suppressants, especially those with 'DM' or 'Tuss' in their names. It is a dissociative drug that is almost always used orally, although pure DXM powder is occasionally snorted.                                                                                                                                                     |
| <b>Naturally occurring substances</b> |                                                                                                                                |                                                                                                               |                                                                                                                                                                                                                                                                                                                                                               |
| Datura                                | Commonly <i>Datura innoxia</i> and <i>Datura stramonium</i> . Contains Atropine and Scopolamine. Also known as Angel's Trumpet | 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. <sup>7</sup>                                                                                                                                     |
| Salvia                                | <i>Salvia divinorum</i> (contains Salvinorin A)                                                                                | Salvia is derived from the American plant <i>Salvia divinorum</i> , a member of the mint family               | At low doses (200–500mcg) salvia produces profound hallucinations that last from 30 minutes to an hour or so. In higher doses the hallucinations last longer and are more intense. <sup>8</sup>                                                                                                                                                               |
| LSA                                   | <i>d</i> -lysergic acid amide                                                                                                  | A naturally occurring psychedelic found in 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.                                                                                                                                                                                                                            |

<sup>6</sup> Drugscope: [http://www.drugscope.org.uk/Media/Press+office/pressreleases/ivory\\_wave\\_MDPV](http://www.drugscope.org.uk/Media/Press+office/pressreleases/ivory_wave_MDPV)

<sup>7</sup> Drugscope: <http://www.drugscope.org.uk/resources/drugsearch/drugsearchpages/datura>

<sup>8</sup> Drugscope: <http://www.drugscope.org.uk/resources/drugsearch/drugsearchpages/salvia>

**Table 15: New psychoactive substances (continued)**

| Synthetic cannabis |                       |                                                                                                                 |                                                                                                 |
|--------------------|-----------------------|-----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| 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. |

Amongst the 2014 SA EDRS sample, 40% reported having used an NPS in the six months preceding interview (including synthetic cannabinoids). Excluding the use of synthetic cannabinoids, it was found that 37% of the sample had recently used some form of NPS. This was stable from 2013.

The most common psychoactive substances ever used among Adelaide RPU were DMT (28%), 2CB (26%), herbal highs (21%), 2CI (18%), NBOMe (17%), unknown capsules (14%) and salvia (11%). The proportions of participants who had used psychoactive substances in the last six months were considerably lower: those most commonly used were NBOMe (16%), 2CB (10%) and DMT (10%) (see Table 16). There were no significant changes in either lifetime or recent use of NPS in 2014.

**Table 16: Proportion of participants reporting lifetime and recent use of NPS, 2013–2014**

| Research chemicals          | Ever used (%)   |                 | Used last six months (%) |                 |
|-----------------------------|-----------------|-----------------|--------------------------|-----------------|
|                             | 2013<br>(N=100) | 2014<br>(N=100) | 2013<br>(N=100)          | 2014<br>(N=100) |
| <b>Phenethylamines</b>      |                 |                 |                          |                 |
| 2CB                         | 27              | 26              | 14                       | 10              |
| 2CE                         | 3               | 6               | 1                        | 1               |
| 2CI                         | 8               | 18              | 6                        | 8               |
| NBOMe <sup>#</sup>          | -               | 17              | -                        | 16              |
| MDAI                        | 2               | 0               | 1                        | 0               |
| Benzo fury (6-APB)          | 0               | 1               | 0                        | 0               |
| Mescaline                   | 6               | 9               | 1                        | 5               |
| DOI                         | 5               | 6               | 3                        | 0               |
| 5-IAI                       | 0               | 1               | 0                        | 0               |
| <b>Tryptamine</b>           |                 |                 |                          |                 |
| 5MEO-DMT                    | 1               | 2               | 1                        | 0               |
| DMT                         | 28              | 28              | 14                       | 10              |
| <b>Synthetic cathinones</b> |                 |                 |                          |                 |
| Mephedrone                  | 11              | 7               | 4                        | 2               |
| Methylone/bk MDMA           | 2               | 5               | 1                        | 1               |
| <b>Other stimulants</b>     |                 |                 |                          |                 |
| Ivory wave/MDPV             | 2               | 1               | 1                        | 0               |
| PMA                         | 4               | 9               | 3                        | 4               |
| <b>Piperazines</b>          |                 |                 |                          |                 |
| BZP                         | 2               | 1               | 0                        | 0               |

<sup>#</sup>Not asked in 2013

**Table 16: Proportion of participants reporting lifetime and recent use of NPS, 2013–2014 (continued)**

| Research chemicals            | Ever used (%)   |                 | Used last six months (%) |                 |
|-------------------------------|-----------------|-----------------|--------------------------|-----------------|
|                               | 2013<br>(N=100) | 2014<br>(N=100) | 2013<br>(N=100)          | 2014<br>(N=100) |
| <b>Dissociative</b>           |                 |                 |                          |                 |
| DXM                           | 10              | 5               | 5                        | 0               |
| <b>Plant-based substances</b> |                 |                 |                          |                 |
| Salvia divinorum              | 7               | 11              | 4                        | 0               |
| LSA                           | 12              | 7               | 2                        | 0               |
| Datura                        | 3               | 3               | 1                        | 0               |
| <b>Synthetic cannabis</b>     |                 |                 |                          |                 |
| Kronic                        | 12              | 8               | 5                        | 3               |
| K2/Spice                      | 2               | 1               | 0                        | 0               |
| Other                         | 5               | 2               | 3                        | 0               |
| <b>Unknown capsule</b>        | 12              | 14              | 8                        | 6               |
| <b>Herbal high</b>            | 21              | 21              | 10                       | 6               |

Source: EDRS participant interviews

In 2014, participants who had used an NPS in the six months preceding interview were asked further questions regarding frequency of use, where they obtained their drugs from, the price of their last purchase, and whether they specifically sought out the drug or were offered it. Refer to Table 17 for the results (data is only presented for NPS which had been used by at least 10% of RPU in the past six months).

**Table 17: Frequency, ROA, source and price of NPS in the six months preceding interview, 2014**

|                                      | NBOMe<br>(n=16) | 2CB<br>(n=10)  | DMT<br>(n=10)   |
|--------------------------------------|-----------------|----------------|-----------------|
| <b>Median days of use (range)</b>    | 7 (1–48)        | 1 (1–2)        | 1 (1–6)         |
| <b>ROA %</b>                         |                 |                |                 |
| Swallow                              | 94              | 80             | 20              |
| Smoke                                | 0               | 10             | 80              |
| Snort                                | 6               | 0              | 0               |
| Inject                               | 0               | 0              | 0               |
| <b>Source %</b>                      |                 |                |                 |
| Internet                             | 31              | 0              | 22              |
| Dealer                               | 31              | 20             | 22              |
| Friend                               | 38              | 70             | 33              |
| Gift                                 | 0               | 10             | 22              |
| <b>Median price of last purchase</b> | \$5 per tab     | \$15 per pill^ | \$15 per point^ |
| <b>Offered or sought %</b>           |                 |                |                 |
| Offered                              | 7               | 70             | 33              |
| Sought                               | 93              | 30             | 67              |

Source: EDRS participant interviews

^n<10

### **Key Expert Comments**

- Interestingly, few KE were able to comment on any of the new psychoactive substances listed. The primary comments related to the presence of NPS in pills sold as ecstasy (see section 5.1). The most common drugs detected in seized 'ecstasy' pills over the preceding 12 months (excluding MDMA) were 25I-NBOMe and 25C-NBOMe, with reports of individuals importing up to 100,000 NBOMe pills.
- There were reports of infrequent seizures of synthetic cannabinoids, with the majority of KE reporting little/no use of these drugs amongst their clients.

## 5 DRUG MARKET: PRICE, PURITY, AVAILABILITY AND PURCHASING PATTERNS

### 5.1 Ecstasy

#### Key Findings

- The price of ecstasy remained stable at \$20 for a pill.
- The majority of the sample reported that the price of ecstasy had remained stable in the six months prior to interview.
- The current purity of ecstasy (pills, powder and caps) was perceived as medium, whilst the purity of MDMA crystal was perceived as high. Perceptions regarding changes in the purity of ecstasy over the past six months were mixed; those answering for MDMA crystal reported that purity had remained stable over the six months preceding interview, whilst those answering for pills, powder and caps largely reported that purity had fluctuated over the preceding six months.
- Ecstasy was largely reported as easy or very easy to obtain; however, 37% of those able to answer reported that MDMA crystal was 'difficult' to obtain.
- The median number of ecstasy tablets purchased in the six months prior to interview remained stable in 2014, as did the median number of people that ecstasy was purchased from. There was, however, a significant increase in the proportion of RPU who reported purchasing ecstasy for themselves and others.
- Most participants reported scoring from a friend, and at a friend's home.

In 2014, participants were asked to report on the PPA of ecstasy 'pills, powder and caps' separately to MDMA crystals. This distinction was made following participant reports in 2013 that MDMA crystals differed quite substantially to pills, powder and caps, particularly in regards to purity and availability.

#### 5.1.1 Price

In 2014, participants were asked about the cost of ecstasy 'at last purchase'. The majority of participants were able to provide an estimate of the price of ecstasy pills at last purchase, with the median 'last' price of a tablet/pill being \$20 (range=\$8–50; n=92). This has remained stable over the past several years (Figure 11). Twenty-seven participants were also able to answer about the price of a 'cap', with the median price being \$25 (range=\$14–35). The median price for a gram of MDMA crystal was \$200 (\$50–400). Across all forms of ecstasy, the majority of those who were able to comment reported that the price had remained stable in the six months preceding interview

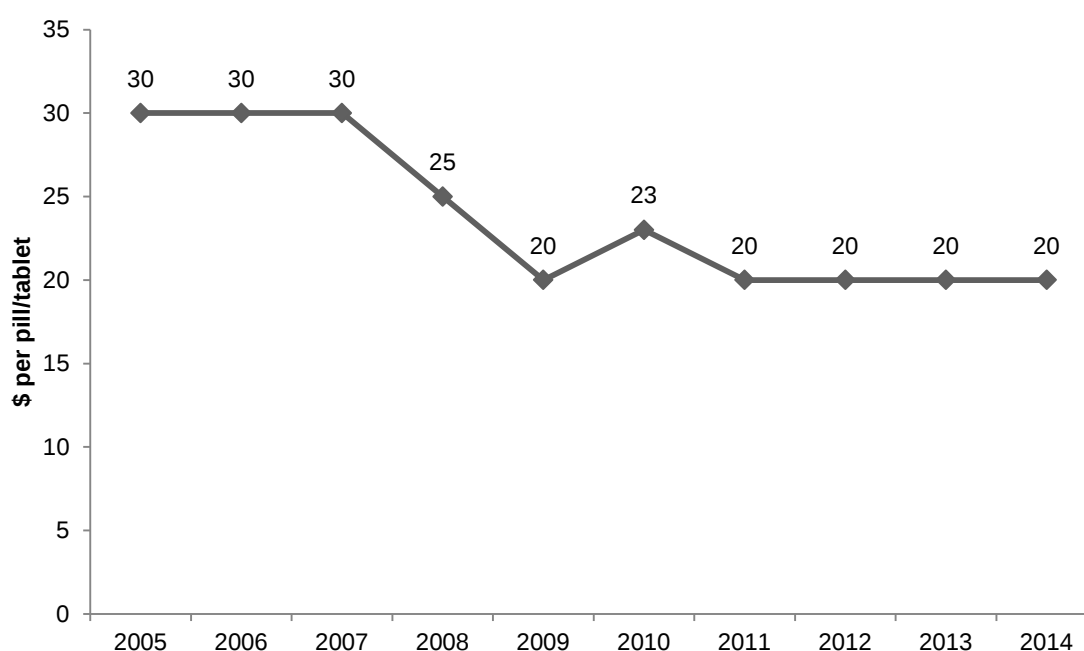
**Table 18: Last price of ecstasy and change in price over the last six months, 2013 & 2014**

|                                                 | 2013                            | 2014                      |                             |
|-------------------------------------------------|---------------------------------|---------------------------|-----------------------------|
|                                                 | Pills, powder, caps and crystal | Pills, powder and caps    | MDMA crystal                |
| <b>Median price of last purchase (range; n)</b> |                                 |                           |                             |
| Tablet/pill                                     | \$20 (\$5–30; 95)               | <b>\$20 (\$8–50; 92)</b>  |                             |
| Cap                                             | \$25 (\$15–40; 11)              | <b>\$25 (\$14–35; 27)</b> |                             |
| Powder (point)                                  | \$50 (\$no range; 1)            | <b>\$25 (\$25–40; 7)</b>  |                             |
| Powder (gram)                                   | \$100 (\$30–180; 4)             | <b>\$80 (\$25–350; 8)</b> |                             |
| Crystal (point)                                 | -                               |                           | <b>\$30 (\$10–110; 8)</b>   |
| Crystal (gram)                                  | \$180 (\$30–250; 3)             |                           | <b>\$200 (\$50–400; 13)</b> |
| <b>Price change in last 6 months (%)</b>        | (n=91)                          | (n=88)                    | (n=21)                      |
| Increasing                                      | 8                               | 8                         | 19                          |
| Stable                                          | 67                              | 75                        | 52                          |
| Decreasing                                      | 21                              | 6                         | 5                           |
| Fluctuating                                     | 4                               | 11                        | 24                          |

**Source:** EDRS participant interviews

Note: 'Don't know' excluded from 2009 onwards

**Figure 11: Trends in the 'last purchase price' of ecstasy per tablet/pill, 2005–2014**



**Source:** EDRS participant interviews

In 2014, participants were asked specifically about the 'current' price of ecstasy 'bulk' purchases, where 'bulk' referred to 10 or more tablets/pills (see Table 19). It was generally reported that purchasing in bulk results in lower prices, with the price per pill starting to decrease when bought in quantities of 10 or more. A purchase of '100' pills costed \$14 per pill compared to \$18 per pill when bought in a 10 pack.

**Table 19: Current median price of ecstasy bought in bulk amounts, 2013–2014**

| Qty of pills | Median price total<br>(range; n) |                            |
|--------------|----------------------------------|----------------------------|
|              | 2013                             | 2014                       |
| <b>1</b>     | 20 (12–45; 98)                   | <b>20 (8–40; 84)</b>       |
| <b>10</b>    | 180 (20–400;83)                  | <b>180 (85–300; 69)</b>    |
| <b>20</b>    | 320 (220–720;29)                 | <b>350 (200–400; 21)</b>   |
| <b>50</b>    | 650 (500–1800; 17)               | <b>725 (400–1000; 16)</b>  |
| <b>100</b>   | 1300 (700–3000;19)               | <b>1400 (500–2000; 22)</b> |

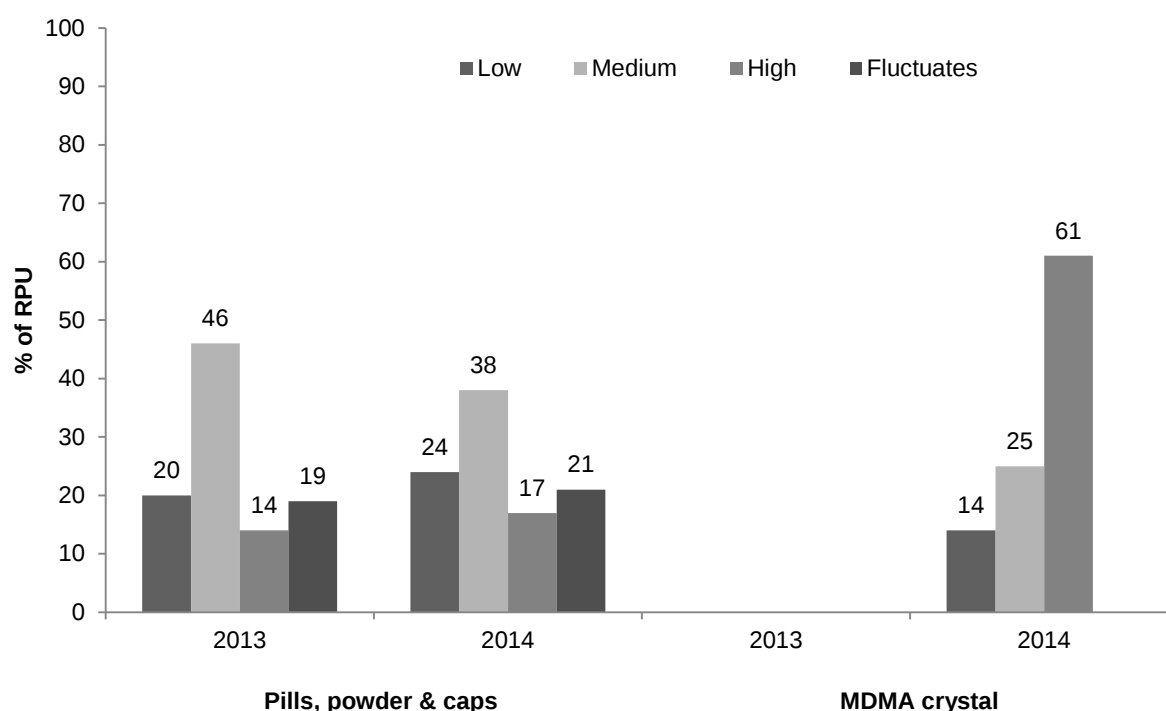
Source: EDRS participant interviews

### 5.1.2 Purity

Figure 12 presents the current purity of ecstasy and Table 20 summarises the changes in purity in the last six months, as perceived by the participants. It is important to bear in mind that it is difficult to gauge the actual quality of the ecstasy that is being consumed, as participant opinions are based on many factors other than the actual purity of the ecstasy they are using. Factors such as length of use, frequency of use, quality of previous ecstasy and the physical and psychological status of the user all impact upon impressions of quality, and, as such, the figures presented are purely perceptions of the participants.

As can be seen in Figure 12, the perceived purity of ecstasy varied considerably across the different forms. More specifically, three-fifths (61%) of those able to comment reported the current purity of MDMA crystals to be high, and the majority (58%) reported that this had remained stable in the six months preceding interview. In contrast, the largest proportion of those answering for ecstasy pills, powder and caps reported current purity to be medium (38%), and this was largely reported to have fluctuated in the six months preceding interview (39%).

**Figure 12: Trends in the perceived purity of ecstasy in the last six months, 2013 & 2014**



Source: EDRS participant interviews

Note: 'Don't know' excluded from 2009 onwards. 2013 data refers to the perceived purity of all forms of ecstasy (pills, powder, caps and MDMA crystal).

**Table 20: Perceived purity of ecstasy tablets/pills and change in purity over the last six months, 2013 & 2014**

|                                    | 2013                            | 2014                   |               |
|------------------------------------|---------------------------------|------------------------|---------------|
|                                    | Pills, powder, caps and crystal | Pills, powder and caps | MDMA crystal  |
| <b>Recent change in purity (%)</b> | <b>(n=93)</b>                   | <b>(n=87)</b>          | <b>(n=24)</b> |
| Increasing                         | 13                              | 9                      | 17            |
| Stable                             | 38                              | 31                     | 58            |
| Decreasing                         | 20                              | 21                     | 17            |
| Fluctuating                        | 29                              | 39                     | 8             |

Source: EDRS participant interviews

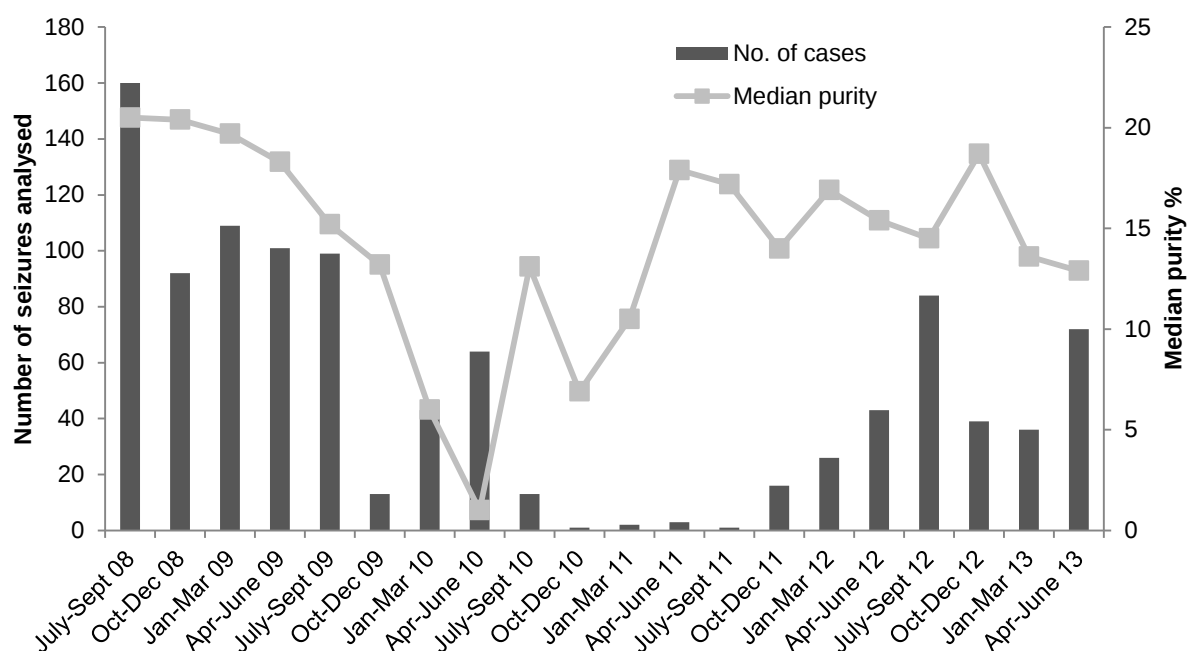
Note: 'Don't know' not included. 2013 data refers to the perceived purity of all forms of ecstasy (pills, powder, caps and MDMA crystal).

The purity data presented in this report are provided by the Australian Crime Commission (ACC). The ACC provide data on state/territory police and Australian Federal Police (AFP) seizure data, including the number and weight of seizures. Since 2000/01, ecstasy seizures have been reported under 'phenethylamines'. Ecstasy belongs to the phenethylamine family of drugs. Other drugs such as 2,5-dimethoxy-4-bromoamphetamine (DOB), MDA, 2,5-dimethoxy-4-methylamphetamine (DOM), 3,4-methylenedioxymethylamphetamine (MDMA), paramethoxyamphetamine (PMA), and 4-methylthioamphetamine (4-MTA) also belong to the phenethylamine family, and seizures of these drugs are included in the seizure data.

