

# Victorian Trends in Ecstasy and Related Drug Markets 2016: Findings from the Ecstasy and Related Drugs Reporting System (EDRS)

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**Arthur Truong, Paul Dietze & Belinda Lloyd**

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Ecstasy and related Drugs Reporting System  
(EDRS)**

**Australian Drug Trends Series No. 175**



# **VICTORIAN TRENDS IN ECSTASY AND RELATED DRUG MARKETS 2016**



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

**Arthur Truong, Paul Dietze and Belinda Lloyd**

**Burnet Institute**

**Australian Drug Trends Series No. 175**

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## ABBREVIATIONS

2C-B	4-bromo-2,5-dimethoxyphenethylamine
ACIC	Australian Crime and Intelligence Commission
ADIS	Alcohol and Drug Information Service
AIHW	Australian Institute of Health and Welfare
ATSI	Aboriginal and/or Torres Strait Islander
AUDIT	Alcohol Use Disorders Identification Test
BZP	1-Benzylpiperazine(s)
CE	Cognitive enhancing substance
DMT	Dimethyl tryptamine
DSM	Diagnostic and Statistical Manual of Mental Disorders
DXM	Dextromethorphan (cough syrup)
EDRS	Ecstasy and related Drugs Reporting System
ERD	Ecstasy and related drugs
GHB	Gamma-hydroxybutyrate
IDRS	Illicit Drug Reporting System
K10	Kessler Psychological Distress Scale (10-item)
KE	Key expert(s)
LSD	<i>d</i> -lysergic acid
MDA	3,4-methylenedioxyamphetamine
MDMA	3,4-methylenedioxymethamphetamine
MXE	Methoxetamine
NDARC	National Drug and Alcohol Research Centre
NDSHS	National Drug Strategy Household Survey
NHMD	National Hospital Morbidity Database
NPS	New psychoactive substances
REU	Regular ecstasy user(s)
RPU	Regular psychostimulant user(s)
SDS	Severity of Dependence Scale
SPSS	Statistical Package for the Social Sciences
STI	Sexually transmitted infection(s)
WHO	World Health Organization

## GLOSSARY OF TERMS

Binge	Use of alcohol and other drugs for 48 hours or more without sleep
Bump	An unfixed quantity, often referring to a small mound (e.g., on the corner of a plastic card or on the end of a key) that is snorted.
Illicit	In the EDRS context, illicit use of pharmaceutical drugs refers to those obtained with a prescription in someone else's name and are either purchased from a street dealer or obtained from a friend or partner
Key expert(s)	Also referred to as KE; participants of the Key Expert Survey component of the EDRS (see <i>Method</i> section for further details)
Licit	In the EDRS context, licit use of pharmaceutical drugs refers to those obtained with a prescription in the participant's name. This definition does not account for 'doctor shopping' practices; however, it differentiates between prescribed pharmaceuticals and those obtained without a prescription, e.g., drugs purchased from a street dealer or obtained from a friend or partner
Lifetime use	Use on at least one occasion in the participant's lifetime via one or more of the following routes of administration: injecting, shelving/shafting, smoking, snorting and swallowing.
Point	0.1 gram
Recent use	Use in the six months preceding interview via one or more of the following routes of administration: injecting, shelving/shafting (rectal), smoking, snorting and swallowing.
Tab	A small piece of blotting paper containing a drop of LSD ( <i>α</i> -lysergic acid) that is typically consumed orally.

## EXECUTIVE SUMMARY

This report presents the results from the fourteenth year of the Ecstasy and related Drugs Reporting System (EDRS), a study monitoring ecstasy and related drug (ERD) use and market trends in Melbourne, Victoria. It includes key findings from interviews with 100 regular psychostimulant users (RPU), key expert (KE) interviews and external indicator data. The 2016 EDRS Project was supported by funding from the Australian Government under the Substance Misuse Prevention and Service Improvement Grants Fund.

### Demographic characteristics of RPU

The mean age of participants interviewed as part of the 2016 RPU sample was 24 (unchanged from 2015). Other demographic characteristics were also consistent with those measured in 2015; RPU interviewed in 2016 were typically heterosexual, well educated, from an English-speaking background, and few reported being in drug treatment. For the first time in the history of EDRS, there were more females (53%) recruited than males (47%).

### Patterns of drug use among RPU

In addition to ecstasy, most RPU in 2016 reported having recently used alcohol, tobacco and cannabis, unchanged from 2015. The prevalence of reported recent use of ketamine (72% vs. 50%,  $p < 0.05$ ), GHB (14% vs. 9%,  $p < 0.05$ ) and benzodiazepines (52% vs. 34%,  $p < 0.05$ ) were significantly higher in 2016 than in 2015 while the prevalence of reported recent use of ecstasy powder (27% vs. 46%,  $p < 0.05$ ) was significantly lower.

### Ecstasy

Similar to previous years, the 2016 RPU sample reported first using ecstasy regularly at a mean age of 18 years, swallowing a median of two pills in a 'typical' episode of use and commonly using other drugs in conjunction with ecstasy (95%). In 2016, 44% of participants reported ecstasy as their main drug of choice ('favourite or preferred' drug) – a significantly larger proportion than in 2015 (25%,  $p < 0.05$ ) but consistent with the figure from 2014 (44%). Ecstasy pills remained as the most commonly used form of the drug (98% lifetime use, 91% recent use). The median price of one ecstasy pill was \$21.50, the lowest median ever recorded in the Victorian EDRS. There were more reports of 'high' ecstasy purity in 2016 when compared to 2015 (42% vs. 32% in 2015) with most participants reporting that it was 'stable' (39%). Very little has changed with regard to how easy it is to obtain – 59% of RPU reported that ecstasy was 'very easy' to obtain (62% in 2015) and 37% reported it to be 'easy' to obtain (36% in 2015). The majority of respondents also noted that the current availability of ecstasy remained 'stable' (72% vs. 73% in 2015). Most RPU interviewed in 2016 reported obtaining ecstasy from friends (59%) who were at a nightclub (29%) and spent the most time under the influence of the drug at the nightclub (60%) on their last occasion.

Victoria Police Forensic Services Department's analyses of ecstasy seizures show that the average purity increased from 29% in the 2014/2015 financial year to 32% in 2015/2016.

### Methamphetamine

RPU were asked about different forms of methamphetamine: speed, crystal methamphetamine and methamphetamine base. Reported consumption patterns for powder and crystal largely remained similar to 2015. The small number of respondents for base precluded further analysis.

RPU reported using a median of 0.2 gram of speed in a typical 'session' of use, consistent with 2015. Further, participants reported using speed on a median of three days in the last six months compared to two days in 2015. The price of speed also remained unchanged; RPU reported typically paying \$200 per gram of speed in 2016, consistent with the previous five years. Most participants perceived the purity of speed to be medium (52%). The majority (86%) of the 2015 EDRS sample reported that speed was either 'easy' or 'very easy' to obtain and that this had remained 'stable' (80%) in the six months preceding their interview. Participants reported that on the last occasion of use they most commonly obtained speed from friends (76%) who were at a nightclub (29%), and then spent the most time under the influence of the drug at the nightclub (48%).

In 2016, participants reported using a median of one and a half points of crystal methamphetamine in a typical 'session', consistent with 2015. The median reported days of use of crystal methamphetamine in the preceding six months increased from 10 days in 2015 to 15 days. The most commonly reported route of administration for crystal methamphetamine among RPU was smoking

(72%). The median reported price per point of crystal methamphetamine was \$40, a decrease from 2015 (\$50). In 2016, participants generally reported crystal methamphetamine purity as medium (52%) or high (29%) whilst all responding RPU reported that it was either 'easy' or 'very easy' (31% and 69% respectively) to obtain in the six months preceding their interview. RPU reported that on their last episode of use they most commonly purchased crystal methamphetamine from a friend (42%), at their friend's home (42%) and used it at their own home (46%).

Only five participants of the 2015 Victorian EDRS sample reported recent use of methamphetamine base and only one was able to respond to questions about price, purity and availability.

KE reported that methamphetamine use has remained prevalent and is most commonly in crystal form. Most KE included crystal methamphetamine as one of the drugs that they currently consider as most problematic due to its association with violent behaviour, health and mental health risks and its burden on the health care sector.

Victoria Police Forensic Services Department's analyses of methamphetamine seizures show that the average purity increased marginally from 75% in the 2014/2015 financial year to 75.5% in 2015/2016.

## **Cocaine**

In 2016, participants reported using a median of 0.2 gram of cocaine in a typical 'session' of use, similar to the median figure reported in 2015 (0.3 gram). RPU reported using cocaine on a median of two days in 2016 and all recent users reported snorting it (100%). The median reported price of a gram of cocaine in 2016 was \$300, consistent from 2013. Of the recent cocaine users who were able to comment, most perceived its current purity to be medium (53%). Further most RPU who were able to comment reported that cocaine was either 'easy' (38%) or 'very easy' (38%) to obtain. As in previous years, most RPU reported obtaining cocaine from friends (73%) who were at a nightclub (27%) and spent the most time under the influence of the drug at the nightclub (29%) on their last occasion.

Victoria Police Forensic Services Department's analyses of cocaine seizures during the 2015/2016 financial year show that the average purity was 48%, slightly lower than in 2014/2015 (50%).

## **Ketamine**

In 2016, a slightly higher percentage of RPU reported lifetime use of ketamine (84% vs. 73% in 2015) while a significantly higher percentage reported recent use (72% vs. 50% in 2015,  $p < 0.05$ ). Ketamine was used by RPU on a median of five days in the preceding six months, similar to 2015 (four days). Participants reported using a median of three bumps of ketamine during a typical 'session' of use. The median price per gram of ketamine decreased slightly to \$180 per gram. Of the participants who were able to comment, the majority perceived current ketamine purity to be high (43%) and stable (56%). Ketamine appears to be becoming easier to obtain in 2016 with a significantly larger proportion reporting that it was either 'easy' or 'very easy' to obtain when compared to 2015 (81% vs. 57% in 2015,  $p < 0.05$ ). A significantly larger proportion reported that the availability for ketamine was 'stable' in 2016 (71% vs. 35% in 2015,  $p < 0.05$ ). and a significantly lower proportion of participants reported that it was 'more difficult' to obtain (12% vs. 39% in 2015,  $p < 0.05$ ). The majority of responding RPU reported obtaining ketamine from friends (61%) who were at a nightclub (36%) and spent the most time under the influence of the drug at the nightclub (44%) on their last occasion.

## **Gamma-hydroxy-butyrate (GHB)**

The proportion of participants reporting recent use (14%) of GHB in 2016 was larger than 2015 but comparable to 2013 and 2014 (14% and 13% respectively). RPU reported recent GHB use on a median of four and a half days in the preceding six months. The median quantity used in a typical 'session' decreased slightly from 4.25ml in 2015 to 4ml in 2016. Only four participants of the 2016 Victorian EDRS sample were able to respond to questions about the price, purity and availability of GHB, precluding in-depth analysis.

## **LSD**

A significantly smaller proportion of RPU reported lifetime LSD use in 2016 (70% vs. 85% in 2015,  $p < 0.05$ ). Recent users of LSD reported irregular use of the drug on a median of two days in the preceding six months in 2016 and typically using one tab, comparable to the median figure reported in previous years. The median reported price per tab was \$20 in 2016 (vs. \$15 since 2011). Consistent with previous years, the majority of recent LSD users reported the purity of LSD as high (57%) and stable (78%). Further, most reported the availability of LSD as 'easy' or 'very easy' (71%) and that it

had remained stable (67%) and in 2016. Also similar to 2015, most of the responding RPU reported purchasing LSD from a friend (50%) who were at a 'live music event/concert/festival' (31%) and spent the most time under the influence of the drug at the 'live music event/concert/festival' (39%) on their last occasion.

## **Cannabis**

Reports of recent cannabis use remained common among RPU in 2016 (86%). Participants reported using cannabis on a median of 22 days in the last six months which was substantially less than the median of 65 days reported by RPU in 2015 with almost all (97%) recent users reporting smoking it. RPU reported typically paying \$15 for a gram of hydroponic cannabis and \$12.5 for a gram of bush cannabis and most noted that potency was either medium or high for both hydroponic (95%) and bush cannabis (93%). The majority (70%) of participants reported hydroponic cannabis potency to be stable in the preceding six months, as did most (92%) of the participants who were able to comment on the potency of bush cannabis, similar to 2015. Most participants also reported that both hydroponic and bush cannabis were either 'easy' or 'very easy' to obtain (100% and 86% respectively).

## **Alcohol**

As in previous years, all of the Victorian EDRS participants interviewed in 2015 reported lifetime use of alcohol, initiating drinking at a median age of 14 years, while 97% reported use in the preceding six months. This group of RPU reported drinking on a median of 48 days, comparable to previous years. A slightly smaller proportion reported drinking alcohol on the last occasion of ecstasy use when compared to 2015 (70% vs. 83% in 2015) with most (62%) reporting drinking more than five standard drinks. A significantly larger proportion reported drinking alcohol during a stimulant drug binge in 2016 than in 2015 (74% vs. 58% respectively,  $p < 0.05$ ).