The ACC data were unavailable for 2013/14 at the time of publication. As a consequence, the data provided by the ACC relates to the purity data on phenethylamines (including MDMA) seized in SA during the last financial year, 2012/13 (Australian Crime Commission, 2014). Figure 13 shows the number of seizures received and analysed by the state forensic

laboratory (within the quarter depicted) and the median purity per quarter of those seizures, from 2008/09 to 2012/13. The total number of SAPOL phenethylamines seizures analysed from July 2012 to June 2013 was 231, which is an almost three-fold increase from the number of seizures reported in 2011/12 (86). The median purity remained low and stable at 14.3% (compared to 15.7% in 2011/12).

**Figure 13: Number of phenethylamine\* seizures analysed and median purity, 2008/09–2012/13**



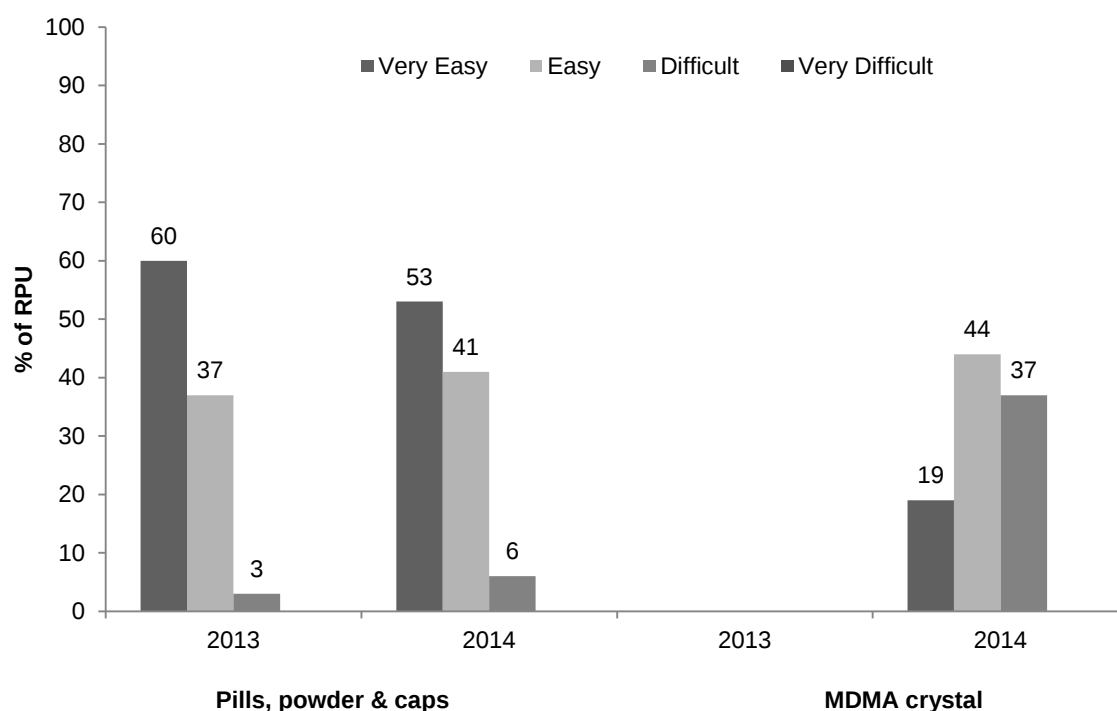
Source: Australian Crime Commission, 2010, 2011, 2012, 2013, 2014

\*Phenethylamines include MDMA ('ecstasy'), MDEA, MDA, PMA and others (see Australian Crime Commission, 2012)

### 5.1.3 Availability

Figure 14 presents the current availability of ecstasy and Table 21 summarises the changes in availability in the last six months, as perceived by participants. As can be seen, the perceived availability of ecstasy varied considerably across the different forms. Although the majority of participants reported that ecstasy was 'very easy' or 'easy' to obtain (94% for pills, powder and caps; 63% for MDMA crystals), over one-third (37%) of those able to answer reported that MDMA crystal was 'difficult' to obtain, compared to only 6% of those answering for ecstasy pill, powder and caps. The availability of ecstasy was largely reported to have remained stable over the preceding six months.

**Figure 14: Trends in availability of ecstasy in the preceding six months, 2013 & 2014**



**Source:** EDRS participant interviews

**Note:** 'Don't know' not included from 2009 onwards. 2013 data refers to the perceived purity of all forms of ecstasy (pills, powder, caps and MDMA crystal), whilst 2014 data separates ecstasy into pills/powder/caps and MDMA crystal.

**Table 21: Availability of ecstasy and change in availability over the last six months, 2013 & 2014**

|                                                    | 2013                                      | 2014                             |                        |
|----------------------------------------------------|-------------------------------------------|----------------------------------|------------------------|
|                                                    | Pills, powder, caps and crystal<br>(n=95) | Pills, powder and caps<br>(n=91) | MDMA crystal<br>(n=25) |
| <b>Change in availability in last 6 months (%)</b> |                                           |                                  |                        |
| More difficult                                     | 6                                         | 10                               | 20                     |
| Stable                                             | 62                                        | 66                               | 40                     |
| Easier                                             | 23                                        | 14                               | 28                     |
| Fluctuates                                         | 9                                         | 10                               | 12                     |

**Source:** EDRS participant interviews

**Note:** 'Don't know' not included. 2013 data refers to the perceived purity of all forms of ecstasy (pills, powder, caps and MDMA crystal).

#### 5.1.4 Supply: purchasing patterns and locations of use

Participants were asked to provide information pertaining to the recent purchase of ecstasy and other drugs. The results of those providing information are presented in Table 22, and they relate to all forms of ecstasy (i.e. pills, powder, caps and crystal). The majority of RPU purchased ecstasy for themselves and others (70%), and this represents a significant increase from 2013 (55%;  $p < 0.05$ ; 95% CI: -0.28 – -0.02). The median number of people that ecstasy was purchased from remained stable, as did the median number of tablets purchased. Just over half (54%) of those who answered reported purchasing ecstasy monthly or less in the preceding six months, and one-third (34%) reported purchasing ecstasy fortnightly or less in that time frame: both of which were non-significant increases from 2013.

**Table 22: Patterns of purchasing ecstasy in the last six months, 2013 & 2014**

|                                                        | 2013<br>(N=100) | 2014<br>(N=100) |
|--------------------------------------------------------|-----------------|-----------------|
| <b>Median no. of people purchased from (range)</b>     | 4 (0–17)        | 3 (1–25)        |
| <b>Purchased for (%)</b>                               | (n=98)          | (n=98)          |
| Self only                                              | 40              | 28              |
| Self and others                                        | 55              | 70*             |
| Others only                                            | 2               | 2               |
| Did not purchase in last 6 months                      | 3               | 0               |
| <b>No. of times purchased in the last 6 months (%)</b> | (n=95)          | (n=97)          |
| 1–6                                                    | 48              | 54              |
| 7–12                                                   | 28              | 34              |
| 13–24                                                  | 21              | 11              |
| 25 +                                                   | 2               | 1               |
| <b>Median no. of ecstasy tablets purchased (range)</b> | 4 (0.5–60)      | 7 (1–200)       |

**Source:** EDRS participant interviews

\* $p < 0.05$

Ecstasy was purchased from a range of sources and from a variety of public and private locations, with the most common being from friends, followed by known dealers. The largest proportion of participants reported scoring at a friend's home (see Table 23).

**Table 23: Trend in the source and venue of purchase of ecstasy for participants in the last 6 months, 2013 & 2014**

|                                             | 2013                            | 2014                   |              |
|---------------------------------------------|---------------------------------|------------------------|--------------|
|                                             | Pills, powder, caps and crystal | Pills, powder and caps | MDMA crystal |
| <b>Bought ecstasy from:</b>                 | (n=99)                          | (n=97)                 | (n=29)       |
| Friends                                     | 69                              | 58                     | 59           |
| Known dealers                               | 14                              | 23                     | 21           |
| Workmates                                   | 2                               | 3                      | 0            |
| Acquaintances                               | 7                               | 6                      | 3            |
| Unknown dealers                             | 3                               | 4                      | 0            |
| Street dealers                              | 0                               | 2                      | 0            |
| Mobile dealer                               | 0                               | 1                      | 0            |
| Online                                      | 1                               | 2                      | 14           |
| Other                                       | 3                               | 0                      | 0            |
| <b>Venues normally scored [ecstasy] at?</b> | (n=99)                          | (n=97)                 | (n=29)       |
| Own home                                    | 11                              | 10                     | 0            |
| Dealer's home                               | 9                               | 12                     | 14           |
| Friend's home                               | 36                              | 25                     | 62           |
| Raves/dance parties                         | 1                               | 2                      | 0            |
| Nightclubs                                  | 18                              | 22                     | 3            |
| Pubs                                        | 4                               | 3                      | 0            |
| Agreed public location                      | 7                               | 14                     | 7            |
| Private party                               | 5                               | 3                      | 0            |
| Street                                      | 2                               | 1                      | 0            |
| Work                                        | 1                               | 0                      | 0            |
| Live music event                            | 0                               | 5                      | 3            |
| Online                                      | 0                               | 1                      | 7            |

**Source:** EDRS participant interviews

Note: 2013 data refers to the perceived purity of all forms of ecstasy (pills, powder, caps and MDMA crystal).

### KE Comments

- ◆ KE largely reported that the ecstasy market had remained stable over the preceding 12 months. There were, however, two KE who reported an increase in the number of MDMA cases/seizures in that time frame
- ◆ Ecstasy was reported to cost \$10–15 for a pill.
- ◆ The purity of ecstasy was reported to be quite variable, fluctuating from 30–240mg of MDMA in a pill – with an average pill containing about 100–120mg of MDMA. It was speculated that the high purity pills (i.e. 240mg MDMA) were most probably imported via Silk Road.
- ◆ The most common drugs detected in seized 'ecstasy' pills over the preceding 12 months (excluding MDMA) were 25I-NBOMe and 25C-NBOMe. Other common analogue drugs that were detected include PMA, 2C-x, MDPV, 6-APB and levamisole.
- ◆ Ecstasy was reported to come mainly in pill form; however, there were also some reports of MDMA crystal being seized. MDMA crystal was reported to look almost identical to crystal methamphetamine, with the colour being the only distinguishing feature. That is, MDMA crystals that were seized were reported to be a light brown/clear colour, whilst crystal methamphetamine was clear/translucent.

## 5.2 Methamphetamine

### Key Findings

- The reported last median price of a point of powder, base and crystal methamphetamine remained relatively stable at \$50, \$100 and \$90 respectively.
- Reports regarding the purity of methamphetamine were mixed. Crystal was generally viewed as having the highest purity of the three forms of methamphetamine.
- Overall, all forms of methamphetamine were considered to be easy or very easy to obtain.
- The largest proportion of participants reported that they purchased all forms of methamphetamine from friends.
- Only seven participants were able to report on the PPA of powder and base methamphetamine. These findings must therefore be viewed with caution.

### 5.2.1 Price

Not all participants were able to comment on the price of all three, or any, of the forms of methamphetamine. Table 24 presents the prices of methamphetamine and Table 25 presents whether these had changed over the six months preceding interview.

The reported last median price of a point of powder, base and crystal all remained relatively stable in 2014 at \$50, \$100 and \$90 respectively (Table 24). Across all forms of methamphetamine, the largest proportion of those who were able to comment reported that the price had remained stable in the six months preceding interview (see Table 25).

**Table 24: Median price of last purchase of the main forms of methamphetamine, 2013 & 2014**

| Amount                                 | Median price per amount<br>\$ (range; n) |                      |                    |                     |                      |                      |
|----------------------------------------|------------------------------------------|----------------------|--------------------|---------------------|----------------------|----------------------|
|                                        | Powder                                   |                      | Base               |                     | Crystal              |                      |
|                                        | 2013                                     | 2014                 | 2013               | 2014                | 2013                 | 2014                 |
| <b>Point</b><br>Price at last purchase | 100^<br>(50–100; 8)                      | 50^<br>(no range; 1) | 90^<br>(50–100; 6) | 100^<br>(70–100; 5) | 100<br>(30–100; 19)  | 90<br>(50–100; 12)   |
| <b>Gram</b><br>Price at last purchase  | 280^<br>(100–750; 3)                     | -                    | -                  | -                   | 450^<br>(250–650; 2) | 450^<br>(447–500; 3) |

Source: EDRS participant interviews

^ Small numbers reported (n<10)

**Table 25: Changes in price over the last six months, 2013 & 2014**

| Change in price | Powder         |                             | Base                        |                             | Crystal        |                |
|-----------------|----------------|-----------------------------|-----------------------------|-----------------------------|----------------|----------------|
|                 | 2013<br>(n=10) | 2014<br>(n=3 <sup>^</sup> ) | 2013<br>(n=5 <sup>^</sup> ) | 2014<br>(n=5 <sup>^</sup> ) | 2013<br>(n=21) | 2014<br>(n=15) |
| Increasing      | 0              | 0                           | 0                           | 0                           | 14             | 27             |
| Stable          | 100            | 100                         | 100                         | 100                         | 67             | 40             |
| Decreasing      | 0              | 0                           | 0                           | 0                           | 10             | 27             |
| Fluctuating     | 0              | 0                           | 0                           | 0                           | 10             | 7              |

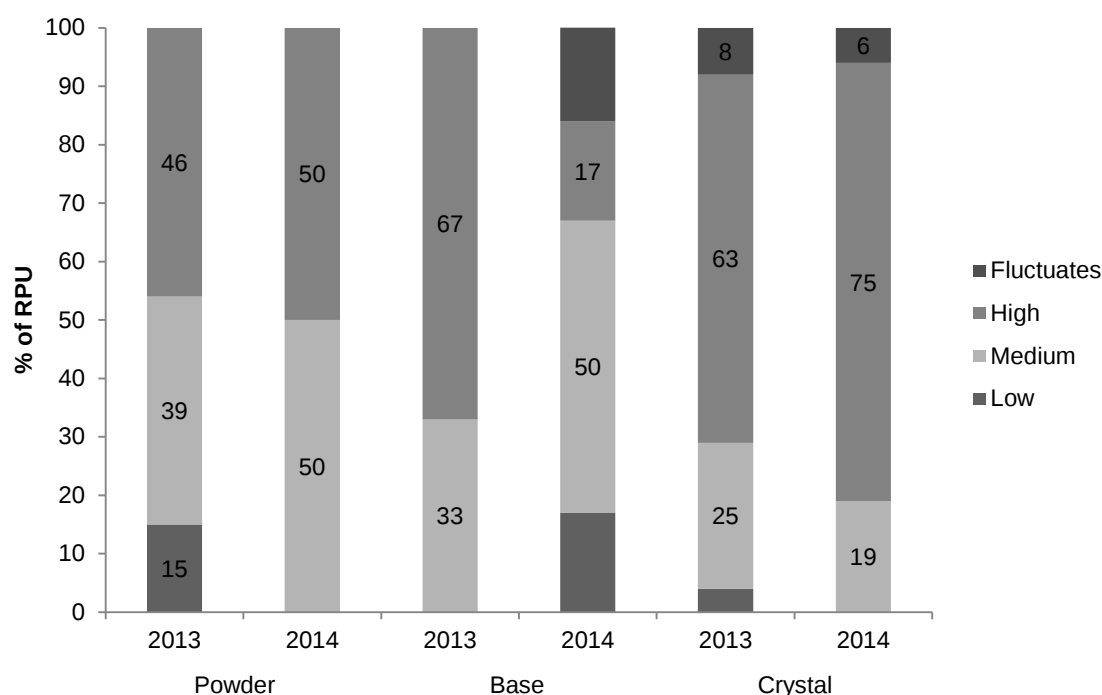
**Source:** EDRS participant interviews

Note: Excludes 'don't know'

<sup>^</sup> Small numbers reported (n<10)

## 5.2.2 Purity

As can be seen in Figure 15, the perceived purity of methamphetamine varied considerably across the different forms. More specifically, three-quarters (75%) of those able to comment reported the current purity of crystal methamphetamine to be high, 50% reported that the purity of base was medium, whilst equal proportions reported that the purity of methamphetamine powder was 'medium' and 'high'. It should be noted that only six participants were able to report on the perceived purity of powder and base methamphetamine. Across all forms of methamphetamine, the greatest proportion of participants reported that the purity had remained stable over the preceding six months (see Table 26).

**Figure 15: Purity of the main forms of methamphetamine over the last six months, 2013 & 2014**

**Source:** EDRS participant interviews

Note: 'Don't know' not included.

**Table 26: Changes in purity of the main forms of methamphetamine over the last six months, 2013 & 2014**

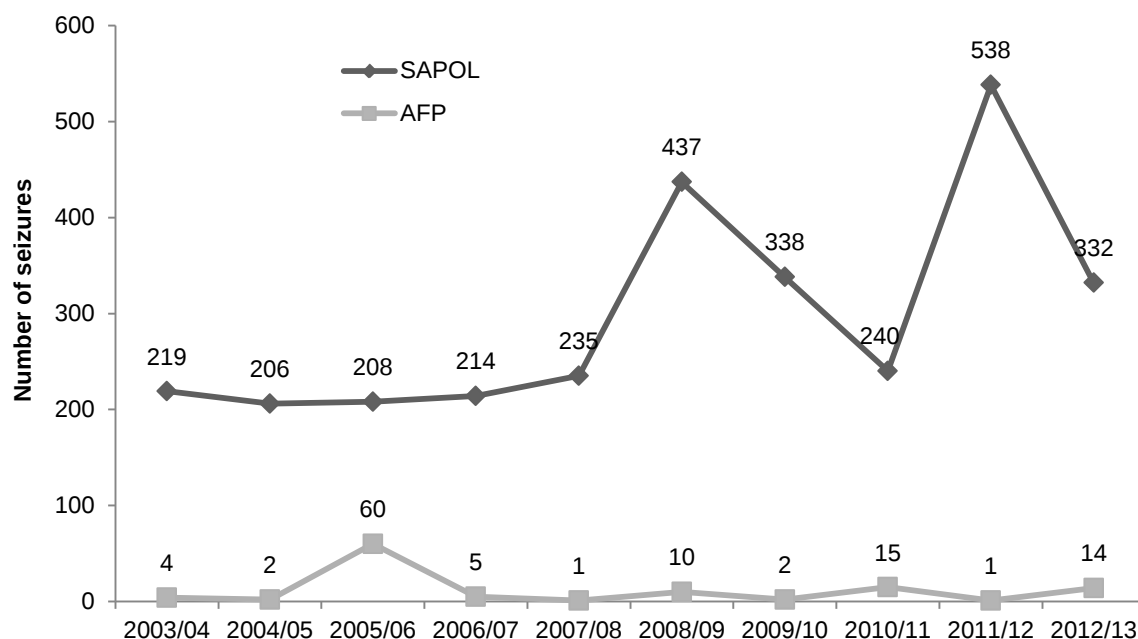
| Change in price | Powder         |               | Base          |               | Crystal        |                |
|-----------------|----------------|---------------|---------------|---------------|----------------|----------------|
|                 | 2013<br>(n=11) | 2014<br>(n=2) | 2013<br>(n=5) | 2014<br>(n=6) | 2013<br>(n=22) | 2014<br>(n=14) |
| Increasing      | 9              | 0             | 0             | 0             | 14             | 14             |
| Stable          | 55             | 100           | 80            | 50            | 45             | 43             |
| Decreasing      | 0              | 0             | 20            | 17            | 14             | 7              |
| Fluctuating     | 36             | 0             | 0             | 33            | 27             | 36             |

Source: EDRS participant interviews

Note: 'Don't know' not included

The ACC data were unavailable for 2013/14 at the time of publication. As a consequence, data provided by the ACC relates to the data on seizures and purity levels during the last financial year, 2012/13 (Australian Crime Commission, 2014). Figure 16 shows the number of seizures for amphetamine-type stimulants, by SAPOL and the AFP. As can be seen, SAPOL seizures declined sharply in 2012/13, although it is important to note that the weight of the seizures increased (22,281 grams in 2012/13 versus 13,190 grams in 2011/12). Inversely, there was an increase in the number of AFP seizures reported in 2012/13, with the weight of the seizures also increasing (31,078 grams in 2012/13 versus 965 grams in 2011/12).

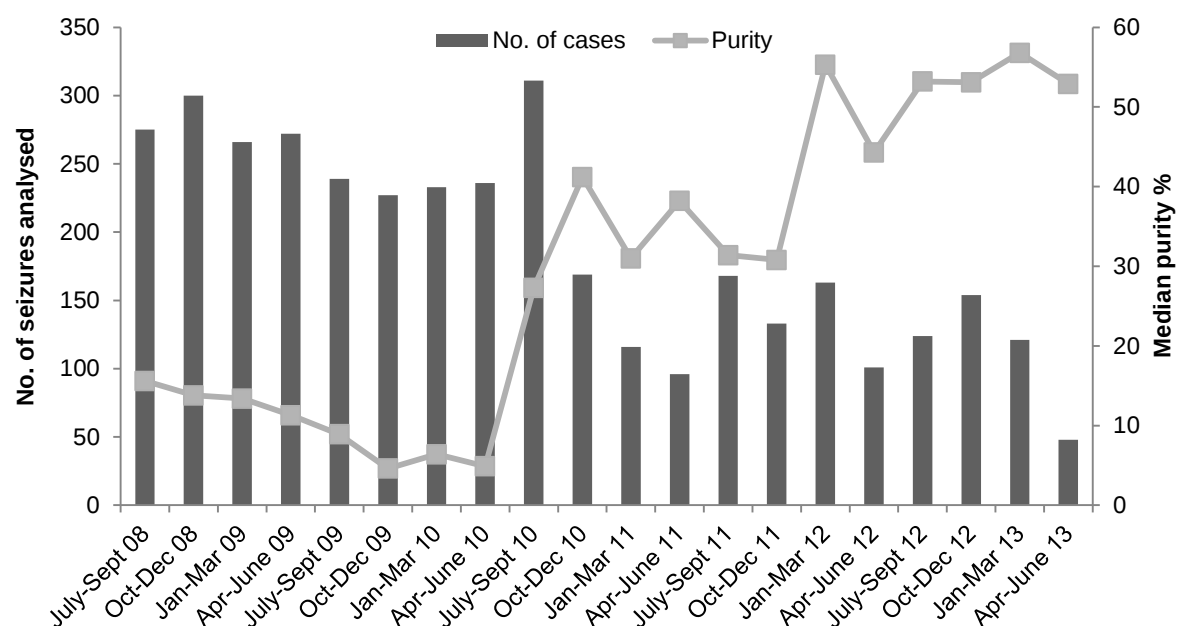
**Figure 16: Number of seizures: amphetamine-type stimulants, 2003/04–2012/13**



Source: Australian Crime Commission, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014

Figure 17 shows the number of methamphetamine seizures received and analysed by the state forensic laboratory (within the quarter depicted) and the median purity per quarter of those seizures from 2008/09 to 2012/13. The total number of SAPOL methamphetamine seizures analysed from July 2012 to June 2013 was 447, which was a slight decrease from the 2011/12 financial year (565). However, the overall median purity of the seizures analysed increased slightly, from 43.3% in 2011/12 to 54.6%. The majority of seizures analysed were more than 2 grams.