## **Health and other issues**

Some RPU reported adverse consequences related to their drug consumption. One quarter (25%) of the 2016 RPU sample reported having overdosed on a stimulant drug in the preceding 12 months, a significantly higher proportion than in 2015 ( $n=14$ ,  $p < 0.05$ ). Participants noted ecstasy (68%) as the main drug associated with their most recent stimulant overdose. Recent depressant drug overdose was reported by 24% of participants in 2016 and was typically attributed to alcohol (73%). In 2016, RPU were administered the 10-item Kessler Psychological Distress Scale (K10) to measure the level of psychological distress experienced in the preceding four weeks; 42% were classified as experiencing moderate, 27% as high (vs. 14% in 2015,  $p < 0.05$ ) and 6% (vs. 13% in 2014,  $p < 0.05$ ) as very high psychological distress. Twenty-one per cent of respondents reported accessing a health or medical service in relation to their ERD use in the preceding six months.

In 2015, the Victorian specialist alcohol and other drug telephone counselling service DirectLine received calls identifying ecstasy (0.8%), amphetamine and/or other stimulants (7%), cocaine (0.8%) and cannabis (10.5%) as drugs of concern.

## **Risk behaviour**

Only 12% of REU in 2015 reported ever injecting a drug (8% in 2015). Five RPU reported injecting a drug in the preceding six months in 2016.

Sixty-four per cent of the 2016 EDRS sample reported recent penetrative sex with a casual partner in the past six months, and 39% of those who reported recent penetrative sex with a casual partner while not using alcohol or other drugs (57%) reported not using a condom the last time they had sex when sober. Forty-nine participants reported having had sex with a casual partner while under the influence of alcohol and/or drugs in the preceding six months. Among this group, 53% reported not using a condom with a casual partner the last time they had sex while under the influence.

The proportion (72%) of participants reporting ever having a sexual health check-up was similar to that in 2015 (64%). Eighteen per cent reported being diagnosed with a sexually transmitted infection at some point in their lifetime.

Risky alcohol use was measured among participants in 2016. Fifty-eight per cent of RPU scored eight or more on the World Health Organization's (WHO) Alcohol Use Disorders Identification Test (AUDIT) – a level at which alcohol intake is considered hazardous – lower than the figure measured in 2015 (67%).

## Law enforcement-related trends associated with ERD use

In 2016, five per cent of the RPU sample reported that they had been arrested in the past 12 months and 26% reported engaging in any type of crime in the preceding month, a significantly lower percentage when compared to 2015 (45%,  $p < 0.05$ ). Drug dealing and property crime were the most common types of crime reported by the RPU sample (14% and 19% respectively).

## Conclusions

The results reported here describe ERD use and trends in 2016 in Melbourne, Victoria, and enable comparisons with the findings of previous EDRS studies.

The key findings were as follows: reported recent use of ketamine, GHB and benzodiazepines increased significantly between 2015 and 2016 while the reported recent use of reported recent use of ecstasy powder significantly decreased. Methamphetamine use, both in powder and crystal form, remained stable. Pills remained as the most commonly used form of ecstasy and a significantly larger proportion reported it as their main drug of choice. Ketamine appears to have become easier to obtain in 2016, with a significantly higher percentage of respondents reporting it as either 'easy' or 'very' easy to obtain. Alcohol use during a stimulant drug binge was also significantly more prevalent among the 2016 RPU sample. Worryingly, significantly more RPU in the 2016 sample scored in the 'high' and 'very high' range on the 10-item Kessler Psychological Distress Scale (K10), after a significant increase in 'very high' range scores in 2015, indicating higher levels of distress experienced in the preceding four weeks. Crime was less prevalent among the 2016 sample, with a significantly lower percentage of RPU who reported engaging in crime in the month preceding their interview.

## Implications

Patterns of poly-drug use, binge drug use, the frequency and locations where drugs are reportedly used, and the availability of many drugs, have largely remained stable across the 14 years of data collection. Other findings, such as the harms related to NPS use, the emergence of new online marketplaces, possible return of high methamphetamine and ecstasy purity, high percentage of alcohol use (some at potentially harmful levels) evident in recent years, and criminal behaviour warrant further exploration. The EDRS has also provided unique information on a range of issues of relevance to ERD-using populations, such as help seeking behaviour and sexual health risks.

The Victorian EDRS represents a key knowledge base from which to further explore patterns and characteristics of ERD use in the state. The primary aim of the national EDRS is to provide a 'snapshot' of the characteristics of regular psychostimulant use in Australia. Although the data collection methods described in this report have limitations, the findings can be used to inform other research with the capacity to target emergent questions relating to regular ecstasy use (see below).

On the basis of the findings of the 2016 Victorian EDRS, we recommend:

- further exploration of methods to reduce and prevent the use of alcohol at harmful levels;
- tailored research and ongoing surveillance activities capable of capturing information on online marketplaces as it appears to be the preferable method by those who are using them;
- raising health workers' awareness of NPS to increase their ability to detect related drug overdoses and enhance surveillance activities;
- further research into the health and behavioural effects of NPS in order to gain a greater understanding of these drugs, and develop clinical and public health responses;
- further investigation into how to improve RPU's utilisation of health services;
- further investigation of how to educate RPU about the risks associated with behaviour such as sexual intercourse while under the influence of drugs; and
- the delivery of targeted education and information about specific drugs to specific population groups such as youth and people who use drugs at music festivals/parties/events.

# 1 INTRODUCTION

This report provides a summary of ecstasy and related drug (ERD) use and market trends in Melbourne, Victoria, from the fourteenth iteration of the Ecstasy and related Drugs Reporting System (EDRS). These trends have been extrapolated from three data sources: interviews with current regular users of ERD; interviews with professionals who have contact with ERD users (key experts, or KE); and a collation of secondary indicator data sources. These three data sources are triangulated in order to minimise the biases and weaknesses inherent in each one.

For the purposes of the study, the terms 'ecstasy and related drugs' or 'psychostimulants' include drugs that are routinely used in the context of entertainment venues such as nightclubs, dance parties and music festivals. In addition to ecstasy (3,4-methylenedioxymethamphetamine or MDMA), this includes drugs such as methamphetamine, cocaine, LSD (*α*-lysergic acid), ketamine and GHB (gamma-hydroxy-butyrate).<sup>1</sup>

In 2016, the EDRS Project was supported by funding from the Australian Government under the Substance Misuse Prevention and Service Improvement Grants Fund. The project uses a methodology based on that used for the Illicit Drug Reporting System (IDRS) (Topp, Degenhardt, Day, & Collins, 2003). The IDRS monitors Australia's heroin, cocaine, methamphetamine and cannabis markets, but does not adequately capture ERD use. Consistency between the methodology of the IDRS and this study was maintained where possible, as the IDRS has demonstrated success as a monitoring system.

The focus of the Victorian EDRS is Melbourne, as new trends in illicit drug markets are more likely to emerge in large cities rather than regional centres or rural areas. Comparisons are made between the 2016 results and those reported in the 2005 to 2015 studies where appropriate.

## 1.1 Study aims

The overall aim of the 2016 Victorian EDRS was to extend to a fourteenth year the routine monitoring of key ERD market indicators in Melbourne. The specific aims of the study were to:

- describe the characteristics of a sample of current regular psychostimulant users (RPU) interviewed in Melbourne;
- examine this sample's patterns of ERD use;
- document the current market characteristics (i.e., price, purity and availability) of ERD in Melbourne;
- examine participants' perceptions of the incidence and nature of ERD-related harm, including physical, psychological, occupational, social and legal harms;
- identify emerging trends in the ERD market that might require further investigation;
- examine participants' involvement in criminal behaviours; and
- where appropriate, compare 2016 findings with those reported in the previous EDRS reports.

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<sup>1</sup> For further information about these and similar drugs, see: [www.adf.org.au](http://www.adf.org.au); [www.bluelight.org](http://www.bluelight.org); [www.erowid.org](http://www.erowid.org).

## 2 METHOD

The 2016 EDRS used the methodology trialled in the feasibility study (Breen, Topp, & Longo, 2002), subsequently used in the 2003–2015 studies, to monitor trends in the markets for ERD. The three main sources of information used to document trends were:

1. face-to-face interviews with current RPU;
2. face-to-face interviews, telephone interviews and online surveys with KE who, through their work, have regular contact with psychostimulant users in Melbourne; and
3. indicator data sources such as ERD treatment episodes, the purity of ecstasy seized in Victoria, and prevalence of use data drawn from the 2013 National Drug Strategy Household Surveys (NDSHS) conducted by the Australian Institute of Health and Welfare (AIHW).

These three data sources were triangulated so that different data sources were used to validate each other and provide a more reliable indication of emerging trends in ERD drug use and drug markets.

### 2.1 Survey of RPU

As described above, the ERD category includes a range of drugs. The sentinel population chosen to monitor trends in ERD markets in 2016 was people who reported regular use of ecstasy and other psychostimulants, termed 'regular psychostimulant users' (RPU). This was the third year the eligibility criteria included other psychostimulants, reflecting the changing nature of the ecstasy market and types of consumers.

For the purposes of this study, 'regular psychostimulant use' was defined as the use of ERD at least once a month over the previous six months. Participants were also required to be at least 18 years of age and to have resided in the Melbourne metropolitan area of Victoria for the 12 months preceding interview.

### 2.2 Recruitment

One hundred RPU were interviewed for the Victorian 2016 EDRS. All of the participants resided in the Melbourne metropolitan region and were recruited through a purposive sampling strategy (Kerlinger, 1986) consisting of advertisements in entertainment street press, online forums, social media, interviewer contacts, and 'snowball' procedures (Biernacki & Waldorf, 1981). Snowballing is a means of sampling 'hidden' populations which relies on peer referral, and is widely used to access illicit drug users in Australian studies (Boys, Lenton, & Norcoss, 1997; Ovendon & Loxley, 1996; Solowij, Hall, & Lee, 1992) as well as international studies (Dalgarno & Shewan, 1996; Forsyth, 1996; Peters, Davies, & Richardson, 1997). Accordingly, on completion of the interview, participants were asked if they would be willing to discuss the study with friends who might be interested and able to participate. Snowballing is also routinely employed as a recruitment method in the IDRS (Jenkinson & O'Keeffe, 2005). Additionally, the Victorian EDRS has transitioned from using advertisements in street press as the main method of recruitment to relying more heavily on social media in 2016 as use of printed publications declines (56% recruited via social media, 18% recruited via street press).

### 2.3 Procedure

Participants contacted the researchers by telephone or via email and were screened for eligibility (using the criteria listed in section 2.1). They were informed that all information provided was strictly confidential and anonymous, and that the study would involve a face-to-face interview that would take approximately 60 minutes to complete. All respondents were volunteers who were reimbursed \$40 for their participation. All interviews were undertaken at the Burnet Institute and were conducted by trained researchers using a standardised interview schedule. The nature and purpose of the study was explained to participants before informed consent was obtained. Ethics approval for this study was obtained from the Alfred Hospital Human Research Ethics Committee.

#### 2.3.1 Measures

Participants were administered a structured interview schedule based on a national study of ecstasy users conducted by the National Drug and Alcohol Research Centre (NDARC) in 1997 (Topp et al., 1998; Topp, Hando, Dillon, Roche, & Solowij, 2000), which incorporated items from previous NDARC studies of users of ecstasy (Solowij et al., 1992) and powder methamphetamine (Darke, Cohen, Ross, Hando, & Hall, 1994; Hando & Hall, 1993; Hando, Topp, & Hall, 1997). The interview schedule focused primarily on the preceding six months (recent use) and assessed demographic

characteristics; patterns of ERD use, including frequency and quantity of use and routes of administration; the price, purity and availability of ERD; patterns of ERD purchasing; self-reported criminal activity; perceived physical and psychological side-effects of ecstasy; other ecstasy-related problems, including relationship, financial, legal and occupational problems; help-seeking behaviour; and general trends in party drug markets, such as new drug types and new drug users. The interview schedule was administered via laptops using Questionnaire Design Studio V.2.6.1.

### **2.3.2 Data analysis**

Descriptive analyses were conducted using Statistical Package for the Social Sciences (SPSS) as well as Stata V.11.0. For selected key variables, tests of proportions were used to determine the significance of differences between 2015 and 2016 results, with a statistically significant difference defined as  $p < 0.05$ . Throughout the report, a p-value is only reported when significant differences existed.

## **2.4 Survey of KE**

The criterion for KE eligibility was regular contact (at least weekly contact and/or had contact with 10 or more ecstasy users in the last six months) or significant knowledge, in the course of employment, of users of ERD throughout the preceding six months. Nine KE provided information on the psychostimulant users they had contact with/knowledge of in the six to 12 months preceding interview.