**Figure 17: Median purity of methylamphetamine, 2008/09–2012/13**

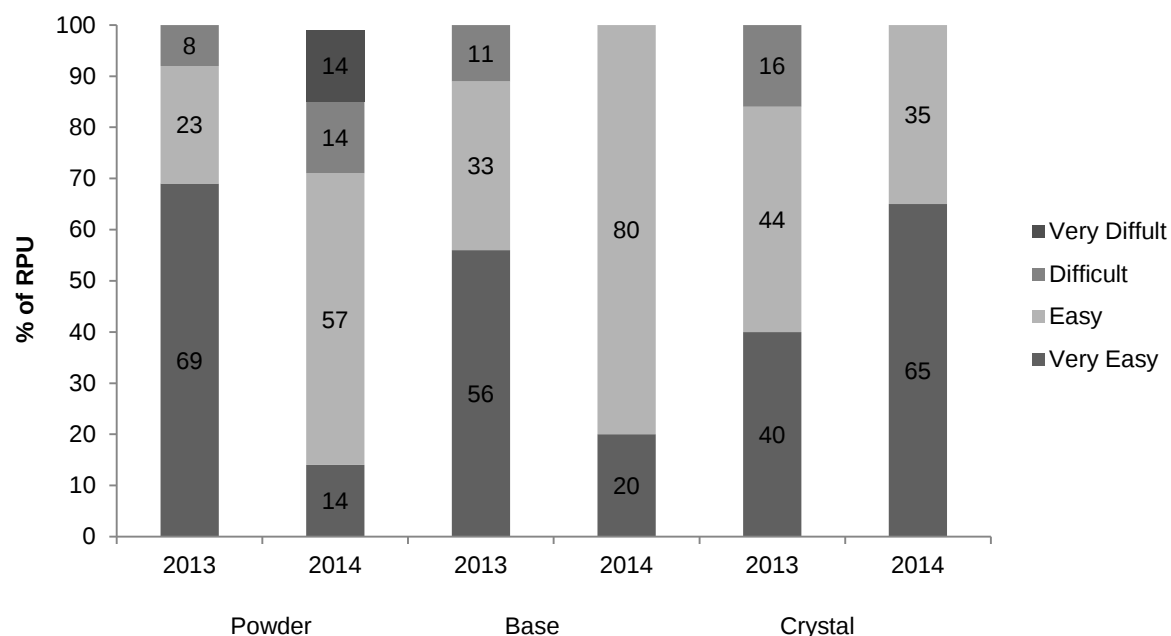


**Source:** Australian Crime Commission, 2010, 2011, 2012, 2013, 2014

### 5.2.3 Availability

Overall, all three forms of methamphetamine were considered to be ‘easy’ or ‘very easy’ to obtain by the majority of participants (see Figure 18). Twenty-eight percent of those able to answer reported that methamphetamine powder was ‘difficult’ or ‘very difficult’ to obtain. The majority of participants reported the availability of all forms of methamphetamine as stable in the last six months (see Table 27). It should be noted that few participants were able to report on the perceived purity of powder and base methamphetamine ( $n < 10$ ).

**Figure 18: Availability of the main forms of methamphetamine over the last six months, 2013 & 2014**



Source: EDRS participant interviews

**Table 27: Change in availability of the main forms of methamphetamine over the last six months, 2013 & 2014**

| Change in availability in last 6 months (%) | Powder         |               | Base          |               | Crystal        |                |
|---------------------------------------------|----------------|---------------|---------------|---------------|----------------|----------------|
|                                             | 2013<br>(n=13) | 2014<br>(n=5) | 2013<br>(n=8) | 2014<br>(n=5) | 2013<br>(n=23) | 2014<br>(n=14) |
| More difficult                              | 0              | 20            | 0             | 20            | 13             | 0              |
| Stable                                      | 100            | 60            | 100           | 80            | 70             | 79             |
| Easier                                      | 0              | 20            | 0             | 0             | 13             | 14             |
| Fluctuates                                  | 0              | 0             | 0             | 0             | 4              | 7              |

Source: EDRS participant interviews

Note: 'Don't know' not included

#### 5.2.4 Supply: purchasing patterns and locations of use

When asked where they had bought the different forms of methamphetamine, participants provided similar profiles for each of the three forms (see Table 28). The largest proportion of participants reported that they purchased powder, base and crystal methamphetamine from friends, and it was most commonly obtained at a private home.

**Table 28: Last person and source venue where participants purchased methamphetamine, 2014**

| % commented                                                  | Powder<br>(n=7 <sup>^</sup> ) | Base<br>(n=7 <sup>^</sup> ) | Crystal<br>(n=19) |
|--------------------------------------------------------------|-------------------------------|-----------------------------|-------------------|
| Used, not scored                                             | 14                            | 14                          | 5                 |
| <b>Who have you bought [meth] from in the last 6 months?</b> |                               |                             |                   |
| Friends                                                      | 57                            | 29                          | 58                |
| Known dealers                                                | 14                            | 14                          | 16                |
| Acquaintances                                                | 14                            | 14                          | 5                 |
| Unknown dealers                                              | 0                             | 14                          | 5                 |
| Relatives                                                    | 0                             | 0                           | 5                 |
| Online                                                       | 0                             | 0                           | 5                 |
| <b>What venues do you normally score [meth] at?</b>          |                               |                             |                   |
| Own home                                                     | 29                            | 14                          | 21                |
| Dealer's home                                                | 0                             | 0                           | 16                |
| Friend's home                                                | 29                            | 43                          | 37                |
| Nightclub                                                    | 0                             | 0                           | 0                 |
| Pub                                                          | 14                            | 0                           | 5                 |
| Private party                                                | 0                             | 14                          | 0                 |
| Street                                                       | 0                             | 0                           | 0                 |
| Raves                                                        | 0                             | 0                           | 0                 |
| Live music event                                             | 14                            | 0                           | 0                 |
| Agreed public location                                       | 0                             | 0                           | 5                 |
| Acquaintance's home                                          | 0                             | 0                           | 5                 |
| Online                                                       | 0                             | 0                           | 5                 |

**Source:** EDRS participant interviews

<sup>^</sup>n<10

### KE Comments

- It was generally reported that the price of methamphetamine was \$100 for a point (range: \$50 for those 'in the know' to \$100).
- Reports regarding the purity of methamphetamine were mixed: one KE reported that the purity of SAPOL methamphetamine seizures had increased in the 2012/13 financial year, whilst others reported that it had remained stable or fluctuated.
- Similarly, reports regarding the availability of methamphetamine were mixed. Several KE reported that availability had remained stable over the preceding 12 months, whilst others believed that it had become easier to obtain – thus leading to an increase in use.
- In regards to the manufacture of methylamphetamine, one KE noted that there had been a decline in the number of clandestine laboratories. However, it was believed that this decline was amongst small scale labs (for personal use), whilst the number of large scale labs had remained stable. That is, rather than people cooking methylamphetamine for themselves and friends, it was hypothesised that people have shifted towards buying it on dark web marketplaces (e.g. Silk Road).

## 5.3 Cocaine

### Key Findings

- ➔ In 2014, the median price of cocaine decreased slightly to \$300 per gram.
- ➔ Reports regarding the current purity of cocaine were mixed, with similar proportions of RPU reporting that current purity was low, medium or high.
- ➔ The current availability of cocaine was largely perceived as 'easy', with the majority of participants reporting that this had remained stable in the six months preceding interview.
- ➔ Among those who could comment, most purchased cocaine from a friend and at a private residence (friend's home).

### 5.3.1 Price

Cocaine was most commonly purchased in grams and was purchased for a median of \$300 (range \$100–500). The majority of participants who commented on the price considered it to have remained stable in the last six months (71%), whilst 18% believed it had decreased.

**Table 29: Price of cocaine, 2013 & 2014**

|                                       | 2013                | 2014                |
|---------------------------------------|---------------------|---------------------|
| <b>Median price of last purchase</b>  |                     |                     |
| <b>Gram (range; n)</b>                | \$325 (287–350; 19) | \$300 (100–500; 20) |
| <b>Price change in last month (%)</b> | (n=22)              | (n=28)              |
| Increasing                            | 14                  | 7                   |
| Stable                                | 86                  | 71                  |
| Decreasing                            | 0                   | 18                  |
| Fluctuating                           | 0                   | 4                   |

**Source:** EDRS participant interviews

Note: 'Don't know' excluded from analysis

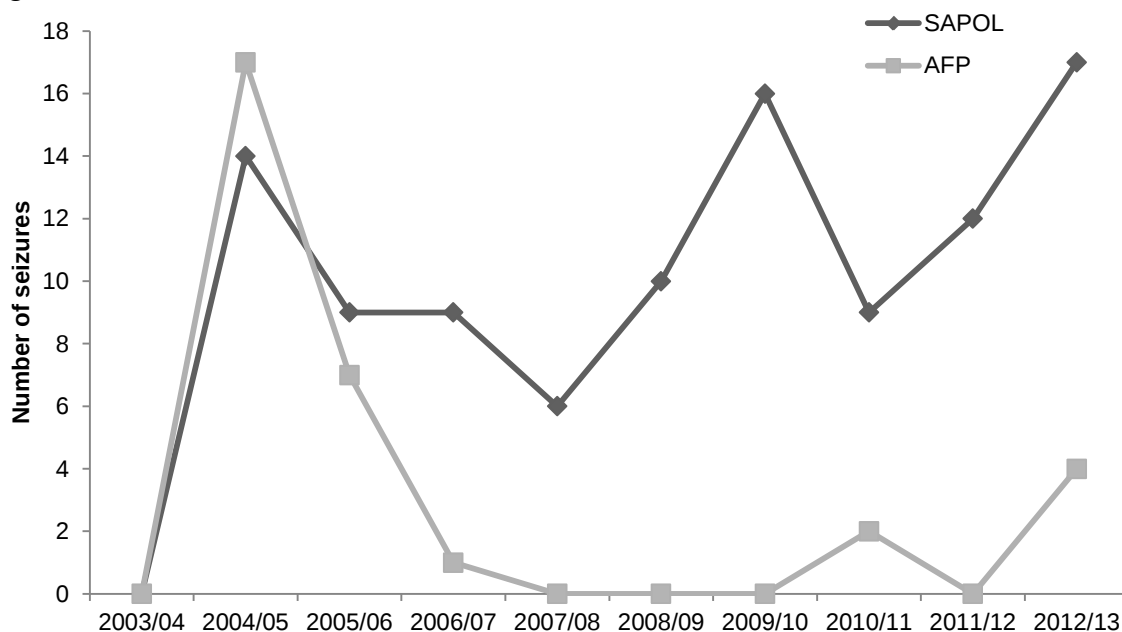
### 5.3.2 Purity

Participants were asked what the current purity or strength of cocaine was, and whether the purity had changed in the six months preceding interview. Reports regarding cocaine purity were extremely mixed. Of those able to answer (n=34), one-third (35%) reported that current purity of cocaine was medium, 29% reported it was low, 24% reported it was high and 12% reported that it fluctuated.

The largest proportion of participants who commented (42%) reported that the purity of cocaine had remained stable over the past six months, whilst 27% believed it had fluctuated, 27% reported it had decreased and 4% reported that it had increased.

The ACC data were unavailable for 2012/13 at the time of publication. As a consequence, data provided by the ACC relates to the data on seizures and purity levels during the last financial year, 2012/13 (Australian Crime Commission, 2014). Figure 19 shows the number of seizures for cocaine, by SAPOL and the AFP. As can be seen, SAPOL seizures increased slightly in 2012/13 (17 versus 12 in 2011/12), continuing an upward trend that has been observed over the past couple of years. There was also a slight increase in the number of seizures made by the AFP (4 versus 0 in 2011/12).

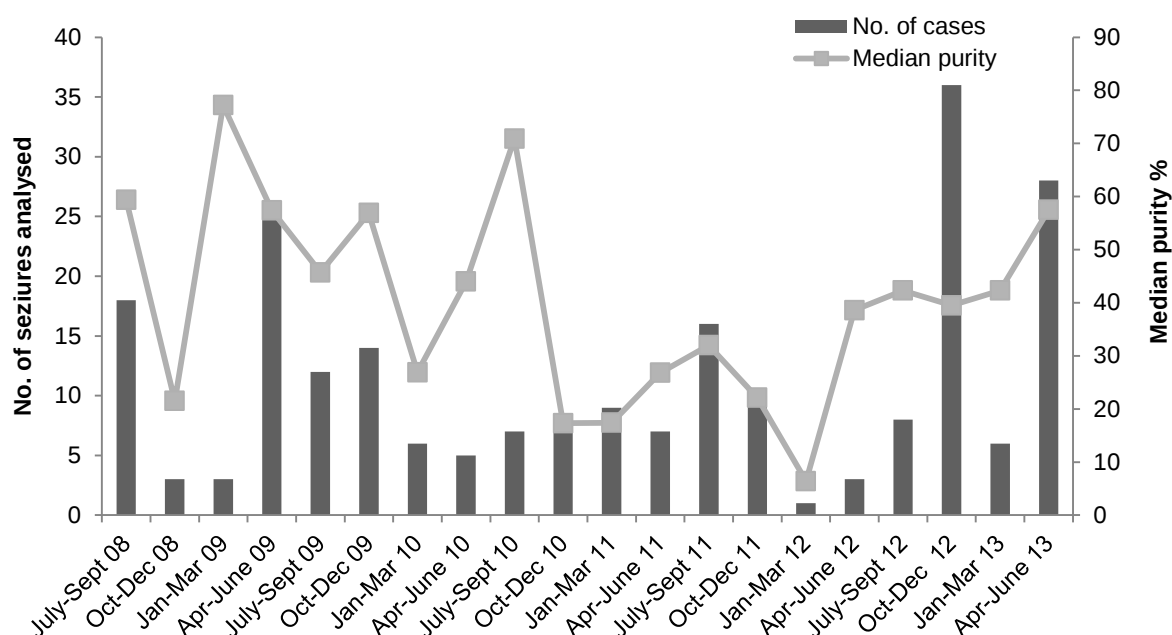
**Figure 19: Number of cocaine seizures, 2003/04–2012/13**



**Source:** Australian Crime Commission, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014

Figure 20 shows the number of cocaine seizures received and analysed by the state forensic laboratory (within the quarter depicted) and the median purity per quarter of those seizures from 2008/09 to 2012/13. The total number of SAPOL cocaine seizures analysed from July 2012 to June 2013 was 78, which was more than double the number of seizures reported in the 2011/12 financial year (30). The overall median purity of the seizures analysed was 57%, which also a substantial increase from the median purity reported in 2011/12 (32%). The majority of seizures analysed were more than 2 grams.

**Figure 20: Number of cocaine seizures analysed and median purity, 2008/09–2012/13**



**Source:** Australian Crime Commission, 2010, 2011, 2012, 2013, 2014

### 5.3.3 Availability

Reports regarding the current availability of cocaine were quite mixed. Of those able to answer, half (50%) reported that cocaine was 'easy' to obtain, whilst 38% reported that it was 'difficult' to obtain. The majority (66%) of participants considered the ease of access to cocaine to have remained stable in the six months preceding interview.

**Table 30: Availability of cocaine and change in availability over the last six months, 2013 & 2014**

|                                                    | 2013<br>(n=28) | 2014<br>(n=34) |
|----------------------------------------------------|----------------|----------------|
| <b>Current availability (%)</b>                    |                |                |
| Very easy                                          | 21             | 9              |
| Easy                                               | 39             | 50             |
| Difficult                                          | 29             | 38             |
| Very difficult                                     | 11             | 3              |
| <b>Change in availability in last 6 months (%)</b> |                |                |
|                                                    | (n=22)         | (n=29)         |
| More difficult                                     | 9              | 3              |
| Stable                                             | 77             | 66             |
| Easier                                             | 9              | 17             |
| Fluctuates                                         | 5              | 14             |

**Source:** EDRS participant interviews

Note: 'Don't know' not included

Cocaine was most commonly acquired through friends (57%), followed by a known dealer (21%). Small numbers (n<5) reported sourcing cocaine through acquaintances, workmates, street dealers or online. It was most commonly obtained in a friend's home (36%), followed by a pub (18%), dealer's home (14%) or home delivery (11%) (see Table 31).

**Table 31: Last person and source venue where participants purchased cocaine, 2014**

|                                                               | (n=28)<br>% |
|---------------------------------------------------------------|-------------|
| <b>Who have you bought cocaine from in the last 6 months?</b> |             |
| Friends                                                       | 57          |
| Known dealers                                                 | 21          |
| Online                                                        | 7           |
| Workmates                                                     | 7           |
| Acquaintances                                                 | 4           |
| Street dealer                                                 | 4           |
| <b>What venues do you normally score cocaine at?</b>          |             |
| Own home                                                      | 11          |
| Dealer's home                                                 | 14          |
| Friend's home                                                 | 36          |
| Nightclub                                                     | 7           |
| Pubs                                                          | 18          |
| Agreed public location                                        | 4           |
| Work                                                          | 7           |
| Online                                                        | 4           |

**Source:** EDRS participant interviews

#### KE Comments

- Most of the KE reported that they were seeing very little cocaine use and as such were unable to provide information on its current price, purity or availability (PPA). Of those who were able to comment, it was reported that the purity of cocaine had fluctuated over the past year and that it had become easier to obtain.

## 5.4 LSD

### Key Findings

- The median price of LSD remained stable at \$15 for a tab.
- The purity of LSD was perceived as high and stable by the majority of participants; reports regarding availability were mixed.
- Participants generally bought LSD from friends and obtained it from a friend's home or at an agreed public location.

### 5.4.1 Price

In 2014, the median last price paid for a tab of LSD was \$15 (range \$1-50; n=27), stable from 2013 (\$15; range=\$8-25; n=21). The majority of those participants able to comment reported that the price of LSD had been stable in the previous six months (78%); the remaining participants believed the price had increased (11%) or fluctuated (11%).

### 5.4.2 Purity

Table 32 summarises the current purity of LSD and the changes in purity in the last six months, as perceived by the participants in 2014. Half (50%) of the participants who were able to comment reported that the current purity of LSD was high, and the majority (58%) perceived that purity had remained stable in the six months prior to interview.

**Table 32: Purity of LSD and change in purity over the last six months, 2013 & 2014**

|                                           | 2013<br>(n=25) | 2014<br>(n=30) |
|-------------------------------------------|----------------|----------------|
| <b>Current purity (%)</b>                 |                |                |
| Low                                       | 0              | 3              |
| Medium                                    | 24             | 37             |
| High                                      | 64             | 50             |
| Fluctuates                                | 12             | 10             |
| <b>Change purity in last 6 months (%)</b> | (n=20)         | (n=24)         |
| Increasing                                | 15             | 8              |
| Stable                                    | 70             | 58             |
| Decreasing                                | 5              | 17             |
| Fluctuating                               | 10             | 17             |

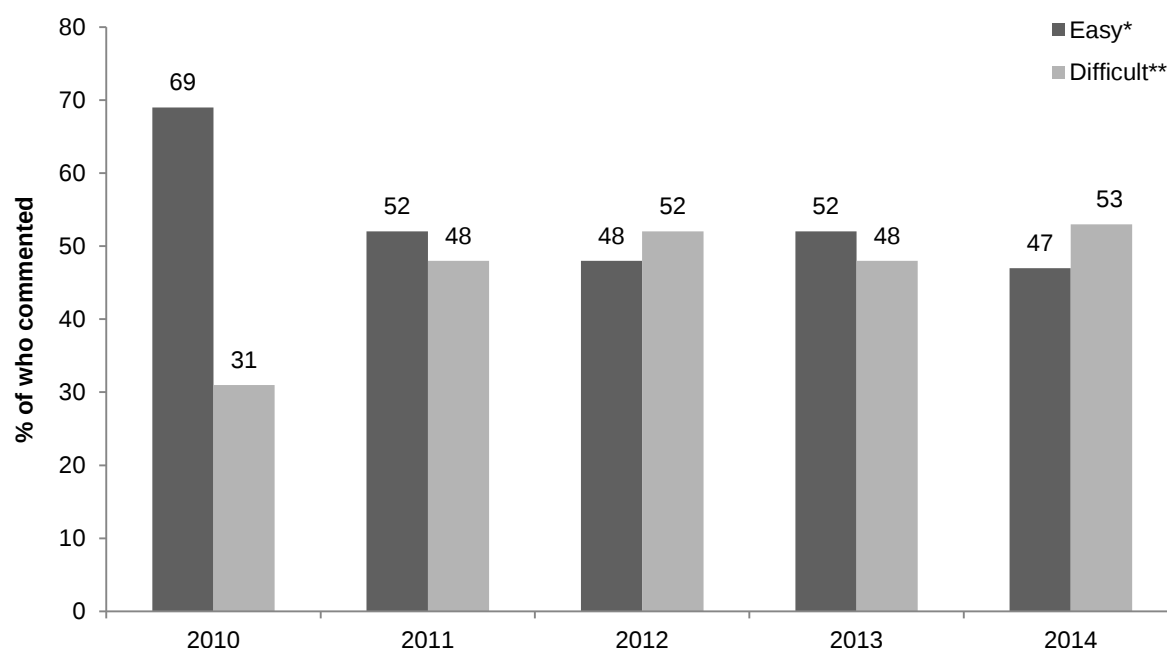
Source: EDRS participant interviews

Note: 'Don't know' not included

### 5.4.3 Availability

Reports regarding the availability of LSD were mixed: of those able to answer, 53% reported that it was 'difficult' or 'very difficult' to purchase LSD, whilst 47% reported that it was 'easy' or 'very easy' to obtain (see Figure 21). Fifty-seven percent of those able to answer reported that the availability of LSD had been stable in the previous six months, 21% reported that it had become easier to obtain, 14% believed it had become more difficult to obtain and 7% reported that availability had fluctuated over the preceding six months.