The nine KE interviewed in 2016 were three members of Victoria Police, three drug treatment workers, one medical officer, one harm reduction program coordinator and one user group representative.

Most of the KE reported working with mixed populations (in terms of age, ethnicity and gender identity); however, six reported that they worked with one or more 'special population groups', including young people, women, Aboriginal and/or Torres Strait Islanders, GLBTIQ (gay, lesbian, bisexual, transgender, intersex, queer) populations and people who inject drugs.

KE were asked to comment on what drug(s) they considered most problematic and the reasons why, and any changes in drug market characteristics between 2015 and 2016.

## **2.5 Other indicators**

Primary information collected from the RPU surveys and KE interviews was supplemented by data obtained from secondary indicator sources of illicit drug use and related morbidity and mortality. Where possible, data relating to trends for the 2015/2016 financial year are reported, unless otherwise indicated. For secondary indicators, when current data were not available, the most recently available data were included.

Indicator data sources accessed for this study are described in the following sections:

### **Surveys reporting on illicit drug use prevalence in Victoria**

- Estimates of prevalence of alcohol and drug use in the general community are typically derived from large-scale population surveys. The most recent Australian household survey from which estimates of illicit drug use within the community are available is the 2013 National Drug Strategy Household Survey (NDSHS, 2014).

### **Drug seizure purity levels**

- The Drug Analysis Branch of the Victoria Police Forensic Services Department conducts purity analyses for all Victoria Police's drug seizures. The Victoria Police Forensic Services Department provided drug purity data for inclusion in this report up to the 2015/2016 financial year.

### **Drug-related arrest data**

- Information pertaining to drug-related arrests in Victoria was obtained from the Australian Criminal Intelligence Commission (ACIC). Victoria Police and the Australian Federal Police provide arrest data to the ACIC for the Illicit Drug Data Report. This report presents drug-related arrest data for the 2014/2015 financial year.

### **Specialist drug treatment presentations**

- The Victorian Department of Health funds community-based agencies to provide specialist alcohol and drug treatment services across the state. The collection of client information is a mandatory requirement and occurs via a formalised client data collection system called the Alcohol and Drug Information System (ADIS). The ADIS data presented in this report represent courses of treatment (not client numbers) undertaken during the 2015/2016 financial year.
- DirectLine is a 24-hour specialist telephone service in Victoria (operated by Turning Point Alcohol & Drug Centre) that provides counselling, referral and advice about drug use and related issues. All calls to DirectLine are logged to an electronic database of information about callers' drugs of concern, calls from drug users and calls about drug users. This report presents data for the period between 2001 and 2015. Please note that amphetamine data from DirectLine is not included due to the introduction of the 'Ice Advice Line' where methamphetamine related calls have been directed to since its launch in early 2015.

### **Ambulance attendances at non-fatal drug-related events**

- Turning Point Alcohol & Drug Centre manages electronic drug-related ambulance attendance data extracted from a database called the Victorian Ambulance Clinical Information System. Data for the period between January 2012 and December 2015 are presented in this report.

### **National Hospital Morbidity Database**

- The National Hospital Morbidity Database (NHMD) is a collection of electronic records for hospital admissions in public and private hospitals compiled by the AIHW. Drug-related hospital admissions for amphetamine, cocaine and cannabis are included in this report for Victoria and Australia, from 2007/08 to 2014/15.

## 3 DEMOGRAPHICS

### 3.1 Overview of the EDRS participant sample

The demographic characteristics of the EDRS participants recruited in 2016 in Victoria were comparable to those of previous years (Table 1). As with previous years, the sample was predominantly heterosexual (85%) and well educated (50% with tertiary qualifications). For the first time in the Victorian EDRS, more females (53%) were recruited than males. The mean age was 24 years, 16% reported being employed full-time and the sample reported a mean weekly income of \$489. Eight participants reported previous participation in the EDRS. In contrast to previous years, the 2016 RPU sample was mostly recruited via the internet (56%), mostly Facebook, followed by snowballing/word-of-mouth (26%) and street press (18% vs. 40% in 2015).

**Table 1: Demographic characteristics of EDRS participants, 2011–2016**

	2011 (n=101)	2012 (n=100)	2013 (n=100)	2014 (n=100)	2015 (n=100)	2016 (n=100)
Mean age (years)	26	24	26	25	24	24
Male gender (%)	64	67	63	69	59	47
English-speaking background (%)	98	94	100	93	89	98
ATSI (%)	2	2	2	2	0	3
Heterosexual (%)	86	90	85	89	84	85
Mean number school years	12	12	12	12	12	12
Tertiary qualifications (%)	58	52	59	50	49	50
Employed full-time (%)	25	23	31	17	14	16
Full-time students (%)	9	8	18	21	13	9
Unemployed (%)	32	16	16	14	16	14
Current drug treatment (%)	4	7	4	1	3	2
Mean income per week (\$)	\$539	\$530	\$700	\$564	\$446	\$489

Source: EDRS participant interviews

KE interviews indicated that the RPU population remains diverse in characteristics such as age, gender, sexuality and geographic location, and described RPU as mostly aged between 16 and 35 years. There were more KE this year who described RPU as being poorly educated and unemployed or early school leavers. Most KE reported having contact with both male and female RPU.

## 4 DRUG CONSUMPTION PATTERNS

### Summary

- A significantly larger proportion of participants (44%) reported ecstasy as their main drug of choice (favourite or preferred drug) than in the 2015 EDRS (25%).
- Pills remained the most commonly reported form of ecstasy used.
- The prevalence of reported recent use of ketamine, GHB and benzodiazepines were significantly higher in 2016 than in 2015
- The median reported days of use of crystal methamphetamine in the preceding six months increased from 10 days in 2015 to 15 days.
- The proportion of RPU reported lifetime LSD use was significantly smaller than in 2015.
- Significantly more participants reported drinking alcohol during a recent stimulant drug binge than in 2015.
- A significantly smaller proportion reported recent ecstasy powder use than in 2015.
- When compared to 2015, smaller proportion of RPU also reported 'rave/dance party' (includes bush doofs) as their last location of ecstasy use in 2016.

## 4.1 Drug use history and current drug use

In 2016, participants were asked about lifetime (ever used) and recent (used in the last six months) use of a broad range of drug types, including alcohol and tobacco (Table 2). The drugs most likely to have ever been used were alcohol, cannabis, ecstasy pills and capsules, tobacco, speed, ketamine and cocaine. The reported recent use of drugs was significantly higher in 2016 than 2015 for ketamine (72% vs. 50%,  $p<0.05$ ), GHB (14% vs. 9%,  $p<0.05$ ) and benzodiazepines (52% vs. 34%,  $p<0.05$ ) whilst the proportion reporting recent use of ecstasy powder (27% vs. 46%,  $p<0.05$ ) was significantly smaller.

Similar to 2015, almost half (41%) of the 2016 RPU sample reported recent use of synthetic analogues known as 'research chemicals', such as mephedrone and dimethyl tryptamine (DMT), or other synthetic drugs, such as 2C-B or benzylpiperazines (BZP), and synthetic cannabinoids (e.g., Kronic and K2). Data on these new psychoactive substances (NPS) were first collected in the 2010 EDRS.

Similar to 2015, KE considered crystal methamphetamine and alcohol to be the most problematic drugs used by RPU in 2016. Crystal methamphetamine was by far the most common form of amphetamine seen by KE. KE raised concerns relating to crystal methamphetamine and its association with aggressive behaviour, violence and mental health risks, dependence, high purity, burden on the health care system and ease of access in the previous 12 months. KE also highlighted the ubiquity of alcohol and concerns around alcohol-related harms.

**Table 2: Lifetime and recent drug use of EDRS participants, 2011–2016**

	2011 (N=101)	2012 (N=100)	2013 (N=100)	2014 (N=100)	2015 (N=100)	2016 (N=100)
<b>Alcohol</b>						
Ever used (%)	99	100	100	100	100	100
Used last 6 months (%)	97	97	93	99	96	97
<b>Cannabis</b>						
Ever used (%)	96	97	100	100	98	100
Used last 6 months (%)	86	85	87	81	90	86
<b>Tobacco</b>						
Ever used (%)	92	94	92	98	96	95
Used last 6 months (%)	82	87	82	83	87	88
<b>Ecstasy pill</b>						
Ever used (%)	99	99	97	100	98	98
Used last 6 months (%)	91	92	86	90	84	91
<b>Ecstasy capsule</b>						
Ever used (%)	89	83	85	83	90	93
Used last 6 months (%)	65	67	67	66	76	84
<b>Ecstasy powder</b>						
Ever used (%)	56	43	72	61	66	53
Used last 6 months (%)	30	31	51	43	46	27
<b>Ecstasy crystal*</b>						
Ever used (%)	-	-	58	80	59	73
Used last 6 months (%)	-	-	49	64	54	59
<b>Methamphetamine powder (speed)</b>						
Ever used (%)	88	94	86	89	78	85
Used last 6 months (%)	69	77	58	56	45	50
<b>Methamphetamine base (base)</b>						
Ever used (%)	32	22	30	31	22	21
Used last 6 months (%)	12	13	8	10	5	2
<b>Crystal methamphetamine (ice/crystal)</b>						
Ever used (%)	56	57	62	42	33	30
Used last 6 months (%)	38	48	45	34	19	18
<b>Pharmaceutical stimulants (licit &amp; illicit)</b>						
Ever used (%)	59	46	65	65	54	55
Used last 6 months (%)	29	21	30	32	33	34
<b>Cocaine</b>						
Ever used (%)	74	78	78	84	71	81
Used last 6 months (%)	43	54	46	58	46	56
<b>LSD</b>						
Ever used %	82	63	88	77	85	70
Used last 6 months %	57	38	52	49	46	52
<b>MDA</b>						
Ever used (%)	27	27	31	33	35	30
Used last 6 months (%)	12	12	13	21	20	12
<b>Ketamine</b>						
Ever used %	60	63	76	82	73	84
Used last 6 months %	26	35	46	63	50	72
<b>GHB</b>						
Ever used (%)	24	24	30	34	23	26
Used last 6 months (%)	6	7	14	13	9	14
<b>Amyl nitrite</b>						
Ever used (%)	63	53	69	71	67	60
Used last 6 months (%)	24	21	23	34	28	36
<b>Nitrous oxide</b>						
Ever used (%)	55	39	72	70	79	78
Used last 6 months (%)	33	22	48	53	53	62
<b>Psilocybin mushrooms</b>						
Ever used (%)	83	74	85	78	81	70
Used last 6 months (%)	41	38	38	25	40	29
<b>Heroin</b>						
Ever used (%)	28	17	25	15	11	15
Used last 6 months (%)	15	5	10	6	5	7
<b>Benzodiazepines (illicit &amp; licit)</b>						
Ever used (%)	71	59	80	72	59	66
Used last 6 months (%)	56	46	53	59	34	52
<b>Other opioids (illicit &amp; licit)</b>						
Ever used (%)	43	33	41	60	42	46
Used last 6 months (%)	21	13	21	27	24	28
<b>Antidepressants (illicit &amp; licit)</b>						
Ever used (%)	31	36	35	26	23	7**
Used last 6 months (%)	11	19	10	7	8	1**

Source: EDRS participant interviews

\* Ecstasy crystal questions introduced in 2013

\*\*Licit antidepressants not included in 2016 survey

## 4.2 Ecstasy use

### 4.2.1 Ecstasy use among EDRS participants

In 2016, 44% of participants reported ecstasy as their main drug of choice ('favourite or preferred' drug), compared to 25% in 2015. This year's figure is significantly higher than the figure from 2015 ( $p < 0.05$ ), but is consistent with the figure from 2014 (44%). RPU reported using a median of two ecstasy pills in a 'typical' session and one-fifth (20%) reported using ecstasy pills weekly or more in the preceding six months, similar to previous years (Table 3). Almost all ( $n=95$ ) RPU reported using other drugs on the last occasion they used ecstasy. The drug most commonly used in conjunction with ecstasy on the last occasion was tobacco (63%), followed by alcohol (consumed >5 standard drinks, 61%), cannabis (33%) and ketamine (27%).

**Table 3: Patterns of ecstasy use among EDRS participants, 2011–2016**

Ecstasy	2011 (n=101)	2012 (n=100)	2013 (n=100)	2014 (n=100)	2015 (n=100)	2016 (n=100)
Mean age first used ecstasy (years)	18	18	19	18	18	18
Ecstasy 'favourite' drug (%)	31	35	26	44	25	44
Median days used ecstasy pills last 6 months	10	12	10	12	18	6
Use ecstasy pills weekly or more (%)	20	25	29	21	18	20
Median ecstasy pills in 'typical' episode of use	2	2	2	2	2	2
Typically use >1 pill (%)	75	83	81	75	60	68
Main route of administration of ecstasy pills in the last 6 months (%)*						
Swallow	83	88	87	86	91	100
Snort	17	10	11	10	9	19
Inject	0	1	1	0	0	0
Ever injected ecstasy pills (%)**	10	4	8	2	-	-
Used other drugs in conjunction with ecstasy last occasion (%)	94	95	92	90	95	95
Used other drugs to 'come down' from ecstasy last occasion (%)***	67	56	51	50	56	-

Source: EDRS participant interviews

\* Among those who had used ecstasy in the previous 6 months

\*\* Routes of administration ever used not asked in 2015 and 2016 survey

\*\*\* Drugs used to 'come down' from ecstasy last occasion not asked in 2016 survey

Among KE who were able to comment, most commented that the price of ecstasy has decreased and the purity has increased in crystalline form whilst pills were often reported to be fluctuating in purity. One KE noted that this fluctuation in purity associated with pills is making it difficult for users to regulate their dose, leading to users frequently exceeding a safe and 'pleasurable' dose.