**Figure 21: Trends in availability of LSD, 2010–2014**



**Source:** EDRS participant interviews

\*Data for 'easy' contains the collapsed categories 'very easy' and 'easy'

\*\*Data for 'difficult' is the collapsed categories 'difficult' and 'very difficult'

Amongst those able to comment, the largest proportion of REU reported that they had bought LSD from friends (50%) and that they had 'scored' at their friend's home (29%) or an agreed public location (25%) (see Table 33).

**Table 33: Usual person and source venue where participants purchased LSD, 2014**

|                                                        | % of participants |
|--------------------------------------------------------|-------------------|
| <b>Who have you got LSD from in the last 6 months?</b> | <b>(n=28)</b>     |
| Friends                                                | 50                |
| Known dealers                                          | 14                |
| Online                                                 | 14                |
| Acquaintances                                          | 4                 |
| Workmates                                              | 4                 |
| Unknown dealers                                        | 7                 |
| Street dealers                                         | 4                 |
| Mobile dealer                                          | 4                 |
| <b>What venues do you normally score LSD at?</b>       | <b>(n=28)</b>     |
| Own home                                               | 7                 |
| Friend's home                                          | 29                |
| Dealer's home                                          | 14                |
| Work                                                   | 4                 |
| Live music event                                       | 14                |
| Agreed public location                                 | 25                |
| Online                                                 | 7                 |

**Source:** EDRS participant interviews

### KE Comments

- Most KE reported that they were seeing very little LSD use and as such were unable to provide information on its current PPA. Of those who were able to comment, it was thought that LSD and 'LSD-type substances' (e.g. NBOMe) may have become more accessible due to dark web marketplaces such as Silk Road.

## 5.5 Cannabis

### Key Findings

- The price reported for hydro/bush remained stable at \$25 for a bag.
- The purity of hydro was reported as high and bush as medium, with the purity of both types of cannabis perceived as stable in the previous six months.
- Availability was reported as easy or very easy, although there was a significant decrease in the proportion of REU who reported that bush was very easy to obtain.

The following sections refer to a 'bag' as a standard measure (particular to the South Australian cannabis market). A detailed investigation of the weight/content of a bag of cannabis was undertaken in 2002 (Longo et al., 2003). Briefly, in the 2002 survey, 33 participants (people who inject drugs) gave a single value of the average weight of cannabis bags sold in SA, with a median of two grams and a mean of 2.5 grams. A further 19 participants gave both a lower and upper weight range for cannabis bags. The median lower range was two grams (mean 2.1 grams) and the median upper range was three grams (mean 2.9 grams). It can be understood, therefore, that the amount of cannabis in a 'bag' may fluctuate, but that a 'bag' in SA generally conveys a weight of cannabis between two and three grams.

In 2014, participants completing this section were also asked if they were able to differentiate between hydro and bush cannabis in terms of price, potency and availability. The majority (70%) of the SA sample reported that they were able to distinguish between the two forms.

### 5.5.1 Price

The reported last median purchase price (by those able to comment) for a 'bag' of hydro (n=36) and bush cannabis (n=35) was \$25 (range=\$20–25 for hydro and \$15–50 for bush). The median purchase prices reported for an ounce of hydro (n=32) and bush (n=26) were also the same, at \$220 an ounce (range=\$40–260 for hydro and \$150–250 for bush). These were similar to the prices reported in 2013.

The majority of participants (74%, 40 out of 54 participants) who were able to comment reported that the price of hydro had remained stable, whilst the remaining participants reported that it had increased (17%), fluctuated (7%) or decreased (2%) in the six months prior to interview. The majority of participants able to comment on the price of bush also reported that the price had remained stable (61%, 31 out of 51 participants), whilst 18% reported that it had increased, 14% reported it had fluctuated and 8% reported that the price had decreased in the last six months.

### 5.5.2 Purity

Table 34 and Table 35 summarise the current purity of hydro and bush cannabis and the changes in the potency of cannabis over the last six months, according to participant reports. In 2014, the purity of hydro and bush cannabis was reported as high or medium by the majority of participants able to comment (hydro 89%; bush 85%). The majority of participants able to comment reported that the purity of hydro (62%) and bush cannabis (52%) was stable in the last six months.

**Table 34: Purity of hydro and bush cannabis over the last six months, 2013 & 2014**

|            | % Able to answer |                |                  |                |
|------------|------------------|----------------|------------------|----------------|
|            | 2013             |                | 2014             |                |
|            | Hydro<br>(n= 55) | Bush<br>(n=56) | Hydro<br>(n= 56) | Bush<br>(n=54) |
| High       | 58               | 43             | 48               | 37             |
| Medium     | 29               | 45             | 41               | 48             |
| Low        | 7                | 5              | 0                | 6              |
| Fluctuates | 6                | 7              | 11               | 9              |

**Source:** EDRS participant interviews

Note: 'Don't know' not included

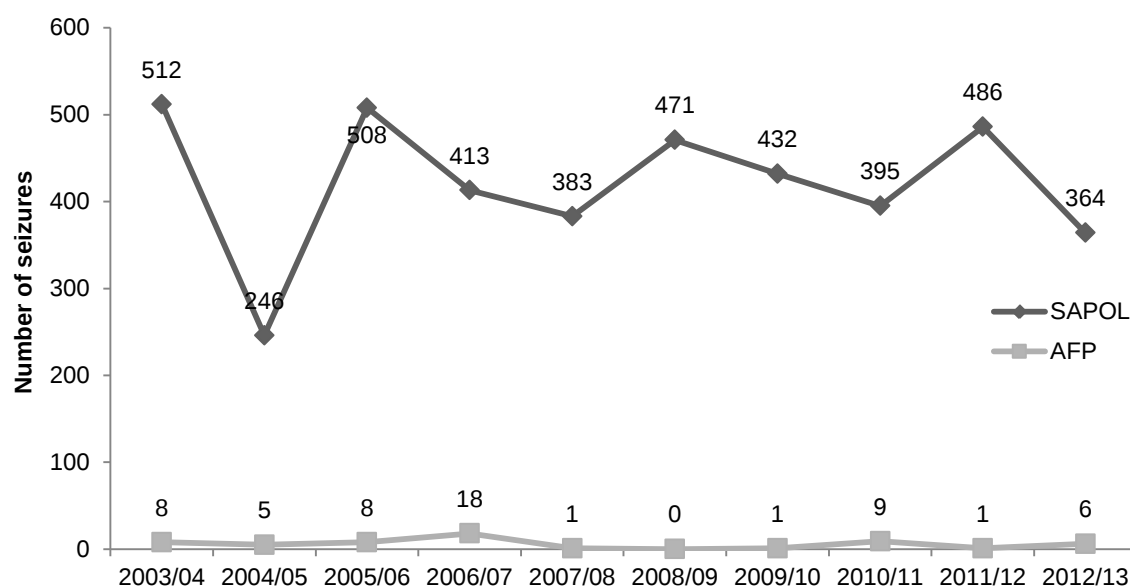
**Table 35: Change in potency/strength of cannabis in last six months, 2013 & 2014**

|             | % Able to answer |                |                 |                |
|-------------|------------------|----------------|-----------------|----------------|
|             | 2013             |                | 2014            |                |
|             | Hydro<br>(n=51)  | Bush<br>(n=53) | Hydro<br>(n=55) | Bush<br>(n=48) |
| Increasing  | 10               | 11             | 7               | 17             |
| Stable      | 61               | 66             | 62              | 52             |
| Decreasing  | 10               | 4              | 4               | 2              |
| Fluctuating | 20               | 19             | 27              | 29             |

**Source:** EDRS participant interviews

Note: 'Don't know' not included

The ACC data were unavailable for 2013/14 at the time of publication. As a consequence, data provided by the ACC relates to the data on seizures during the last financial year, 2012/13 (Australian Crime Commission, 2014). Figure 22 shows the number of seizures for cannabis, by SAPOL and the AFP. As can be seen, there was a sharp decrease in SAPOL seizures in 2012/13, whilst AFP seizures remained low.

**Figure 22: Number of cannabis seizures, 2003/04–2012/13**

**Source:** Australian Crime Commission, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014

### 5.5.3 Availability

Table 36 and Table 37 summarise the current availability of hydro and bush cannabis and the changes in the availability of cannabis over the last six months, according to participant reports. In 2014, the majority of participants able to comment reported hydro and bush cannabis as 'easy' or 'very easy' to obtain (92% and 73% respectively). There was, however, a significant decrease in the proportion of participants who reported that bush cannabis was 'easy' or 'very easy' to obtain (89% in 2013 versus 73% in 2014;  $p<0.05$ ; 95% CI: 0.02–0.31), and an inverse increase in those who reported it was 'difficult' or 'very difficult' to obtain (11% in 2013 versus 28% in 2014;  $p<0.05$ ; 95% CI: -0.31 – -0.02). Of those able to comment, the greatest proportion of REU reported that the availability of hydro (66%) and bush (45%) had remained stable in the last six months.

**Table 36: Availability of cannabis currently, 2013 & 2014**

| How easy is it to get cannabis at the moment? | % Able to answer |                |                 |                |
|-----------------------------------------------|------------------|----------------|-----------------|----------------|
|                                               | 2013             |                | 2014            |                |
|                                               | Hydro<br>(n=56)  | Bush<br>(n=55) | Hydro<br>(n=58) | Bush<br>(n=54) |
| Very easy                                     | 55               | 53             | 52              | 32*            |
| Easy                                          | 34               | 36             | 40              | 41             |
| Difficult                                     | 11               | 11             | 9               | 22             |
| Very difficult                                | 0                | 0              | 0               | 6              |

Source: EDRS participant interviews

Note: 'Don't know' not included

\* $p<0.05$

**Table 37: Change in availability of cannabis over the last 6 months, 2013 & 2014**

| Has [availability] changed in the last 6 months? | % Able to answer |                |                 |                |
|--------------------------------------------------|------------------|----------------|-----------------|----------------|
|                                                  | 2013             |                | 2014            |                |
|                                                  | Hydro<br>(n=55)  | Bush<br>(n=55) | Hydro<br>(n=56) | Bush<br>(n=51) |
| More difficult                                   | 18               | 11             | 11              | 20             |
| Stable                                           | 65               | 64             | 66              | 45             |
| Easier                                           | 9                | 18             | 9               | 24             |
| Fluctuates                                       | 7                | 7              | 14              | 12             |

Source: EDRS participant interviews

Note: 'Don't know' not included

### 5.5.4 Usual source of purchase

Table 38 summarises information from participants on the source (both person and venue) from which they had 'usually' obtained cannabis in the preceding six months. In 2014, participants able to comment reported that they had 'usually' obtained cannabis from a friend (42% for hydro; 54% for bush) or a known dealer (42% for hydro; 29% for bush) in the six months prior to interview. The majority of participants able to comment reported that the venue they had 'usually' obtained cannabis from was a friend's home (30% for hydro; 40% for bush), a dealer's home (30% for hydro; 21% for bush) or home delivery (23% for hydro; 15% for bush).

**Table 38: Usual person and source venue where participants purchased hydro and bush cannabis, 2014**

|                        | Hydro<br>(n=57) | Bush<br>(n=52) |
|------------------------|-----------------|----------------|
| <b>Person (%)</b>      |                 |                |
| Friends                | 42              | 54             |
| Known dealer           | 42              | 29             |
| Workmates              | 2               | 2              |
| Street dealer          | 2               | 0              |
| Unknown dealer         | 0               | 2              |
| Acquaintances          | 5               | 8              |
| Mobile dealer          | 5               | 0              |
| Grew own               | 0               | 4              |
| Relative               | 0               | 2              |
| Other                  | 2               | 0              |
| <b>Venue (%)</b>       |                 |                |
| Home delivery          | 23              | 15             |
| Dealer's home          | 30              | 21             |
| Friend's home          | 30              | 40             |
| Agreed public location | 16              | 12             |
| Private party          | 2               | 2              |
| Grew own               | 0               | 4              |
| Pub/bar                | 0               | 2              |
| Acquaintance's home    | 0               | 4              |

**Source:** EDRS participant interviews

### Key Expert Comments

- The majority of KE agreed that the PPA of cannabis had remained stable in the 12 months preceding interview. The price of cannabis was reported to have remained stable at \$25 for a bag.

## 5.6 Other drugs

Very few participants were able to answer on benzodiazepines (n=6), pharmaceutical stimulants (n=6), GHB (n=3), ketamine (n=2), steroids (n=1) or MDA (n=1) and hence data will not be presented for these drugs. No participants were able to answer on antidepressants or antipsychotics.

## 6 HEALTH-RELATED TRENDS ASSOCIATED WITH ECSTASY & RELATED DRUG USE

### Key Findings

- Just under one-third of the sample (29%) self-reported that they had overdosed on a stimulant drug and 20% reported that they had overdosed on a depressant drug in the past 12 months.

### *Health service use*

- Eight participants self-reported that they had received professional help for a drug and alcohol related issue, and nine participants self-reported that they had thought about seeking help for their drug and alcohol use.
- Telephone calls to ADIS remained stable for alcohol, ecstasy, cannabis and methamphetamine, whilst decreasing slightly for cocaine.
- Alcohol dominated as the primary drug of concern for the largest proportion of total clients to DASSA treatment services, followed by amphetamines, cannabis, opioid analgesics and heroin. Both ecstasy and cocaine accounted for only a very small fraction of the total attendances.
- In 2014, 34% of RPU reported that their drug use had caused them to experience problems related to risk (e.g. driving or operating machinery while intoxicated) and 27% reported that it had caused them problems with responsibility (e.g. repeated absences from work/university).

### *Mental health*

- Just over one-fifth (22%) of RPU were assessed as having high to very high levels of psychological distress in 2014, with 25% of the sample reporting that they had experienced a mental health problem (other than drug dependence) in the six months preceding interview.

### 6.1 Overdose and drug-related fatalities

As in previous years, participants in the 2014 sample were asked about 'stimulant' and 'depressant' drug overdose experiences separately. Stimulant drugs include ecstasy; methamphetamine base, powder or crystal; pharmaceutical stimulants; cocaine; MDA; and PMA. Depressant drugs include alcohol; GHB; heroin; methadone; benzodiazepines; and other opiates. Participants were asked if they had experienced overdose on a 'stimulant' and/or 'depressant' drug in their lifetime and in the last 12 months. The location where participants had overdosed was also investigated, as was the main drug participants believed was involved. Overall, when recent (in the 12 months prior to interview) 'stimulant' and 'depressant' overdoses were combined, 41 participants reported that they had had a recent overdose experience.

### 6.1.1 Stimulant overdose

Lifetime stimulant overdose was reported by 35% of RPU, similar to overdose rates reported in 2013 (41%). Those who had ever experienced a stimulant overdose reported doing so on a median of 1 occasion (range=1–20), and the median time since last overdose was six months (range=1–48 months).

Twenty-nine participants reported that they had overdosed on a 'stimulant' drug in the last 12 months, and at the time of their most recent overdose they had been partying for a median of seven hours (range=1–192). Participants predominantly reported being at a nightclub (n=6), a live music event (n=6) or at their own home (n=6) at the time of overdose. Fewer participants reported being at a friend's home (n=4), private party (n=2), pub (n=2) or outdoors (n=1) at the time of overdose. Amongst those who had recently overdosed, the main drug involved was ecstasy (n=12), with recent smaller proportions attributing their last overdose to NBOMe (n=4) and crystal methamphetamine (n=3). Few participants attributed their most recent overdose to PMA (n=2), LSD (n=1), speed (n=1), ketamine (n=1), 2CB (n=1), GHB (n=1) and MDMA (n=1).

The main symptoms which participants reported on their last stimulant overdose (if it occurred within the last 12 months) included increased body temperature (n=5), nausea (n=4), extreme anxiety (n=4), vomiting (n=3) and tremors (n=3). Fewer participants reported symptoms of chest pain, irregular breathing (shallow), visual hallucinations, unconsciousness and panic.

Of those who had overdosed in the past 12 months, almost two-thirds (64%) reported that they had received some form of immediate treatment. The most common treatment received was being monitored or watched by friends (n=13), with smaller numbers reporting that they had been attended to by an ambulance (n=3), attended a hospital emergency department (n=3) or visited their GP (n=1). In addition, five participants reported seeking any post-treatment or information as a result of their overdose, most commonly from online sources.

### 6.1.2 Depressant overdose

Thirty-seven participants reported they had 'ever' overdosed on 'depressant' drugs, again stable from 2013. Those that had experienced a depressant overdose had done so on a median of two occasions (range=1–40), and the median time since last overdose was 10 months (range=1–132 months).

Twenty participants reported overdosing on a 'depressant' drug in the last 12 months, and at the time of their most recent overdose they had been partying for a median of five hours (range=0–14). The main drug involved in these recent depressant overdoses was predominantly alcohol (n=16), with smaller numbers reporting that other opiates (n=2), GHB (n=1) and cannabis (n=1) were the main drugs involved. Vomiting was the most common symptom reported by those who had overdosed on a depressant drug in the past year (n=12), followed by losing consciousness (n=6).

The location of last overdose was quite mixed with most participants reporting that they were at a nightclub (n=6), their own home (n=5) or at a private party (n=3). Smaller numbers reported being at a friend's home (n=2), pub (n=2), public place (n=1) or in a car (n=1).

Of those who had overdosed in the past 12 months, almost two-thirds (65%; n=13) reported that they had received some form of immediate treatment. The most common treatment received was being monitored or watched by friends (n=11), with smaller numbers reporting that they had been attended to by an ambulance (n=2) or been admitted to a hospital emergency department (n=1). No participants reported seeking any post-treatment or information as a result of their overdose.

## 6.2 Help-seeking behaviour

In 2014, 8% of REU reported having sought help from a service or health professional in the last six months for any issue related to their drug and/or alcohol use. In addition, nine participants reported that they had thought about seeking help for reasons relating to their drug use. The reasons for not seeking help (even though they had thought about doing so) were diverse and included: couldn't be bothered (n=3), social stigma (n=2), a previous bad experience (n=1) and not actually wanting to stop their drug use (n=1). One participant reported that they were unsure why they hadn't sought help.

Amongst the entire sample, 88% reported accessing a health service (for any reason) in the preceding six months. The main service accessed was a general practitioner (n=72), followed by a dentist (n=36). Smaller numbers reported that they had visited an: 'other' health professional (n=19), emergency department (n=15), psychologist (n=9), hospital (n=8), medical tent (n=7), drug and alcohol counsellor (n=7), specialist doctor (n=7), psychiatrist (n=5), ambulance (n=5) and social/welfare worker (n=3).

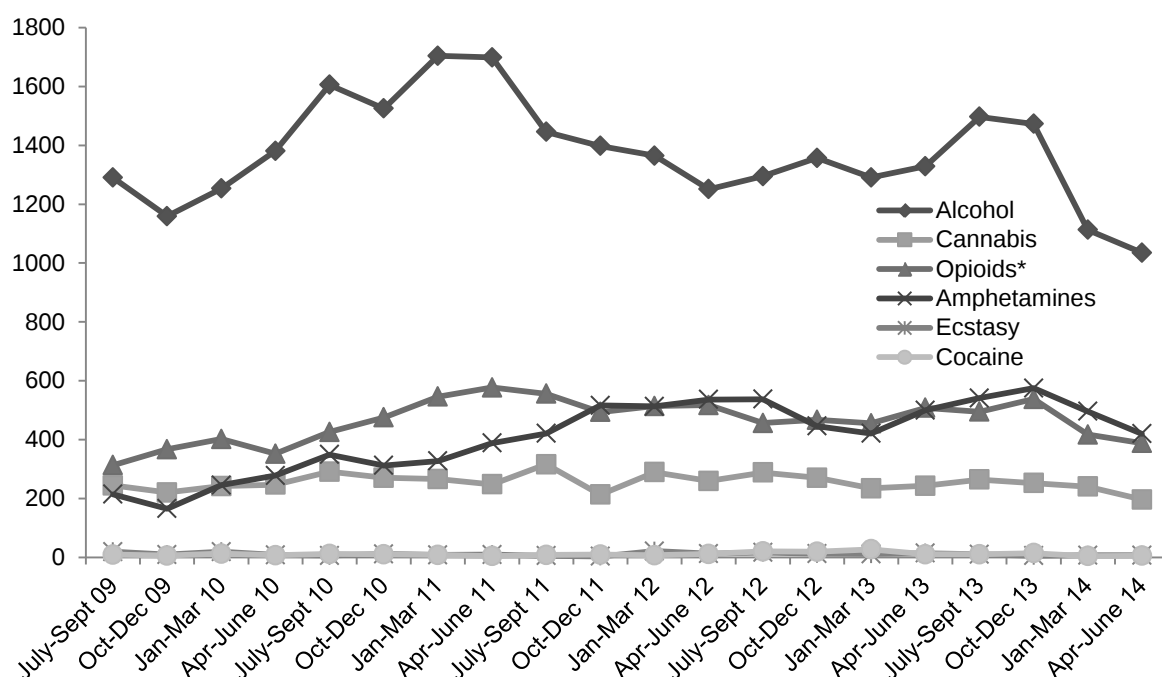
## 6.3 Drug treatment services

The following drug treatment data for South Australia comes from two sources: telephone calls to the SA Alcohol and Drug Information Service (ADIS); and Drug and Alcohol Services South Australia (DASSA). The sections below will present data in terms of clients (per drug type) to these services, to provide a clearer picture of the trends in the number of individuals seeking treatment for the various illicit substances. For information in terms of episodes of treatment (per drug type) – that gives a more accurate measure of demand, or total load, on treatment services – the reader is directed to the Alcohol and Other Drugs Treatment Services report (Australian Institute of Health and Welfare, 2014), which presents findings from DASSA and non-government treatment agencies in SA.

### 6.3.1 Treatment services ADIS

Figure 23 shows the number of drug-related telephone calls to the SA Alcohol and Drug Information Service (ADIS) from the general public, regarding six different substance types across the financial years 2009/10 to 2013/14. It can be seen that the majority of drug-related calls to SA ADIS across the time period depicted have been alcohol-related, with the number of alcohol-related calls remaining stable over the past three financial years. The number of opioid, amphetamine and cannabis-related calls also remained relatively stable in 2013/14. Calls relating to ecstasy or cocaine have constituted less than 1% of the total coded calls to SA ADIS across all years depicted.

**Figure 23: Number of drug-related calls to ADIS per quarter, by selected drug type, July 2009–June 2014**



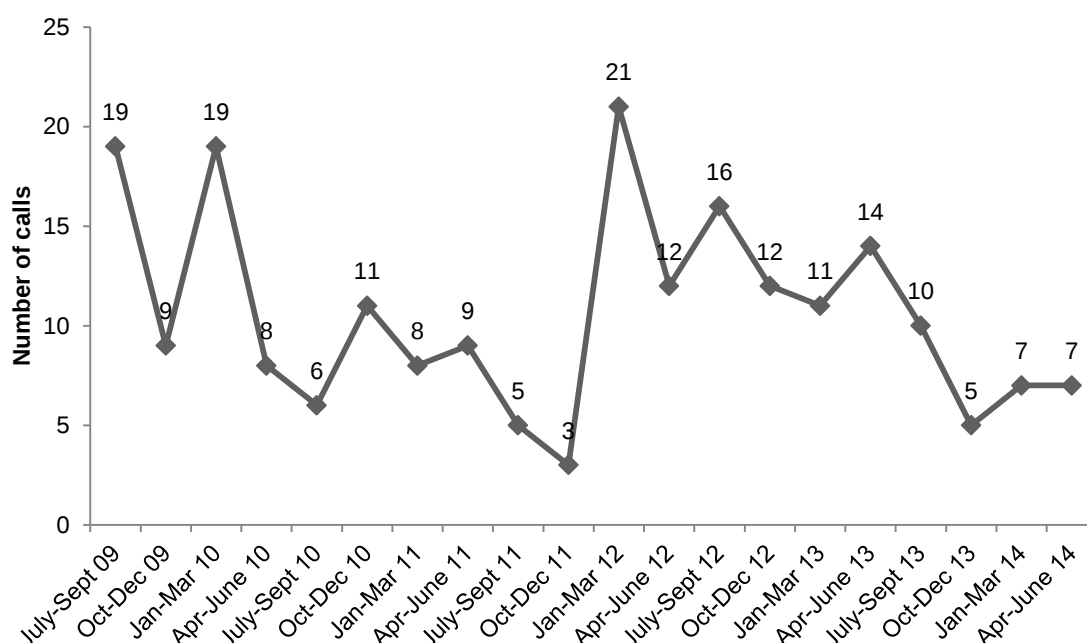
**Source:** SA ADIS

\* 'Opioids' includes all calls coded under the categories heroin, methadone, buprenorphine, naltrexone, opioid pharmacotherapies, alcohol pharmacotherapies and other opioids

### 6.3.1.1 Ecstasy-related calls

Telephone calls to ADIS regarding ecstasy accounted for just 0.2% (n=29) of the total coded telephone contacts (drug-related) in the 2013/14 financial year (n=14,812); this was stable from 2012/13 (0.3%; n=53). Figure 24 depicts the number of ecstasy-related calls per quarter for the last five financial years. Although the number of calls regarding ecstasy have fluctuated over the years, it can be seen that, overall, they have remained extremely low.

**Figure 24: Number of inquiries to ADIS regarding ecstasy, July 2009–June 2014**



Source: SA ADIS

#### *6.3.1.2 Methamphetamine-related calls*

Telephone calls to ADIS regarding amphetamines accounted for 13.7% (n=2,032) of the 14,812 total drug-related calls in the 2013/14 financial year. This was stable from the previous financial year (12.5% of a total 15,252 calls), and represents a plateauing of the upward trend observed from 2009–12.

Figure 23 depicts the number of amphetamine-related calls per quarter for the last five financial years compared to calls related to other drug types. As can be seen, in 2013/14 calls related to methamphetamine continued to be higher than those for cannabis and were similar to the number of opioid-related calls.

#### *6.3.1.3 Cocaine-related calls*

Telephone calls to ADIS regarding cocaine accounted for only 0.2% (n=33) of total drug-related telephone calls in 2013/14; this was a slight decrease from 2012/13 (0.5%; n=76).

Figure 23 depicts the number of cocaine-related calls per quarter for the last five financial years compared to calls related to other drug types. As can be seen, the number of calls regarding cocaine have remained consistently low over the years.

#### *6.3.1.4 Cannabis-related calls*

Telephone calls to ADIS regarding cannabis accounted for 6.4% (n=952) of the total coded telephone contacts (drug-related) in the 2013/14 financial year, and this was stable from 2012/13 (6.8%; n=1,035).

Figure 23 depicts the number of cannabis-related calls per quarter for the last five financial years compared to calls related to other drug types. As can be seen, the number of cannabis-related calls have remained relatively stable over the past five years.

### 6.3.2 Treatment services DASSA

As can be seen in Table 39, in 2012/13 alcohol continued to dominate as the primary drug of concern for clients to DASSA treatment services, followed by amphetamines, cannabis, opioid analgesics and heroin. Both ecstasy and cocaine accounted for only a very small fraction (<1%) of the total attendances, and this remained stable from 2013/14.

**Table 39: Primary drug of concern nominated by clients of Drug and Alcohol Services South Australia, as a percentage of total number of clients\*, 2009/10–2013/14**

| Drug type (%)     | 2009/10<br>N=5,716 | 2010/11<br>N=5,430 | 2011/12<br>N=5,438 | 2012/13<br>N=5,262 | 2013/14<br>N=4,932 |
|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Alcohol           | 57.1               | 54.7               | 49.4               | 47.5               | 47.1               |
| Amphetamines      | 13.3               | 16.0               | 19.4               | 19.1               | 18.5               |
| Heroin            | 8.6                | 8.7                | 7.8                | 8.6                | 7.0                |
| Opioid analgesics | 7.0                | 6.9                | 8.3                | 8.9                | 8.2                |
| Cannabis          | 10.8               | 11.4               | 13.9               | 13.9               | 13.3               |
| Benzodiazepines   | 1.9                | 1.9                | 1.9                | 2.0                | 1.9                |
| Ecstasy           | 1.6                | 1.0                | 0.5                | 0.3                | 0.5                |
| Cocaine           | 0.4                | 0.2                | 0.2                | 0.2                | 0.2                |
| Tobacco           | 0.6                | 0.7                | 0.5                | 0.5                | 0.4                |
| Unknown           | 0.1                | 0.1                | 0.3                | 0.1                | 0.4                |
| Buprenorphine     | 1.3                | 1.4                | 1.8                | 1.9                | 2.2                |
| Suboxone          | -                  | -                  | -                  | -                  | 0.4                |
| Other             | 2.5                | 2.1                | 1.2                | 3.0                | 6.9                |

Source: Drug and Alcohol Services South Australia

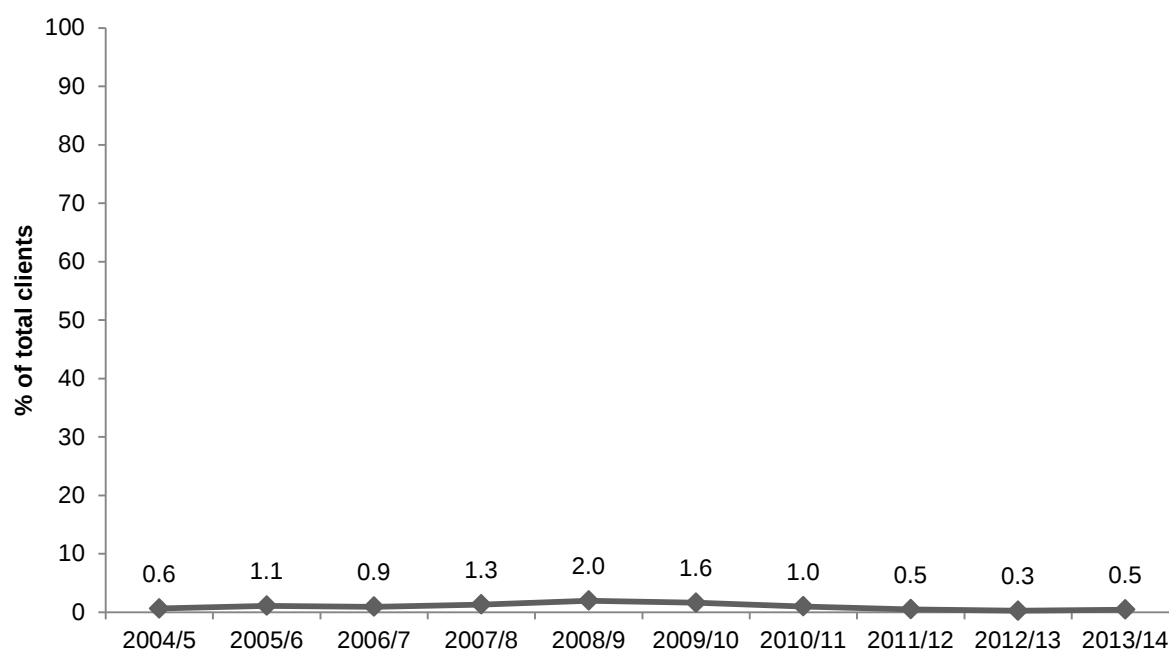
\* Total number of clients = total number of individuals who started one or more new episodes of treatment during the period. Figures rounded up to one decimal place

Note: Total percentages for each year may not equal 100% as clients may have presented with more than one primary drug of concern within that time

#### 6.3.2.1 Ecstasy-related attendances

DASSA treatment data revealed that in 2013/14 there were 22 clients (individuals) to all DASSA treatment services who nominated ecstasy as their primary drug of concern. This constitutes 0.5% of total clients for that year, and is stable from 2012/13. See also Table 39 for a comparison of ecstasy to other primary drugs of concern among clients of DASSA treatment services.

**Figure 25: Percentage of total DASSA clients with ecstasy as the primary drug of concern, 2004/05–2013/14**

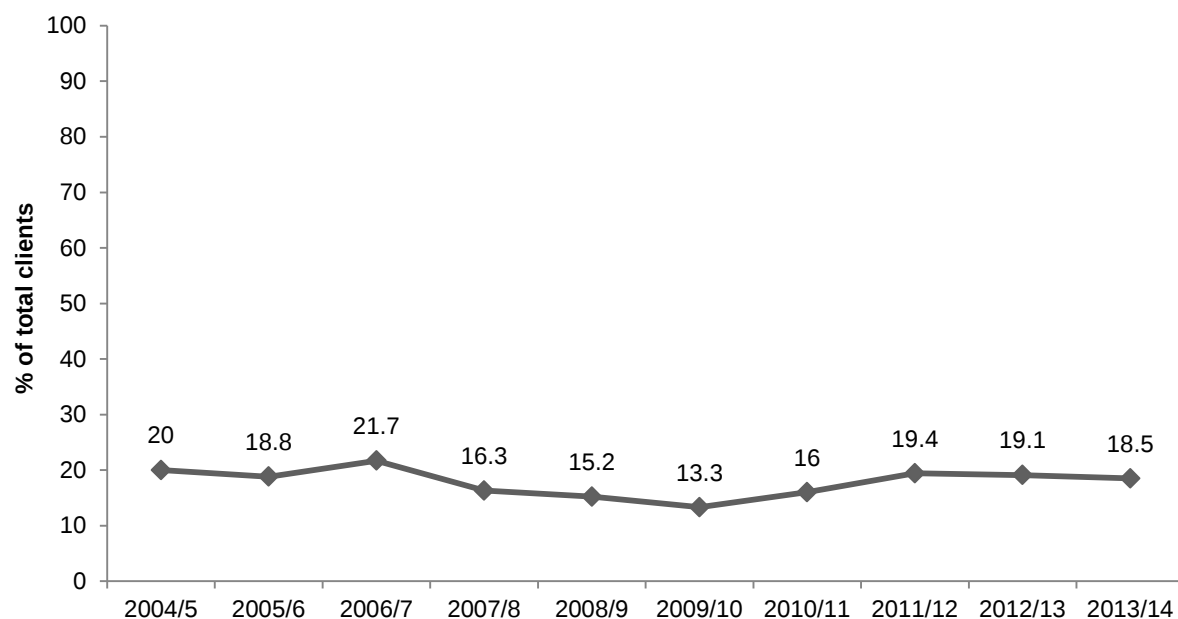


**Source:** Drug and Alcohol Services South Australia

#### *6.3.2.2 Methamphetamine-related attendances*

The proportion of clients nominating amphetamines as their primary drug of concern remained relatively stable in 2013/14. Amphetamines (18.5%) continued to dominate as the most common *illicit* drug of concern amongst DASSA clients, coming second only to alcohol (47.1%).

**Figure 26: Percentage of total DASSA clients with amphetamines as the primary drug of concern, 2004/05–2013/14**

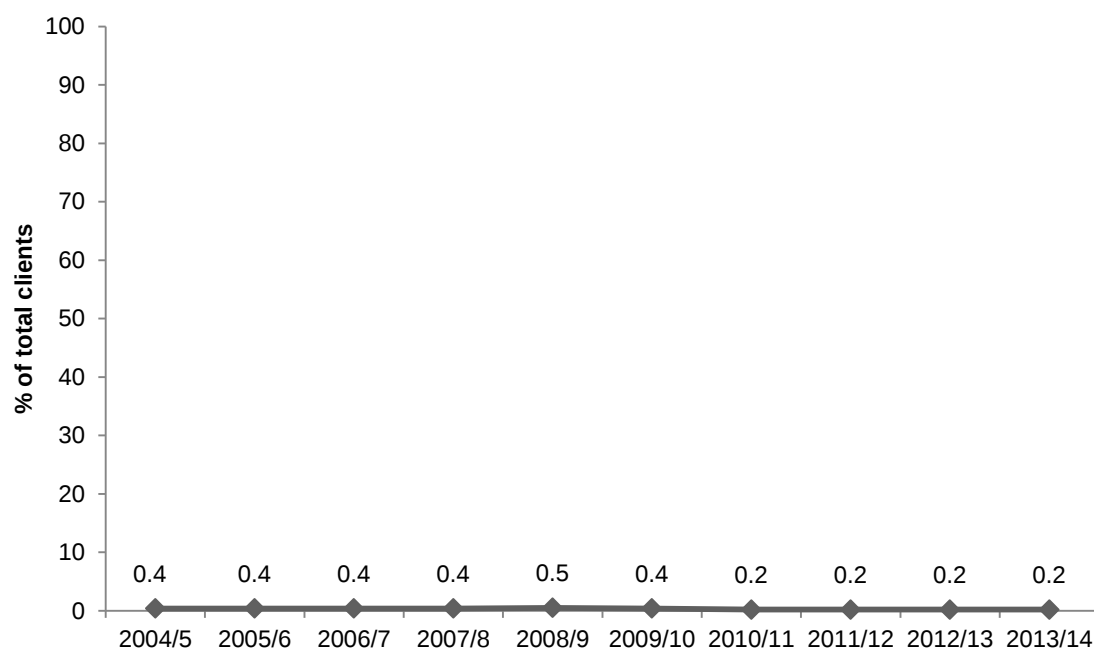


Source: Drug and Alcohol Services South Australia

### 6.3.2.3 Cocaine-related attendances

The proportion of clients nominating cocaine as their primary drug of concern has remained consistently low across all years reported. Of clients to all DASSA treatment services, 0.2% (n=11 of 4,932 individuals) nominated cocaine as their primary drug of concern in 2013/14.

**Figure 27: Percentage of total DASSA clients with cocaine as the primary drug of concern, 2004/05–2013/14**

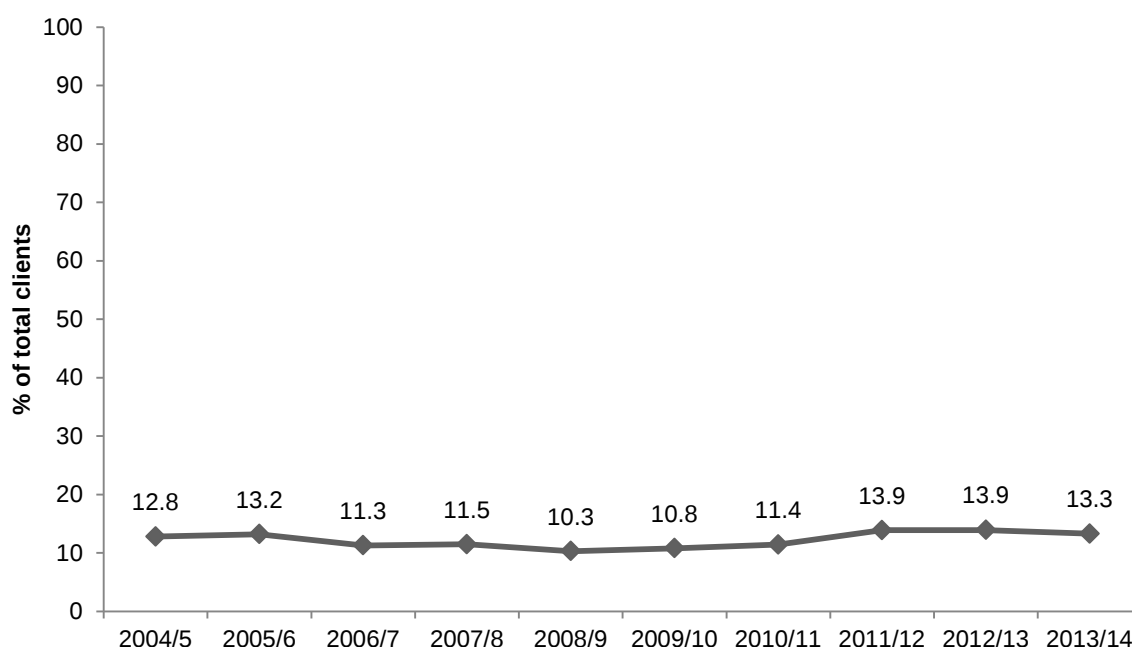


Source: Drug and Alcohol Services South Australia

### 6.3.2.4 Cannabis-related attendances

The proportion of clients nominating cannabis as their primary drug of concern remained stable in 2013/14. Of clients to all DASSA treatment services, 13.3% (n=655 of 4,932 individuals) nominated cannabis as their primary drug of concern in 2013/14.

**Figure 28: Percentage of total DASSA clients with cannabis as the primary drug of concern, 2004/05–2013/14**



Source: Drug and Alcohol Services South Australia

## 6.4 Other self-reported problems associated with ecstasy and related drug use

The participant survey also asked users about their experience of other problems related to their ecstasy or other drug use during the last six months, in the categories of social/relationship, risk/injury, legal/police, and responsibility (see Table 40). In 2014, the most common problem associated with drug use related to risk/injury problems (where participants could have been hurt or hurt others; for example, driving or operating machinery while intoxicated), followed by responsibility problems (either at work, home or school; for example, neglect of household/children, repeated absences from work/school/university etc.). One-fifth (21%) of the sample reported that drug use had caused them to have repeated problems with family, friends or people at work/school, whilst 3% reported recurrent drug-related legal problems.

**Table 40: Self-reported problems associated with ecstasy and related drug use, 2013 & 2014**

|                                  | 2013<br>(N=100) | 2014<br>(N=100) |
|----------------------------------|-----------------|-----------------|
| Relationship/social problems (%) | 23              | 21              |
| Legal/police problems (%)        | 4               | 3               |
| Risk problems (%)                | 41              | 34              |
| Responsibility problems (%)      | 32              | 27              |

Source: EDRS participant interviews

Participants were also asked to nominate which drug or drugs they attributed the problem to. A summary of these data is given in Table 41. As can be seen, alcohol was the most common drug held responsible for legal and risk problems, whilst relationship and responsibility problems were most commonly attributed to ecstasy and cannabis respectively.

**Table 41: Proportion of participants reporting other harms associated with main drug in the last six months, 2013 & 2014**

|                                   | Relationship/social problems |              | Legal/police problems |             | Risk problems |              | Responsibility problems |              |
|-----------------------------------|------------------------------|--------------|-----------------------|-------------|---------------|--------------|-------------------------|--------------|
| (%)                               | 2013<br>n=23                 | 2014<br>n=21 | 2013<br>n=4           | 2014<br>n=3 | 2013<br>n=40  | 2014<br>n=34 | 2013<br>n=32            | 2014<br>n=27 |
| <b>Ecstasy</b>                    | 39                           | <b>43</b>    | 25                    | <b>0</b>    | 15            | <b>15</b>    | 28                      | <b>22</b>    |
| <b>Cannabis</b>                   | 35                           | <b>33</b>    | 0                     | <b>33</b>   | 10            | <b>21</b>    | 22                      | <b>41</b>    |
| <b>Alcohol</b>                    | 13                           | <b>14</b>    | 75                    | <b>67</b>   | 63            | <b>41</b>    | 44                      | <b>30</b>    |
| <b>Speed</b>                      | 4                            | <b>0</b>     | 0                     | <b>0</b>    | 3             | <b>0</b>     | 3                       | <b>0</b>     |
| <b>Base</b>                       | 0                            | <b>0</b>     | 0                     | <b>0</b>    | 0             | <b>0</b>     | 0                       | <b>0</b>     |
| <b>Crystal</b>                    | 4                            | <b>5</b>     | 0                     | <b>0</b>    | 5             | <b>12</b>    | 3                       | <b>7</b>     |
| <b>LSD</b>                        | 0                            | <b>0</b>     | 0                     | <b>0</b>    | 3             | <b>0</b>     | 0                       | <b>0</b>     |
| <b>Cocaine</b>                    | 0                            | <b>0</b>     | 0                     | <b>0</b>    | 0             | <b>3</b>     | 0                       | <b>0</b>     |
| <b>Ketamine</b>                   | 0                            | <b>0</b>     | 0                     | <b>0</b>    | 0             | <b>3</b>     | 0                       | <b>0</b>     |
| <b>Heroin &amp; other opiates</b> | 0                            | <b>0</b>     | 0                     | <b>0</b>    | 0             | <b>0</b>     | 0                       | <b>0</b>     |
| <b>Other</b>                      | 4                            | <b>5</b>     | 0                     | <b>0</b>    | 3             | <b>6</b>     | 0                       | <b>0</b>     |

Source: EDRS participant interviews

## 6.5 Emergency Department admissions

Information on drug-related attendances to the Emergency Department was provided by the Royal Adelaide Hospital (RAH), the largest central public hospital in Adelaide, and is presented in Table 42. It is important to note that these data are likely to be an underestimate of drug-related Emergency Department presentations. Drug involvement may not always be coded accurately, and coding accuracy is also dependent on accurate self-reporting of those presenting. Data should be interpreted with these caveats in mind.

Readers are also warned that these are 'uncleaned' data and should be interpreted with caution; however, they are included here to give a picture of trends over time, rather than to provide precise numbers.