Recent use of ecstasy capsules was reported by 84% of RPU, an increase from 2015 (76%). A smaller proportion of RPU reported lifetime (53% vs. 66% in 2015) use and a significantly smaller proportion of RPU reported recent (27% vs. 46% in 2015,  $p < 0.05$ ) use of ecstasy powder. The difference between the proportion who reported use of ecstasy crystals and participants who reported use of ecstasy powder in the last six months was larger this year than in 2015 (59% and 27% vs. 54% and 46% respectively). Pills were the most commonly reported form of ecstasy used in 2016, consistent with previous years.

**Table 4: Patterns of ecstasy pill, capsule, powder and crystal use among EDRS participants, 2016**

Ecstasy	Ecstasy pill (n=100)	Ecstasy capsule (n=100)	Ecstasy powder (n=100)	Ecstasy crystal (n=100)
Lifetime use (%)	98	93	53	73
Used ecstasy in last 6 months (%)	91	84	27	59
Mean age in years first used (range)	18 (13-43)	19 (15-32)	19 (16-43)	19 (15-44)
Median days used last 6 months (range)	6 (1-72)	6 (1-55)	6 (1-72)	5 (1-55)
Median amount used in 'typical' episode of use* (range)	2 pills (1-7)	2 caps (1-5)	0.2 grams** (0.025-0.5)	2 points*** (1-5)
Route of administration in the last 6 months* (%)				
Swallow	100	95	56	80
Snort	19	38	78	64
Inject	0	-	0	3
Other	4	2	4	2

Source: EDRS participant interviews

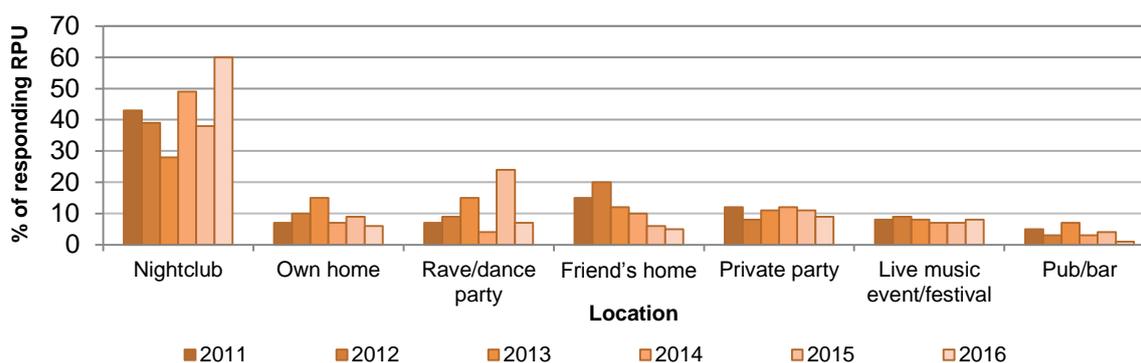
\* Among those who had used ecstasy in the previous 6 months

\*\* Figures in the Victorian EDRS report differ slightly from those in the national report due to inclusion of points in the calculation of grams

\*\*\* Figures in the Victorian EDRS report differ slightly from those in the national report due to inclusion of grams in the calculation of points

Figure 1 shows RPUs' reported last location of ecstasy use. Consistent with previous years, in 2016, nightclubs were the most commonly reported location of most recent ecstasy use; however, this year's proportion is significantly larger than the proportion in 2015 (60% vs. 38%,  $p < 0.05$ ). After a spike in 2015, a significantly smaller proportion of RPU reported 'rave/dance party' (includes bush doofs) as their last location of ecstasy use in 2016 (7% vs. 24%,  $p < 0.05$ ), which is comparable with previous years.

**Figure 1: Location of most recent ecstasy use, 2011–2016**

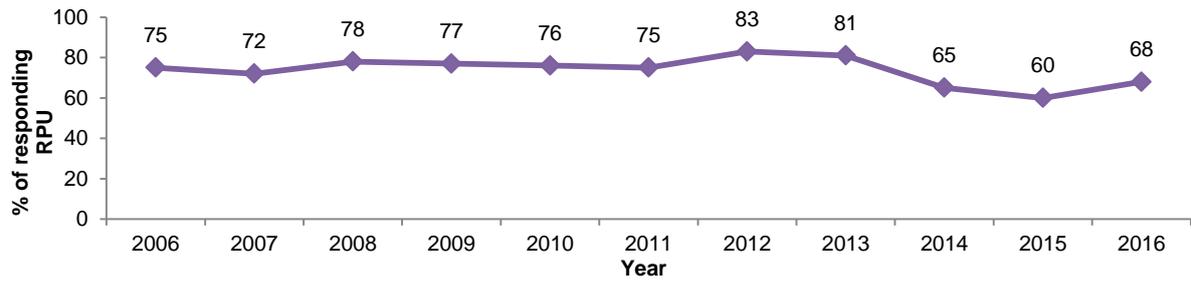


Source: EDRS participant interviews

#### 4.2.2 Ecstasy trends over time

In 2016, 68% of the Victorian EDRS sample reported typically using more than one ecstasy pill per episode of use (Figure 2) and 31% reported typically using more than two pills per episode of use (the highest reported number of pills used per typical episode of use was 7). RPU reported using ecstasy pills on a median of six days in the preceding six months, half the number of median days reported in 2015 (12 days) (see Table 4).

**Figure 2: Percentage of EDRS participants who report typically using more than one ecstasy pill, 2006–2016**



Source: EDRS participant interviews

#### 4.2.3 Ecstasy use in the general population

The 2013 NDSHS provides the most recent national figures regarding the prevalence of ecstasy use in the general population. The results of this survey indicate that, in 2013, 2.5% of the Australian population aged 14 years and over reported ecstasy use in the last 12 months (AIHW, 2014), a figure significantly lower than in 2010 (3%); the highest prevalence of recent ecstasy use was reported by 20–29-year-olds (8.6%) (AIHW, 2014). The percentage of the Victorian population aged 14 years and over who reported ecstasy use in the last 12 months (2.4%) was similar to the national figure in 2013 (AIHW, 2014).