As seen in Table 42, alcohol continues to account for the majority of attendances to the RAH Emergency Department. Ecstasy-related attendances are not specifically coded. However, of interest in the context of ecstasy and related drug use is the trend in the number of presentations for GHB, amphetamines and cannabis. The number of GHB and cannabis-related attendances remained relatively stable in 2013/14; however, there was a slight increase in the number of amphetamine-related attendances, continuing an upward trend that has been observed over the past four years. Amphetamine-related attendances remained the most common of the illicit drug-related attendances at the RAH, with attendances related to heroin declining in 2013/14.

**Table 42: Number of attendances\* to the Emergency Department at the Royal Adelaide Hospital, SA, from 2004/05–2013/14 (per drug or diagnosis)**

|                                | 2004/<br>2005 | 2005/<br>2006 | 2006/<br>2007 | 2007/<br>2008 | 2008/<br>2009 | 2009/<br>2010 | 2010/<br>2011 | 2011/<br>2012 | 2012/<br>2013 | 2013/<br>2014 |
|--------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <b>Amphetamines</b>            | 91            | 61            | 82            | 67            | 58            | 61            | 61            | 83            | 109           | <b>136</b>    |
| <b>Cocaine</b>                 | 4             | 6             | 4             | 1             | 4             | 5             | 1             | 2             | 4             | <b>4</b>      |
| <b>LSD</b>                     | 6             | 3             | 2             | 3             | 7             | 7             | 3             | 2             | 2             | <b>1</b>      |
| <b>GHB</b>                     | 48            | 38            | 14            | 15            | 15            | 17            | 20            | 20            | 17            | <b>25</b>     |
| <b>Alcohol</b>                 | 1,465         | 1,409         | 1,559         | 1,554         | 1,585         | 2,078         | 2,119         | 1,835         | 1,860         | <b>1,739</b>  |
| <b>Cannabis</b>                | 15            | 13            | 15            | 15            | 13            | 11            | 14            | 22            | 14            | <b>16</b>     |
| <b>Heroin</b>                  | 30            | 32            | 39            | 44            | 66            | 51            | 66            | 63            | 55            | <b>35</b>     |
| <b>Other opioid**</b>          | 70            | 68            | 59            | 28            | 38            | 36            | 38            | 40            | 47            | <b>21</b>     |
| <b>Benzodiazepines</b>         | 141           | 122           | 174           | 145           | 151           | 169           | 162           | 147           | 117           | <b>130</b>    |
| <b>Antidepressants</b>         | 87            | 55            | 74            | 78            | 67            | 58            | 71            | 73            | 67            | <b>60</b>     |
| <b>Drug addiction#</b>         | 37            | 28            | 17            | 8             | 1             | 0             | 0             | 0             | 0             | <b>0</b>      |
| <b>Drug-induced psychosis#</b> | 89            | 31            | 37            | 28            | 0             | 0             | 0             | 0             | 0             | <b>0</b>      |
| <b>Drug withdrawal#</b>        | 26            | 19            | 20            | 0             | 0             | 0             | 0             | 0             | 0             | <b>0</b>      |
| <b>Other###</b>                | 434           | 360           | 579           | 528           | 464           | 480           | 471           | 439           | 448           | <b>446</b>    |
| <b>TOTAL</b>                   | <b>2,543</b>  | <b>2,245</b>  | <b>2,675</b>  | <b>2,514</b>  | <b>2,469</b>  | <b>2,973</b>  | <b>3,026</b>  | <b>2,726</b>  | <b>2,740</b>  | <b>2,613</b>  |

Source: Royal Adelaide Hospital Emergency Department

\* Coded as drug- or poisoning-related

\*\* Includes opium, methadone, other narcotics (morphine, codeine, pethidine etc.), and opioid withdrawal

# Not otherwise specified, excluding alcohol

### Includes all other poisonings related to food, drug (medical & non-medical), chemical and other toxins

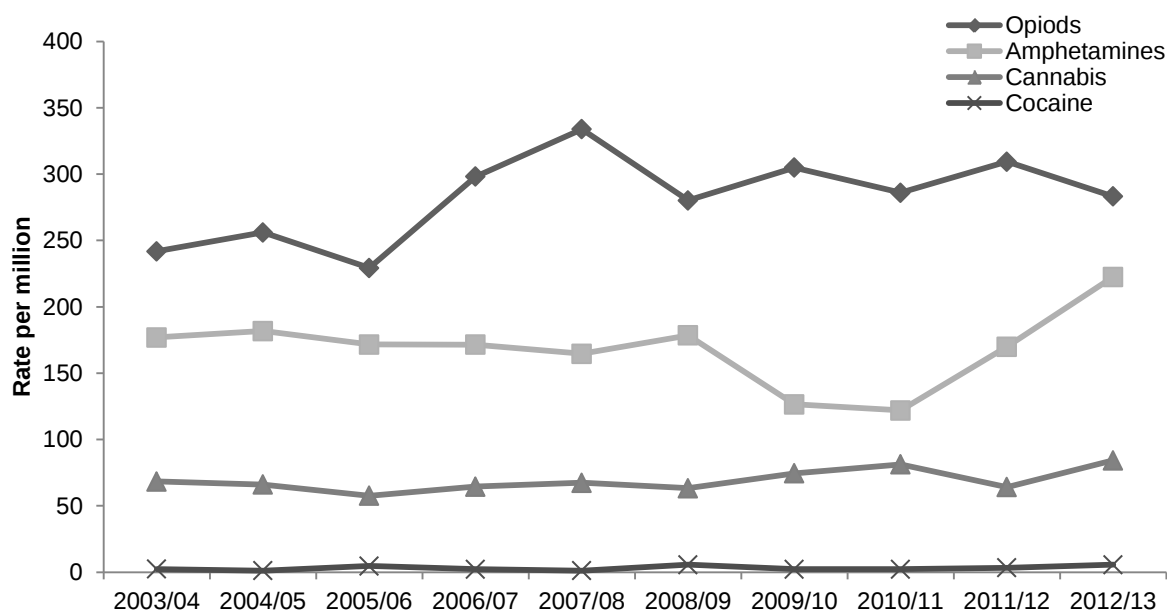
### 6.5.1 Hospital admissions

An analysis of data, provided by the Australian Institute of Health and Welfare (AIHW) from the National Hospital Morbidity Dataset (NHMD), for the period 1997/98 to 2012/13 (financial years), was undertaken by NDARC. These data report on both state-specific and national drug-related hospital admissions (for the four main illicit drug types), adjusted so that all years reflect International Statistical Classification of Diseases and Related Health Problems, Ninth Revision (ICD-9) classifications for comparability across this time period. Readers should note that the major impact of this adjustment is the exclusion of admissions for drug-related psychosis and withdrawal, due to incomparable coding for these conditions

between ICD-9 and International Classification of Diseases and Related Health Problems, Tenth Revision (ICD-10)<sup>9</sup>. It should also be noted that these data lag behind other indicators by one year. At the time of printing, data was not available for 2013/14.

The substances most commonly involved in a primary diagnosis for SA drug-related hospital admissions were opioids (heroin, morphine, methadone etc.), followed by amphetamines, cannabis and cocaine (see Figure 29). Ecstasy-related admissions are not specifically coded.

**Figure 29: Rate per million people of substance-related admissions\* (primary diagnosis) to hospital in South Australia, 2003/04–2012/13**



**Source:** Australian Institute of Health and Welfare

\* For persons aged between 15 and 54 years

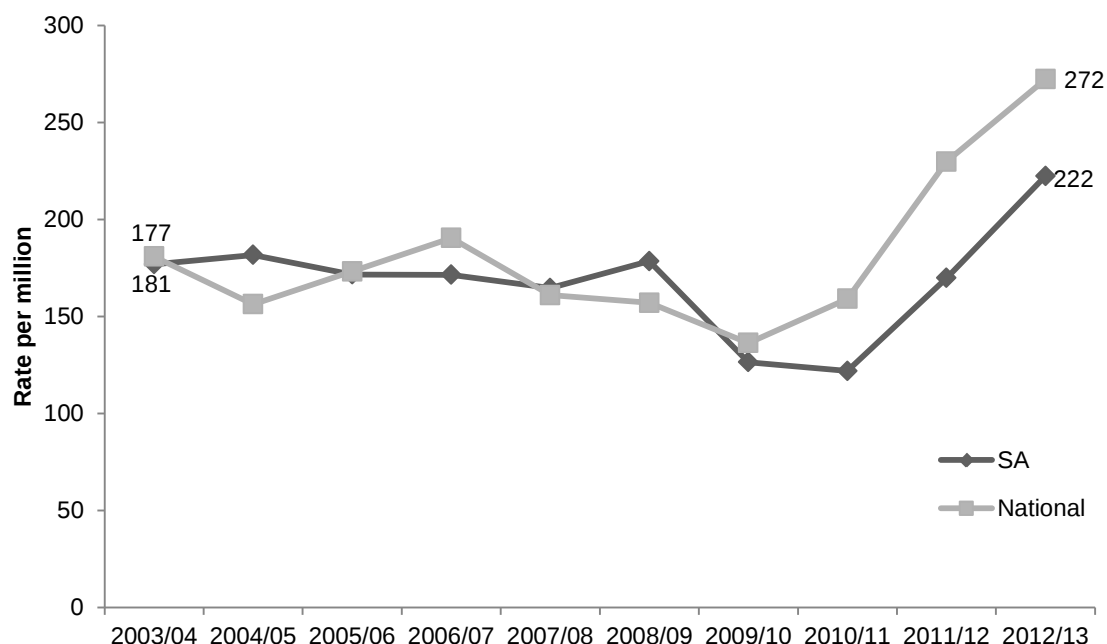
Note: 'Primary diagnosis' was given to those admissions where the substance was considered the primary reason for the patient's episode of care

#### 6.5.1.1 Amphetamine-related hospital admissions

Figure 30 shows the long-term trend of amphetamine-related hospital admissions, from 2003/04 onwards. Admissions with amphetamines as a primary diagnosis increased sharply in 2012/13; from 170 per million in 2011/12 to 222 per million. There was also an increase at the national level, from 230 per million in 2011/12 to 272 per million; this continues an upward trend that has been observed from 2009/10 onwards. Readers are reminded that this figure does not include amphetamine-related psychosis or withdrawal admissions.

<sup>9</sup> ICD-9 coding for drug-related psychosis and withdrawal was non-specific for drug type, where ICD-10 coding is specific for drug type.

**Figure 30: Rate of amphetamine-related admissions\* (primary diagnosis) to hospital in South Australia and nationally, per million people, 2003/04–2012/13**



**Source:** Australian Institute of Health and Welfare

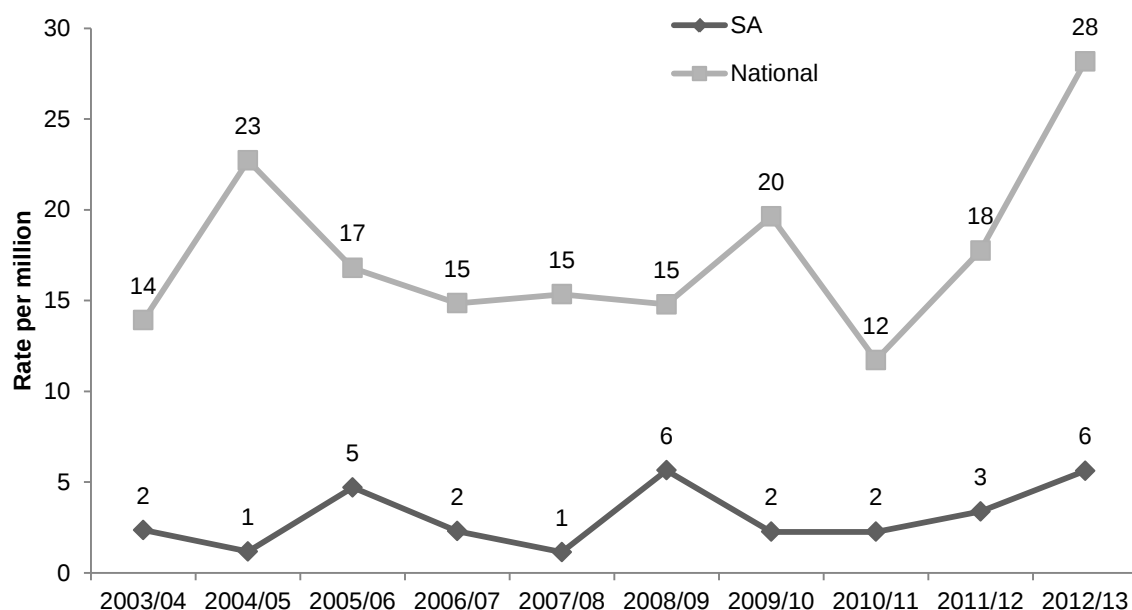
\* For persons aged between 15 and 54 years, excluding amphetamine withdrawal and psychosis admissions

Note: 'Primary diagnosis' was given to those admissions where the substance was considered the primary reason for the patient's episode of care

#### *6.5.1.2 Cocaine-related hospital admissions*

Figure 31 shows that the rates of cocaine-related hospital admissions have fluctuated considerably over the years, both nationally and in South Australia. However, the national rate of cocaine-related admissions has remained consistently higher than observed in SA. Interestingly, admissions with cocaine as a primary diagnosis increased considerably at the national level, from 18 per million in 2011/12 to 28 per million in 2012/13. Cocaine-related admissions doubled in South Australia, from 3 per million in 2011/12 to 6 per million in 2012/13

**Figure 31: Rate of cocaine-related admissions\* (primary diagnosis) to hospital in South Australia and nationally, per million people, 2003/04–2012/13**



**Source:** Australian Institute of Health and Welfare

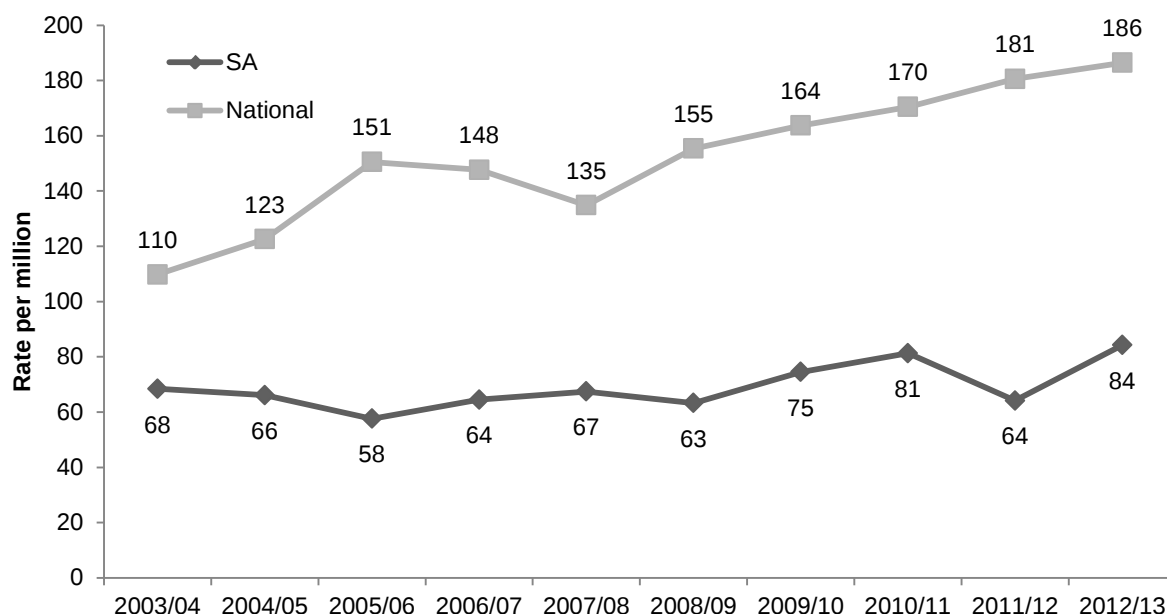
\* For persons aged between 15 and 54 years, excluding cocaine withdrawal and psychosis admissions

Note: 'Primary diagnosis' was given to those admissions where the substance was considered the primary reason for the patient's episode of care

### 6.5.1.3 Cannabis-related hospital admissions

Figure 32 depicts the long-term trend in cannabis-related hospital admissions (primary diagnosis), both nationally and in South Australia from 2003/04 onwards. As can be seen, national rates have been trending upwards over the last decade, whilst SA rates have remained relatively stable. Interestingly, in 2012/13 the rates of admissions observed at the national level increased slightly (from 181 per million in 2011/12 to 186 per million), whilst in SA, admissions increased sharply (from 64 per million in 2011/12 to 84 per million). Readers are reminded that this figure does not include cannabis-related psychosis or withdrawal admissions.

**Figure 32: Rate of cannabis-related admissions\* (primary diagnosis) to hospital in South Australia and nationally, per million people, 2003/04–2012/13**



**Source:** Australian Institute of Health and Welfare

\* For persons aged between 15 and 54 years, excluding cocaine withdrawal and psychosis admissions

Note: 'Primary diagnosis' was given to those admissions where the substance was considered the primary reason for the patient's episode of care

## 6.6 Mental and physical health problems

### 6.6.1 Mental health problems and psychological distress (K10)

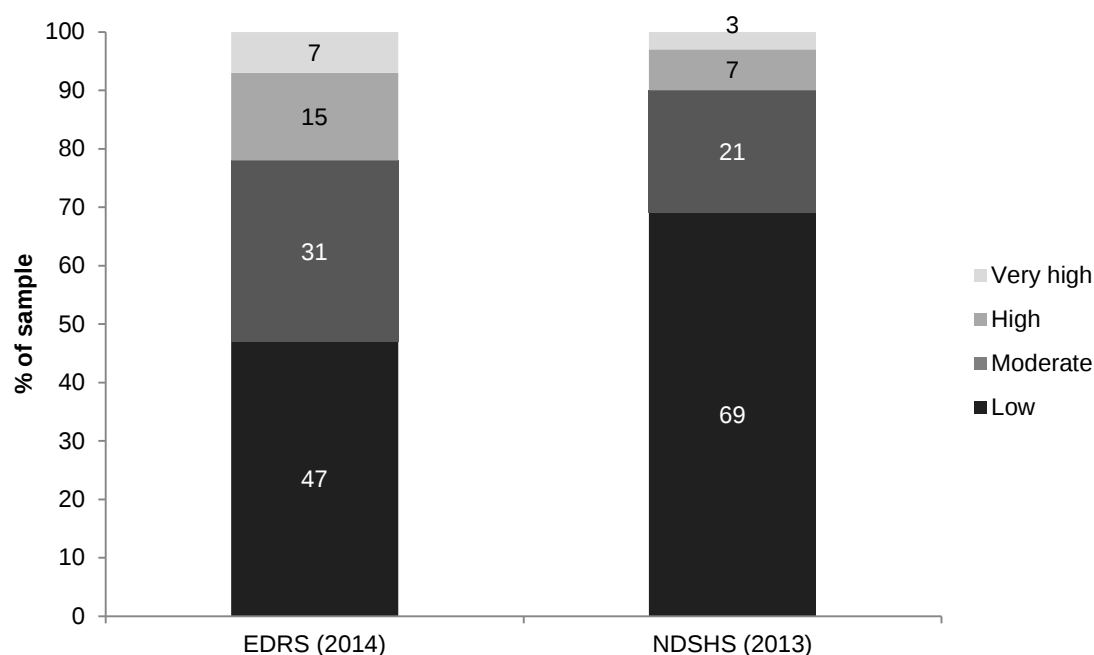
In 2014, the Kessler Psychological Distress Scale (K10) (Kessler & Mroczek, 1994) was used to give a measure of levels of psychological distress among the participant sample.

The K10 was developed as a screening instrument to measure for negative emotional states, referred to as psychological distress. It is described as a simple, brief, valid and reliable instrument used to detect mental health conditions in the population. The scale consists of 10 questions on non-specific psychological distress, and measures the level of anxiety and depressive symptoms a person may have experienced in the past four-weeks; so it asks specifically about recent levels of distress.

Forty-seven percent of participants had scores between 10 and 15 on the K10 (low risk), which represents a significant increase from 2013 (28%;  $p < 0.01$ ; 95% CI: -0.31 – -0.06). Thirty-one percent of participants scored between 16 and 21 (moderate distress), 15% of participants scored from 22 to 29 (high distress), and 7% scored from 30 to 50 (very high distress) (Figure 33). The median total score for participants was 16 (range=10–39), indicating that over half of the sample was at moderate or high/very high risk of psychological distress as measured by the K10.

The 2013 National Drug Strategy Household Survey (AIHW, 2014) provided the most recent Australian population norms available for the K10, and used four categories to describe degree of distress as used in the EDRS. Using these categories, the proportion of EDRS participants reporting 'high' (15%) or 'very high' (7%) distress was higher (22%) compared to those in the National Drug Strategy Household Survey (10%: high = 7%, very high = 3%).

**Figure 33: Proportion of population (NDSHS, 2013) and sample of K10 categories, 2014**



**Source:** EDRS interviews; Australian Institute of Health & Welfare, 2014

Note: The extent to which cut-offs derived from population samples can be applied to the RPU population is yet to be established and, therefore, these findings should be taken as a guide only

### 6.6.2 Self-reported mental health problems

In 2014, 25% of the sample reported experiencing a mental health problem (other than drug dependence) in the six months preceding interview. This was stable from 2013.

Amongst these participants, the majority reported experiencing anxiety (80%; n=20) and depression (64%; n=16). Smaller numbers reported manic depression (16%; n=4), phobias (12%; n=3), paranoia (12%; n=3), mania (4%; n=1), drug-induced psychosis (4%; n=1), any personality disorder (4%; n=1) or posttraumatic stress disorder (4%; n=1). Two-fifths (44%; n=11) of those who reported suffering from a mental health problem had sought professional help for such problems, and six participants had been prescribed some form of medication (most commonly antidepressants).

## 7 RISK BEHAVIOUR

### Key Findings

#### *Injecting risk behaviour*

- Five percent of the sample reported having injected at some time in their lives, and 4% reported injecting in the six months preceding interview. The median age of first injection was 19 years.
- Among those who had injected in the preceding six months (n=4), the most commonly injected drugs were methamphetamine and steroids.
- Syringes were typically obtained from a Clean Needle Program (50%). Of those who had injected in the preceding six months, no participants reported having shared needles or other injecting equipment.

#### *Sexual risk behaviour*

- Fifty-nine percent of RPU reported having had casual sex in the six months preceding interview. Interestingly, being sober did not seem to improve the use of protection, with just under one-half of the sample reporting they had not used any protection during their last sexual encounter (regardless of whether they were sober or under the influence of drugs and/or alcohol at the time).
- Of those who reported having casual sex in the past six months, the vast majority (86%) reported doing so whilst under the influence of drugs and/or alcohol.
- Over half of the sample (59%) had received a sexual health check-up in their lifetime, with five participants reporting that they had been diagnosed with an STI in the past year.

#### *Alcohol risk behaviour*

- Using the Alcohol Use Disorders Identification Test (AUDIT), participants scored a mean of 14.7, with no significant differences being noted between males and females. The majority of the sample (89%) scored eight or more; these are levels at which alcohol intake may be considered hazardous.

#### *Stimulant dependence*

- RPU scored a median of 1 on the ecstasy SDS.
- Over one-quarter of the sample (27%) obtained a score of zero on the ecstasy SDS, and 25% obtained a score of 1 on the scale. This indicates that over half of the sample reported no or few symptoms of dependence in relation to ecstasy use.
- RPU scored a median of 3.5 on the methamphetamine SDS.

## **7.1 Injecting risk behaviour**

Detail on injecting and injecting-related risk behaviour has been included in the EDRS survey since 2004. In 2014, 5% of the sample reported ever injecting any drug; and 80% (n=4) of those reported having injected in the six months prior to interview. The median age of first injecting any drug was 19 years (range=16–25 years; n=5). Equal proportions of REU reported that methamphetamine and steroids were the first drugs ever injected (40% respectively), whilst one participant reported that ‘other opioids’ was the first drug ever injected (20%).

### **7.1.1 Recent injectors**

Participants who had injected in the last six months reported injecting on a median of 13 occasions in that period (range=1–90), which equates to approximately once a fortnight. Methamphetamine and steroids were the drugs most commonly injected in the past six months (50% respectively).

Only one participant (25%) reported that they had injected while under the influence and/or coming down from ERD in the preceding six months and they had done so on six occasions.

### **7.1.2 Context of injecting**

Participants reported obtaining needles mainly from a Clean Needle Program (50%; n=2), followed by a chemist (25%; n=1) and friend (25%; n=1). Participants were able to nominate more than one source.

The majority of participants who had injected usually did so with close friends (75%; n=3), with one participant reporting that they usually injected on their own (25%). All participants who had recently injected reported having injected at their own home (100%; n=4).

### **7.1.3 Sharing of needles/syringes and other injecting equipment**

In 2014, there were no participants who had shared needles or any other injecting equipment.

## **7.2 Sexual risk behaviour**

Participants were asked to provide information regarding their sexual behaviour and the risks associated with it. Participants were given the opportunity to self-administer this section of the questionnaire if they preferred to. ‘Sex’ was defined as penetrative sex; that is, the penetration of the vagina or anus with the penis, hand or sex toys.

### **7.2.1 Recent sexual activity**

Table 43 summarises the reports of recent sexual activity and condom use with casual partners. Fifty-nine percent of the sample reported having casual sex with at least one casual partner in the six months preceding interview. Fourteen percent reported having one casual sexual partner during the preceding six months and 45% reported having multiple casual partners. Participants were asked about the use of ‘protective barriers’ which were defined as ‘condoms, dams or gloves’, with casual partners. As can be seen in Table 43, the use of protective barriers was mixed, with 46% of the sample reporting that they had not used protection the last time they had sex while sober. The main reasons for not using protection in such encounters were: agreed not to (n=8), using a contraceptive pill (n=7), participant did not wish to use (n=4), it wasn’t mentioned (n=3) or lack of availability (n=2).

**Table 43: Prevalence of sexual activity and number of sexual partners in the preceding six months, 2013 & 2014**

|                                                                         | 2013           | 2014           |
|-------------------------------------------------------------------------|----------------|----------------|
| <b>No. casual sexual partners (%)</b>                                   | <b>(N=100)</b> | <b>(N=100)</b> |
| No casual partner                                                       | 30             | 41             |
| 1 person                                                                | 22             | 14             |
| 2 people                                                                | 15             | 8              |
| 3–5 people                                                              | 26             | 23             |
| 6–10 people                                                             | 6              | 10             |
| 10 or more                                                              | 1              | 4              |
| <b>Use of protection during sex with casual partner when sober* (%)</b> | <b>(n=70)</b>  | <b>(n=59)</b>  |
| Yes                                                                     | 49             | 41             |
| No                                                                      | 44             | 46             |
| Not applicable                                                          | 7              | 14             |

**Source:** EDRS participant interviews

\*Among those who had had casual sex

## 7.2.2 Drug use during sex

Table 44 summarises the reports of recent sexual activity and condom use while under the influence of a drug or drugs, in the last six months. The majority (86%) of those reporting recent penetrative sex with a casual partner reported that they had had penetrative sex with a casual partner whilst under the influence of alcohol and/or drugs, in the six months prior to interview. Interestingly, the large majority (88%) of these participants reported doing so on multiple occasions, with 22% reporting that they had done so on more than ten occasions.

Most commonly, participants nominated alcohol as the drug they were under the influence of when engaging in penetrative sex with a casual sex partner recently (75%), followed by ecstasy (43%) and cannabis (31%) (see Table 44).

Just over half of participants (55%) who had had recent penetrative sex with a casual partner whilst under the influence of drugs reported that they had used protection, whilst the remaining half (45%) reported that they had not used protection. The main reasons for not using protection whilst on drugs included: agreed not to (n=7), using a contraceptive pill (n=6), lack of availability (n=4), it wasn't mentioned (n=3) or participant didn't want to (n=3).

**Table 44: Drug use during sex with a casual partner in the preceding six months, 2013 & 2014**

|                                                                                                  | 2013<br>n=70 | 2014<br>n=59 |
|--------------------------------------------------------------------------------------------------|--------------|--------------|
| <b>Penetrative sex with casual partner while on drugs (%)<sup>* #</sup></b>                      | <b>93</b>    | <b>86</b>    |
| <b>No. times had sex while on drugs with casual partner (%)</b>                                  | <b>n=65</b>  | <b>n=51</b>  |
| Once                                                                                             | 8            | 12           |
| Twice                                                                                            | 22           | 22           |
| 3–5 times                                                                                        | 32           | 31           |
| 6–10 times                                                                                       | 19           | 14           |
| Eleven +                                                                                         | 20           | 22           |
| <b>Drugs used during last sexual episode</b>                                                     | <b>n=65</b>  | <b>n=51</b>  |
| Ecstasy                                                                                          | 66           | 43           |
| Alcohol                                                                                          | 49           | 75           |
| Cannabis                                                                                         | 39           | 31           |
| Methamphetamine – powder                                                                         | 3            | 0            |
| Methamphetamine – base                                                                           | 0            | 0            |
| Methamphetamine – crystal                                                                        | 12           | 10           |
| Cocaine                                                                                          | 3            | 8            |
| LSD                                                                                              | 2            | 0            |
| Ketamine                                                                                         | 0            | 0            |
| Mushrooms                                                                                        | 2            | 2            |
| Amyl nitrate                                                                                     | 2            | 0            |
| Nitrous oxide                                                                                    | 2            | 0            |
| GHB                                                                                              | 2            | 2            |
| Pharmaceutical stimulants                                                                        | 0            | 2            |
| Other opiates                                                                                    | 2            | 0            |
| Benzodiazepines                                                                                  | 3            | 0            |
| <b>Use of protection during sex with casual partner under influence of drugs (%)<sup>#</sup></b> | <b>n=65</b>  | <b>n=51</b>  |
| Yes                                                                                              | 49           | 55           |
| No                                                                                               | 51           | 45           |
| Not applicable                                                                                   | 0            | 0            |

**Source:** EDRS participant interviews

<sup>\*</sup> In the six months preceding interview

<sup>#</sup> Of those who had sex with a casual partner

### 7.2.3 Sexual health

The majority of participants reported having had a sexual health check-up within their lifetime (59%), and of these participants 21% had ever been diagnosed with a sexually transmitted infection (Table 45). Five participants reported being diagnosed with an STI in the past year, the majority of which had been diagnosed with chlamydia.

**Table 45: Sexual health check-ups and diagnosis, 2013 & 2014**

|                                                    | 2013          | 2014          |
|----------------------------------------------------|---------------|---------------|
| <b>Sexual health check-up (lifetime) %</b>         | <b>(n=93)</b> | <b>(n=99)</b> |
| No                                                 | 42            | 40            |
| Yes (last year)                                    | 39            | 39            |
| Yes (>year ago)                                    | 19            | 20            |
| <b>Diagnosed with STI (lifetime)<sup>#</sup> %</b> | <b>(n=54)</b> | <b>(n=59)</b> |
| No                                                 | 89            | 80            |
| Yes, in last year                                  | 4             | 9             |
| Yes, >year ago                                     | 7             | 12            |
| Don't know/didn't get result                       | 0             | 0             |

**Source:** EDRS participant interviews

<sup>#</sup> Of those who had ever had a sexual health check up

## 7.3 The Alcohol Use Disorders Identification Test (AUDIT)

The AUDIT (Saunders et al., 1993) was completed by RPU participants in the EDRS for the seventh year running. The AUDIT was designed by the World Health Organization (WHO) as a brief screening scale to identify individuals with alcohol problems, including those in the

early stages. It is a ten-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 et al., 2000).

Table 47 presents an overview of the AUDIT scores. The overall mean score on the AUDIT was 14.7 (range=3–35; SD=6.2), and there were no significant differences in female and male AUDIT scores. Eighty-nine percent of the sample scored eight or more, which are levels at which alcohol intake may be considered hazardous; again there were no significant differences between male and female participants.

The total AUDIT score places respondents into one of four 'zones' or risk levels. In 2014, 11% scored in Zone 1 (low-risk drinking or abstinence), 44% scored in Zone 2 (alcohol use in excess of low-risk guidelines), 25% scored in Zone 3 (harmful or hazardous drinking) and 20% scored in Zone 4 (those in this zone may be referred to evaluation and possible treatment for alcohol dependence). This was stable from 2013.

**Table 46: AUDIT total scores and proportion of RPU scoring above recommended levels indicative of hazardous alcohol intake, 2013 & 2014**

|                        | 2013   | 2014   |
|------------------------|--------|--------|
| Mean AUDIT total score | 14.8   | 14.7   |
| SD                     | 6.9    | 6.2    |
| (range)                | (0–31) | (3–35) |
| Score 8 or above (%)   | 86     | 89     |
| Zone 1                 | 14     | 11     |
| Zone 2                 | 43     | 44     |
| Zone 3                 | 20     | 25     |
| Zone 4                 | 22     | 20     |

**Source:** EDRS participant interviews. Note: Zone 1 refers to low risk drinking or abstinence; Zone 2 consists of alcohol use in excess of low-risk guidelines; Zone 3 may refer to harmful or hazardous drinking; and Zone 4 may be indicative of those warranting evaluation or treatment for alcohol dependence

## 7.4 Stimulant dependence

The question as to whether it is possible to be dependent on ecstasy is a controversial one. It has been traditionally believed that dependence on MDMA (the active ingredient in ecstasy) is unlikely given the relatively infrequent use patterns exhibited by ecstasy users (i.e. fortnightly or weekly). There are, however, clear case studies in the literature of people who are dependent on ecstasy, and 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 US 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 RPU interviewed in the EDRS. However, findings in relation to ecstasy dependence should be interpreted with caution due to the fact that there has been limited research into this syndrome (Degenhardt, Bruno & Topp, 2010).

From 2011–2013, participants of the EDRS have been asked questions from the Severity of Dependence Scale (SDS) adapted to investigate ecstasy dependence. In 2014, the SDS was broadened to include any stimulant, including cocaine, methamphetamine and

pharmaceutical stimulants. 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.

Despite the broadened criteria, the majority of individuals in SA answered the SDS questions in relation to ecstasy (64%). Ten percent of RPU answered the SDS in relation to their methamphetamine use, and only small numbers answered in relation to cocaine (3%) or pharmaceutical stimulants (2%). The remaining participants (18%) were not referring to a particular type of stimulant

#### **7.4.1 Ecstasy dependence**

Two cut-off scores are presented below of 3 or more and 4 or more. A cut-off score of 3 or more was used as these scores have been recently found in the literature to be a good balance between sensitivity and specificity for identifying problematic dependent ecstasy use (Bruno, Gomez & Matthews, 2011). Amongst those answering the SDS in relation to their ecstasy use, 30% obtained a score of 3 and above. The cut off score of 4 and above is a more conservative estimate which has been used previously in the literature as a validated cut-off for methamphetamine dependence (Topp & Mattick, 1997; Bruno et al., 2009). Sixteen percent of RPU participants scored 4 or above. There were no significant gender differences amongst those who scored 3 or 4 or above.

The median SDS score was 1 (range=0–9). Over one-quarter of the sample (27%) obtained a score of zero on the ecstasy SDS, and 25% obtained a score of 1 on the scale. This indicates that a little over half of the sample (52%) reported no or few symptoms of dependence in relation to ecstasy use. These findings are supported by the fact that the majority of participants (67%) reported that they ‘never or almost never’ felt that their use of ecstasy was out of control and 77% reported that they would find it ‘not difficult to stop or miss a prospective dose of ecstasy’.

#### **7.4.2 Methamphetamine dependence**

A cut-off score of 4 or more has been shown to be a good indicator of amphetamine dependence as defined by the DSM-IV (Topp & Mattick, 1997).

Of the ten individuals who answered the SDS in relation to their methamphetamine use, five participants (50%) obtained a score of 4 or above. The median SDS score was 3.5 (range=1–13).

Due to small numbers ( $n < 10$ ), findings in relation to pharmaceutical stimulants and cocaine dependence will not be discussed here.

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

### Key Findings

- In 2014, the proportion of participants who had engaged in a criminal offence in the month prior to interview increased (albeit non-significantly) to 43%.
- Drug dealing remained the most commonly reported crime. There was, however, a significant increase in the proportion of REU who had committed a property crime in the month preceding interview.
- Five percent of RPU reported that they had been arrested in the past year, stable from 2013.
- Arrests made by SA police increased for amphetamine-type stimulants and cocaine, whilst cannabis-related arrests declined slightly.

### 8.1 Reports of criminal activity among RPU

Table 48 summarises participants' reports of criminal activity in the month prior to interview, arrests in the 12 months prior to interview and lifetime prison history, over the past five years. In 2014, 43% of participants reported involvement in some type of crime in the month prior to interview, which was a non-significant increase from 2013. Drug dealing was the most commonly reported crime across all years of the survey; however, in 2014 there was a significant increase in the proportion of REU who had committed a property crime in the past month (7% in 2013 versus 19% in 2014;  $p < 0.05$ ; 95% CI: -0.22 – -0.03). Few participants reported involvement in a fraud or violent crime in the month prior to interview.

**Table 47: Criminal activity in the month prior to interview, as reported by participants, 2010–2014**

|                                         | 2010<br>(N=92) | 2011<br>(N=76) | 2012<br>(N=92) | 2013<br>(N=100) | 2014<br>(N=100) |
|-----------------------------------------|----------------|----------------|----------------|-----------------|-----------------|
| <b>Criminal activity in last month:</b> |                |                |                |                 |                 |
| Property crime                          | 4              | 20             | 16             | 7               | <b>19*</b>      |
| Drug dealing                            | 19             | 33             | 28             | 22              | <b>29</b>       |
| Fraud                                   | 4              | 4              | 1              | 3               | <b>1</b>        |
| Violent crime                           | 4              | 11             | 7              | 4               | <b>3</b>        |
| Any crime                               | 22             | 46             | 45             | 32              | <b>43</b>       |
| <b>Arrested in last 12 months</b>       | 12             | 16             | 15             | 11              | <b>5</b>        |
| <b>Ever in prison</b>                   | 6              | Not asked      | 7              | 3               | <b>4</b>        |

Source: EDRS participant interviews

\* $p < 0.05$

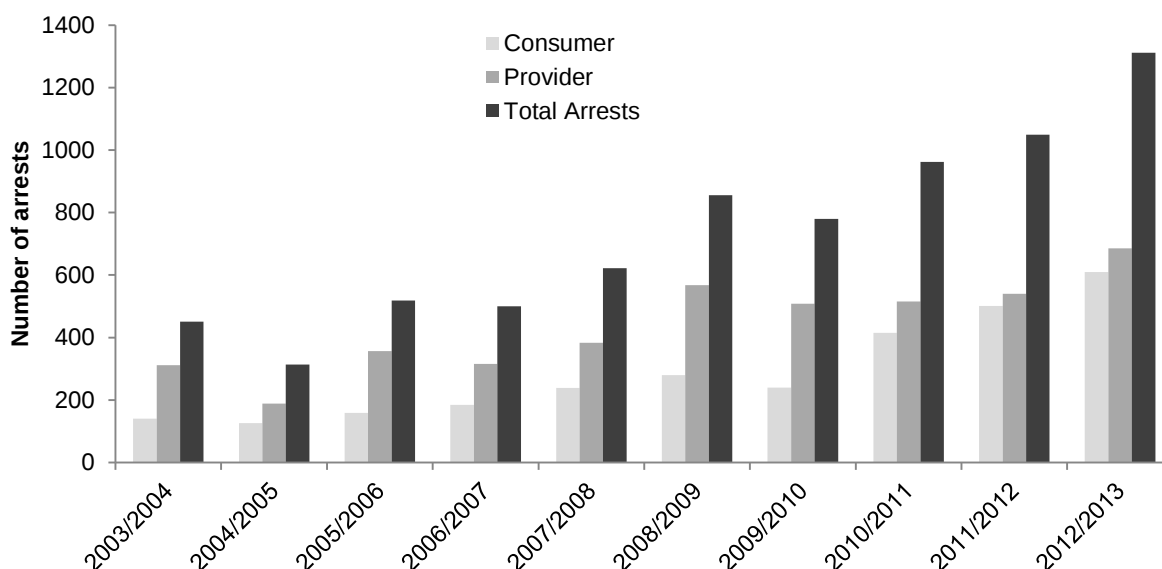
## 8.2 Arrests

Five percent of RPU reported that they had been arrested within the last 12 months, which is relatively stable from 2013. The reasons for arrest were varied and included driving offences (n=2), use/possession of drugs (n=1), property crime (n=1), fraud (n=1) and being drunk and disorderly (n=1). Due to the very small numbers presented here, it is not possible to make any meaningful comparisons with the 2013 data.

### 8.2.1 Amphetamine-type stimulants

Figure 34 presents the number of consumer and provider arrests for amphetamine-type stimulants made in SA between 2003/04 and 2012/13. Amphetamine-type stimulants include amphetamine, methamphetamine and phenethylamines. The ACC classifies consumers as offenders who are charged with user-type offences (e.g. possession and use of illicit drugs), whereas providers are offenders who are charged with supply-type offences (e.g. trafficking, selling, manufacture or cultivation). The number of total arrests increased in 2012/13 (to 1,312), continuing an overall upward trend that has been observed since 2004/05.

**Figure 34: Number of amphetamine-type stimulants consumer and provider arrests, 2003/04–2012/13**



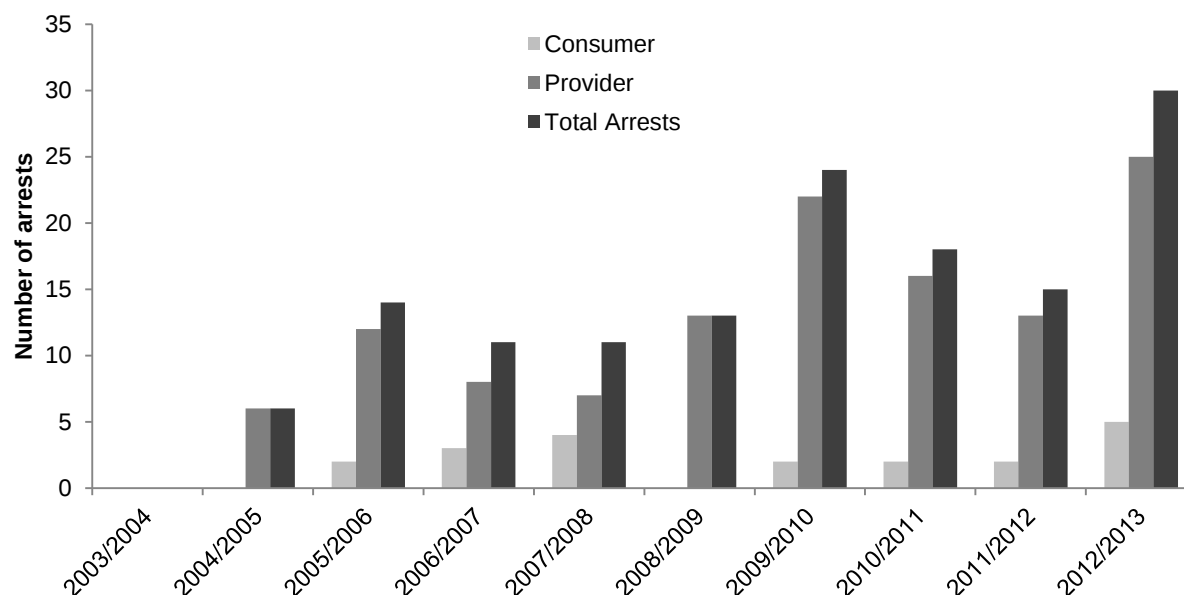
**Source:** Australian Crime Commission, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014

Note: Data not available for the 2013/14 financial year. Also, total arrests includes those offenders for whom consumer/provider status was not stated and thus may exceed the sum of consumer and provider arrests

## 8.2.2 Cocaine

Figure 34 presents the number of consumer and provider arrests for cocaine made in SA between 2003/04 and 2012/13. As can be seen, total cocaine-related arrests doubled in 2012/13 (to 30); however, this remains low when compared to other drug-related arrests.

**Figure 35: Number of cocaine consumer and provider arrests, 2003/04–2012/13**



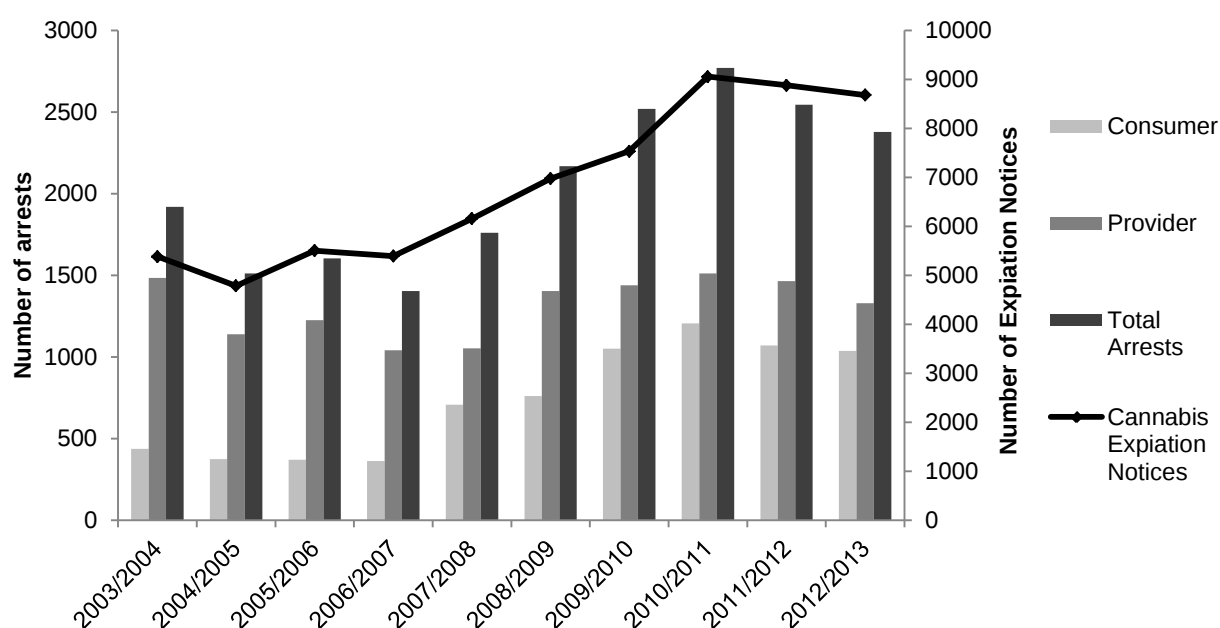
**Source:** Australian Crime Commission, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014

Note: Data not available for the 2013/14 financial year. Also, total arrests includes those offenders for whom consumer/provider status was not stated and thus may exceed the sum of consumer and provider arrests

## 8.2.3 Cannabis

Figure 36 presents the number of cannabis consumer and provider arrests in SA from 2003/04 to 2012/13. It also presents the total number of Cannabis Expiation Notices, which is a small fine used to deal with minor cannabis offences, whereby the offence is expiated on payment of the fine. In SA, a higher number of drug-specific arrests were due to provider-type cannabis offences. Total cannabis arrests decreased slightly in 2012/13, signifying a plateauing of the upward trend observed from 2006/07–2010/11. The number of Cannabis Expiation Notices issued in SA also decreased slightly, from 8,878 in 2011/12 to 8,677 in 2012/13.

**Figure 36: Number of cannabis consumer and provider arrests, 2003/04–2012/13**



**Source:** Australian Crime Commission, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014

Note: Data not available for the 2013/14 financial year. Also, total arrests includes those offenders for whom consumer/provider status was not stated and thus may exceed the sum of consumer and provider arrests

## 9 SPECIAL TOPICS OF INTEREST

### Key Findings

#### *Dark web marketplaces*

- Over half (55%) of RPU reported having friends that had purchased a drug online in their lifetime.
- Eighteen percent of RPU reported that they had ever purchased a drug online, and 15% had purchased a drug online in the year preceding interview. Participants most commonly reported purchasing drugs from the Silk Road, from both Australian and international retailers.
- The most common drugs purchased online were ecstasy, NBOMe, LSD and cannabis.
- Participants who had purchased drugs online reported that they had done so because the drugs were of a higher quality and they were cheaper.

#### *NPS health policy*

- Knowledge regarding the legality of 2CB, 2CI, DMT and mephedrone was mixed. Although few participants believed that any of these substances were legal, large portions of the sample reported that they were unsure of their legal status.
- The overwhelming majority of RPU reported that making all NPS illegal would not change their behaviour, either in regards to initiation or continuation of use.
- Amongst those who had used an NPS in their lifetime, the most common NPS last used by participants were NBOMe, DMT and 2C-x.
- The most motivating factors for using an NPS were: high level of purity compared to traditional illegal stimulants, good value for money and the perception that it would produce a better high than traditional illegal stimulants.

### 9.1 Use of dark web marketplaces

The rise of the Internet as an integral part of daily life has globalised retail marketing. This extends to web stores offering a range of substances that mimic the effects of traditional illicit substances such as ecstasy, amphetamines and cannabis (termed here new psychoactive substances, or NPS). This market is also highly dynamic, with websites closing or altering available stock as legislation changes (Bruno, Poesiat & Matthews, 2013; Van Buskirk et al., 2014).

In addition to the surface web, readily accessible by search engines such as Google, new marketplaces have emerged located on the 'dark web', that offer a range of illicit and pharmaceutical drugs for sale (Van Buskirk et al., 2013). The 'dark web' refers to a collection of domains accessible only through an anonymised routed connection and specially configured browser. As such, these dark web marketplaces are not overt and are susceptible to closure due to changes in legislation (Barratt, 2012). The marketplaces on the 'dark web' have proliferated in the past three years, retailing not only NPS, but also traditional illicit

substances including marijuana and pharmaceuticals such as benzodiazepines prescription opioids (Van Buskirk et al., 2013). The Silk Road is one such marketplace operating on the 'dark web' that has received a large amount of attention from law enforcement, media and researchers. Until its closure on October 2 2013, the Silk Road marketplace served to greatly expand the availability of both illicit drugs and NPS online.

On both the dark web and the surface web, there exist both 'webstores' and 'online marketplaces' from which to purchase substances. Webstores refer to websites that sell products or services and typically have an online shopping cart associated with it. Online marketplaces, however, refer to a type of online community where products are traded by users of the website instead of being sold by the owner or moderator of the website. Products on online marketplaces are sold by retailers either based in Australia, or internationally. Prices from international retailers are typically lower but carry with them a greater risk of detection by law enforcement during importation (Van Buskirk et al., 2013).

While it is apparent that availability of illicit drugs and NPS has increased since the arrival of dark web marketplaces, it is not clear to what extent consumers utilise these marketplaces for the purchase of drugs. The aim of this model is therefore to ascertain how often EDRS participants utilise online marketplaces and webstores for the purchase of drugs, as well as what substances are commonly bought and the positives and negatives of using these marketplaces and stores over traditional street markets.

Participants were asked what proportion of their friends had ever purchased a drug online. Just under half (48%) responded that 'a few' of their friends had purchased online before. Fewer numbers reported that 'about half' or 'most' of their friends had purchased online (3% respectively); only one participant responded that 'all' of his/her friends had ever purchased substances online. Eighteen percent of participants responded that they themselves had ever purchased online, most commonly from the Silk Road (83%), followed by surface web marketplaces (e.g. eBay or Gumtree; 17%), internationally-based webstores (6%) and other dark web marketplaces (6%). Among those purchasing from dark web marketplaces (n=15), 40% bought only from retailers based outside of Australia, 20% bought only from Australian retailers, and 40% bought from both.

Fifteen participants (15% of the total sample) had purchased a substance online in the past year. Amongst these participants, over one-third (36%) reported that they had purchased a substance online '3-5 times' in the last year, whilst equal proportions of the remaining participants reported purchasing 'once', 'twice' and 'more than 5 times' in the last year (21% respectively). The majority of these participants (87%) purchased from the Silk Road, 13% from a surface web marketplace and 7% from another dark web marketplace other than the Silk Road. Amongst those using dark web marketplaces (n=13), the largest proportion bought from both international and Australian retailers (46%; n=6), 31% (n=4) bought only from international retailers and 23% (n=3) bought only from Australian retailers. Table 48 below details the specific substances purchased by EDRS participants in the past year.

**Table 48: Substances purchased online in the past year by EDRS participants**

| <b>Illicit Drugs</b>                                 | <b>SA<br/>n=14</b> | <b>%</b> | <b>New Psychoactive Substances</b> | <b>SA<br/>n=14</b> | <b>%</b> |
|------------------------------------------------------|--------------------|----------|------------------------------------|--------------------|----------|
| Ecstasy (any form)                                   | 8                  | 57%      | Mephedrone                         | 1                  | 7%       |
| Methamphetamine (any form)                           | 2                  | 14%      | Methylone/bk-MDMA                  | 1                  | 7%       |
| Pharmaceutical stimulants                            | 0                  | 0%       | MDPV/Ivory wave                    | 0                  | 0%       |
| Cocaine                                              | 2                  | 14%      | MDAI                               | 0                  | 0%       |
| LSD (acid)                                           | 4                  | 29%      | Benzo fury (6-APB)                 | 0                  | 0%       |
| Mushrooms                                            | 1                  | 7%       | Methoxetamine (MXE)                | 0                  | 0%       |
| MDA                                                  | 0                  | 0%       | 2C-x (2C-B, 2C-I, 2C-E)            | 0                  | 0%       |
| Ketamine (special K)                                 | 0                  | 0%       | DMT                                | 0                  | 0%       |
| GHB/GBL, 1, 4B (liquid E)                            | 0                  | 0%       | 5-MeO-DMT                          | 0                  | 0%       |
| Cannabis                                             | 3                  | 21%      | LSA (Hawaiian Baby Woodrose)       | 0                  | 0%       |
| Opioids (e.g. heroin, opium)                         | 0                  | 0%       | DOI (death on impact)              | 0                  | 0%       |
| Pharmaceutical opioids<br>(e.g. oxycodone, morphine) | 0                  | 0%       | Mescaline                          | 0                  | 0%       |
| Antidepressants                                      | 0                  | 0%       | Salvia divinorum                   | 0                  | 0%       |
| Benzodiazepines<br>(e.g. valium/ serepax/xanax)      | 1                  | 7%       | Datura (angel's trumpet)           | 0                  | 0%       |
| Steroids or PIEDs                                    | 0                  | 0%       | NBOMe (25I, 25B, 25C)              | 4                  | 29%      |
| Antipsychotics (e.g. Seroquel)                       | 0                  | 0%       | Synthetic cannabinoids             | 0                  | 0%       |
| Other                                                | 3                  | 21%      | Other                              | 0                  | 0%       |

**Source:** EDRS interviews, 2014

The majority of respondents (87%; n=13) indicated that their online purchases were for 'themselves and others' with 13% (n=2) of participants indicating purchasing solely for themselves. The majority of respondents (71%) reported that their last ordered package arrived as expected, with the remaining participants (29%; n=4) reporting that they hadn't received their package yet. Table 49 below illustrates the motivating factors respondents gave for purchasing online, as well as nominated positives and negatives of purchasing online.

**Table 49: Motivating factors, as well as positive and negatives for purchasing online**

|                                                | SA<br>(n=15) | %  |
|------------------------------------------------|--------------|----|
| <b>Main motivation for purchasing online</b>   |              |    |
| Curiosity                                      | 1            | 7  |
| Drugs I wanted weren't available on the street | 1            | 7  |
| Drugs were cheaper online                      | 5            | 33 |
| Convenience                                    | 0            | 0  |
| Drugs are better quality online                | 7            | 47 |
| Other                                          | 1            | 7  |
| <b>Positives of purchasing online</b>          |              |    |
| No positives                                   | 1            | 7  |
| Accessed drugs I couldn't get on the street    | 6            | 40 |
| Drugs were cheaper online                      | 8            | 53 |
| Avoided contact with dealers                   | 4            | 27 |
| Convenience                                    | 6            | 40 |
| Drugs were better quality online               | 10           | 67 |
| Less legal risk buying online                  | 2            | 13 |
| Other                                          | 3            | 20 |
| <b>Negatives of purchasing online</b>          |              |    |
| No negatives                                   | 0            | 0  |
| Difficult process                              | 1            | 7  |
| Slow process                                   | 6            | 40 |
| More legal risk purchasing online              | 1            | 7  |
| Poorer quality of drugs                        | 0            | 0  |
| More expensive                                 | 1            | 7  |
| Packages didn't arrive                         | 7            | 47 |
| Other                                          | 3            | 20 |

Source: EDRS participant interviews

Seven of the 15 participants (47%) indicated that they would 'definitely' purchase online again in the future, with six of the remaining eight indicating a likelihood of  $\geq 5$  out of 10.

## 9.2 NPS health harms

The past 10 years has seen the emergence of a range of substances that mimic illicit stimulants and hallucinogens such as amphetamines, ecstasy and LSD – often referred to collectively as 'new psychoactive substances' (NPS). As they are designed to be structurally similar to their banned counterparts, without containing controlled substances, they do not fall readily under legislative control and some have been marketed as 'legal highs'. The promotion of these substances as 'legal highs', together with the fact that they can be bought over the Internet, over the counter, and in shop fronts in Australia has made them accessible to people who may not have used illicit drugs previously, and also gives the illusion of safety. However, the safety or otherwise of these substances is unclear, and there is little evidence on which to base public policies relating to these substances. Indeed, the health and social consequences of these drugs remain poorly understood in Australia, and internationally. This module has therefore been included to improve our knowledge and understanding of the use and effects of NPS. Participants were asked if they had experienced a particular effect whilst using NPS, and were then asked to rate the severity ('mild', 'moderate' or 'severe') of that experience. However, due to small numbers ( $n < 10$ ), jurisdictional findings will not be presented in this report; for national findings please refer to Sindicich & Burns (2015).

### 9.3 NPS health policy

In 2013, South Australia introduced legislation which prohibits the supply, manufacture or advertisement of any psychoactive substance (subject to appropriate exemptions). This translates to a blanket ban on possessing and supplying any NPS, and as such we were interested in finding out what people understand the law to be at the moment and whether this change in legislation has an effect on people's usage of these substances.

The drugs we asked about in the 2014 survey were 2CB, 2CI, DMT and mephedrone, all of which are illegal in SA with varying legality in the other states. These substances were selected as they were the most commonly reported in the 2013 EDRS. As can be seen in Table 50, knowledge regarding the legality of these substances was quite mixed. Although few participants believed that any of these substances were legal, large portions of the sample reported that they were unsure of their legal status.

**Table 50: Participant knowledge of the legality of NPS in SA, 2014**

|                   | SA<br>(N=100) |
|-------------------|---------------|
| <b>2CB</b>        |               |
| Legal             | 2             |
| Illegal           | 52            |
| Unsure            | 47            |
| <b>2CI</b>        |               |
| Legal             | 1             |
| Illegal           | 43            |
| Unsure            | 56            |
| <b>DMT</b>        |               |
| Legal             | 0             |
| Illegal           | 70            |
| Unsure            | 30            |
| <b>Mephedrone</b> |               |
| Legal             | 1             |
| Illegal           | 47            |
| Unsure            | 53            |

Source: EDRS participant interviews

Participants were also asked if whether a change to the legality of all NPS in the future, making them all illegal, would impact on their use of those substances. Ninety-two percent reported that making NPS illegal would not change their behaviour, whilst the remaining 8% reported that it would make it them stop or not start using NPS.

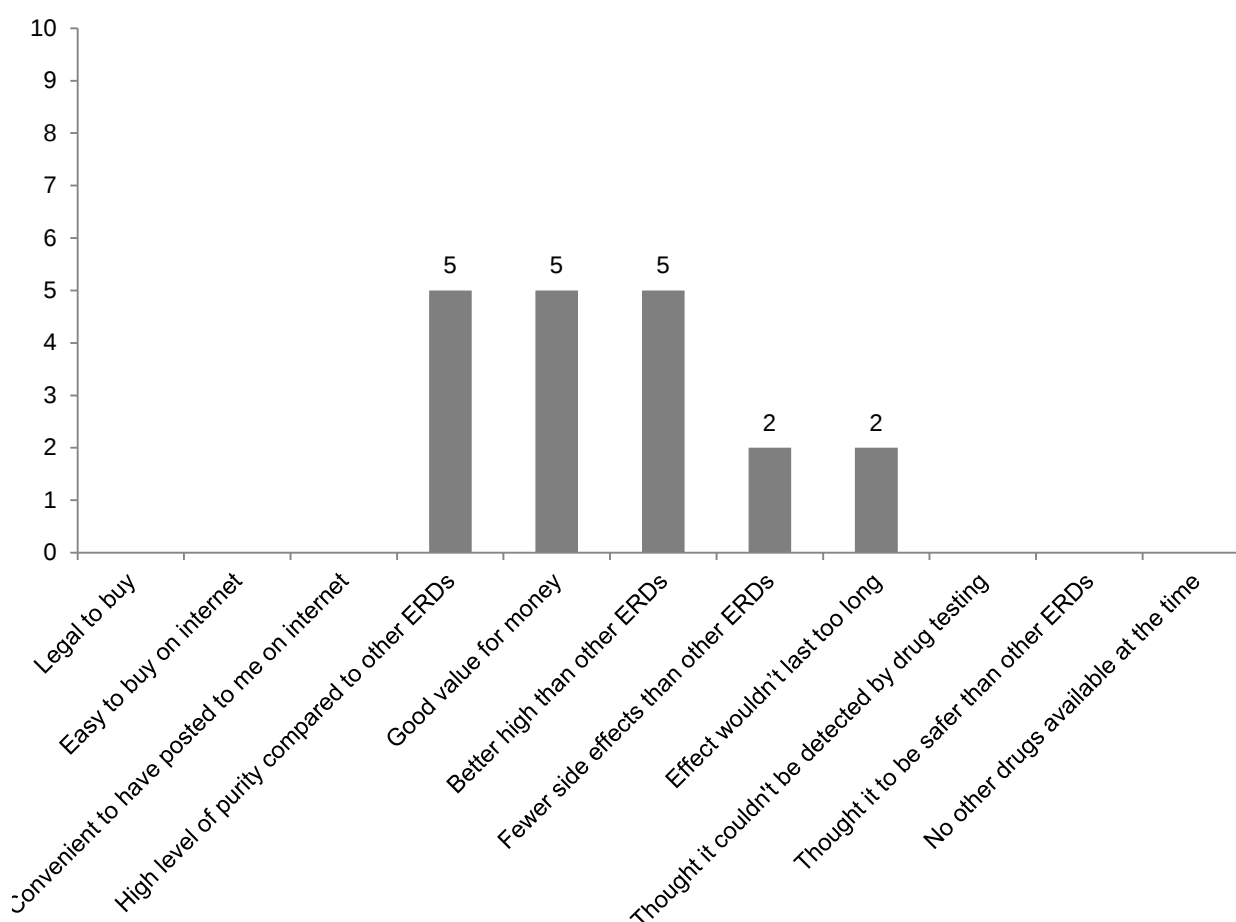
Amongst those who had used an NPS in their lifetime, the most common NPS last used by participants were NBOMe (23%), DMT (23%) and 2C-x (20%). Table 51 also shows the median length of time since participants last used an NPS.

**Table 51: Last occasion of NPS use, 2014**

|                            | SA         |
|----------------------------|------------|
| <b>Last NPS use</b>        | (n=60)     |
| Mephedrone                 | 2          |
| Benzo fury                 | 2          |
| PMA                        | 7          |
| 2C-x                       | 20         |
| DMT                        | 23         |
| LSA                        | 0          |
| Mescaline                  | 8          |
| Salvia                     | 2          |
| NBOMe                      | 23         |
| Synthetic cannabinoids     | 7          |
| Other                      | 7          |
| <b>Last used an NPS</b>    |            |
| Days ago (median; range)   | 4.5 (2-10) |
| Weeks ago (median; range)  | 2 (1-10)   |
| Months ago (median; range) | 5 (1-60)   |

**Source:** EDRS participant interviews

For those that had ever used an NPS, participants were asked to rate (from 0–10, whereby 0 is no influence and 10 is maximum influence) how motivating certain factors were in their occasion of NPS use. The median ratings for each of these factors are reported below in Figure 37. As can be seen, the most motivating factors for using an NPS were: high level of purity compared to traditional illegal stimulants, good value for money and the perception that it would produce a better high than traditional illegal stimulants.

**Figure 37: Median ratings of motivating factors for using NPS, 2014**

**Source:** EDRS participant interviews

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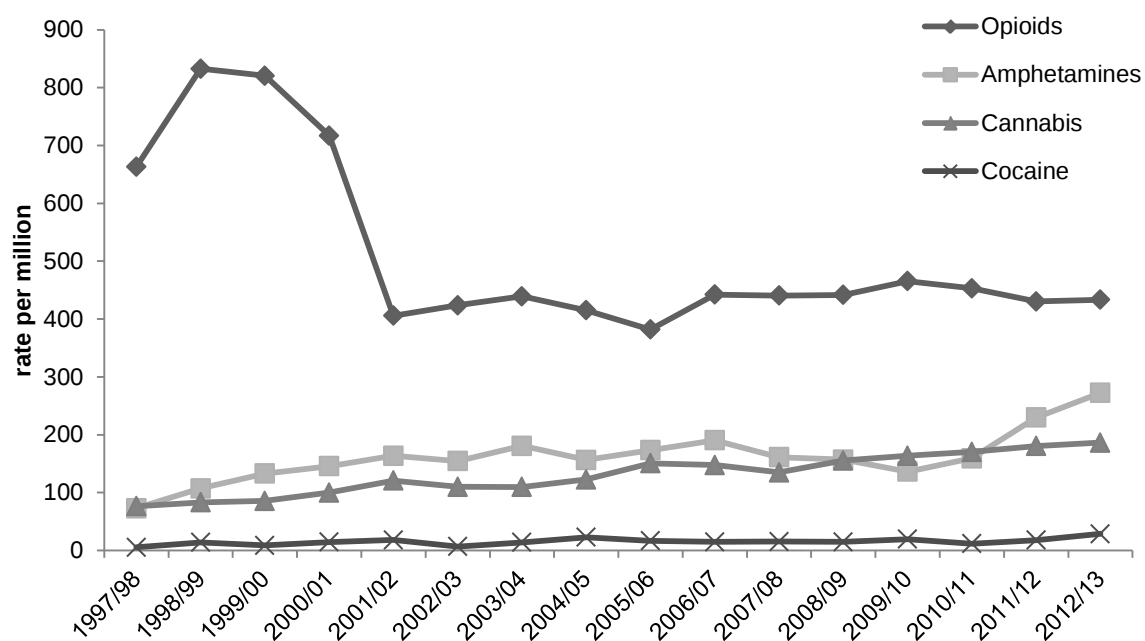
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## APPENDIX I: RATE OF SUBSTANCE-RELATED ADMISSIONS\* (PRIMARY DIAGNOSIS) TO HOSPITAL IN AUSTRALIA, 1997/1998–2012/13



**Source:** Australian Institute of Health and Welfare

\* For persons aged between 15 and 54 years

Note: 'primary diagnosis' was given to those admissions where the substance was considered the primary reason for the patient's episode of care