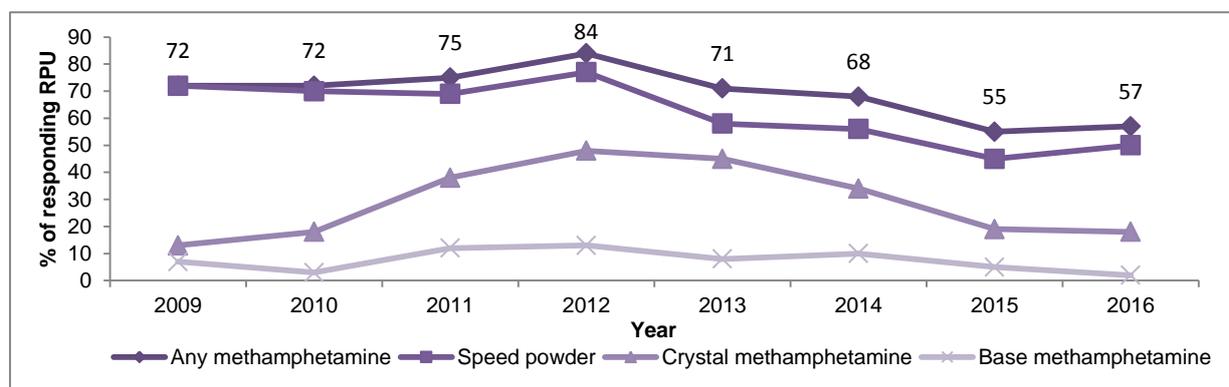
### 4.3 Methamphetamine use

#### 4.3.1 Methamphetamine use among EDRS participants

The majority (85%) of participants reported lifetime use of one or more forms of methamphetamine (speed powder, base or crystal) and 57% of the sample had done so in the previous six months, comparable with figures from 2015 (82% lifetime use, 55% recent use) (Figure 3).

Among KE who were able to comment, most reported that methamphetamine use has remained prevalent and is most commonly in crystal form, with little to no speed. Seven out of nine KE included crystal methamphetamine as one of the drugs that they currently consider as most problematic. The most common concerns raised by KE in relation to crystal methamphetamine were violent behaviour, health and mental health harms, dependence and its burden on the health care sector.

**Figure 3: Recent use of any methamphetamine, speed powder, crystal and base methamphetamine, 2009-2016**



Source: EDRS participant interviews

#### 4.3.2 Methamphetamine powder (speed)

There were more reports of both lifetime (85%) and recent (50%) use of speed in 2016 than in 2015 (78% and 45% respectively). Comparable with previous years, the median reported age of first speed use was 18 years (range 9–30 years). The median quantity used during a typical episode of use was 0.2 gram (Table 5). Sixteen per cent of recent speed users reported using speed the last time they used ecstasy.

#### 4.3.3 Methamphetamine base

Consistent with previous years, methamphetamine base use remains low in Victoria among RPU. Twenty-one per cent of RPU reported having ever used methamphetamine base in 2016, and 2% in the preceding six months. The median reported age of first methamphetamine base use was 20 years (range 13–28 years). Small numbers precluded further analysis of base use. There were no recent base users who reported using base the last time they used ecstasy.

**Table 5: Patterns of speed use among EDRS participants, 2011–2016**

Speed	2011 (n=101)	2012 (n=100)	2013 (n=100)	2014 (n=100)	2015 (n=100)	2016 (n=100)
Ever used (%)	88	94	86	89	78	85
Used preceding 6 months (%)	69	77	58	56	45	50
Median days used last 6 months* (range)	11 (1-115)	6 (1-120)	4 (1-80)	4 (1-180)	2 (1-40)	3 (1-50)
<b>Median quantities used* (grams)</b>						
Typical (range)**	0.5 (0.1-2) n=63	0.5 (0.3-5) n=58	0.5 (0.05-3.5)** n=43	0.4 (0.1-2) n=11	0.2** (0.025-1) n=39	0.2** (0.05-0.5) N=26
Heavy (range)**	1 (0.1-4) n=64	1 (0.3-7) n=61	0.5** (0.1-7) n=47	1 (0.1-2) n=17	0.2** (0.025-2) n=39	0.3** (0.1-1) N=28

Source: EDRS participant interviews

\* Among those who used speed powder in the previous 6 months

\*\* Figures in the Victorian EDRS report differ slightly to those in the national report due to inclusion of grams in the calculation of points

#### 4.3.4 Crystal methamphetamine

In 2016, the percentage of RPU in Victoria reporting lifetime (30%) and recent (18%) use of crystal methamphetamine declined slightly (33% and 19% in 2015 respectively) (Table 6). When compared with 2015 (21 years), RPU in 2016 reported initiating crystal methamphetamine use at a younger median age of 19.5 years (range 16–32 years). The most commonly reported route of administration of crystal methamphetamine in the preceding six months was smoking (72%). RPU reported using one and a half points in a typical episode – consistent with 2015. The median quantity RPU reported using during a heavy episode increased from two points in 2015 to four points. There were no recent crystal methamphetamine users who reported using crystal methamphetamine the last time they used ecstasy.

**Table 6: Patterns of crystal methamphetamine use among EDRS participants, 2011–2016**

Crystal methamphetamine	2011 (n=101)	2012 (n=100)	2013 (n=100)	2014 (n=100)	2015 (n=100)	2016 (n=100)
Ever used (%)	56	57	62	42	33	30
Used last six months (%)	38	48	45	34	19	18
Median days used last 6 months* (range)	8 (1-120) n=37	8.5 (1-170) n=48	10 (1-170) n=45	8 (1-120) n=34	10 (1-96) n=19	15 (1-120) n=18
<b>Median quantities used* (points)</b>						
Typical (range)	2 (0.2-10) n=36	1.5 (0.1-7) n=40	2** (0.3-15) n=42	2 (0.1-5) n=23	1.5 (0.5-5) n=18	1.5 (0.5-10) n=15
Heavy (range)	3 (0.4-17) n=36	2.5 (0.1-10) n=37	3.5** (1-50) n=42	2.5 (0.3-6) n=20	2 (0.5-7) n=15	4 (1-35) n=15

Source: EDRS participant interviews

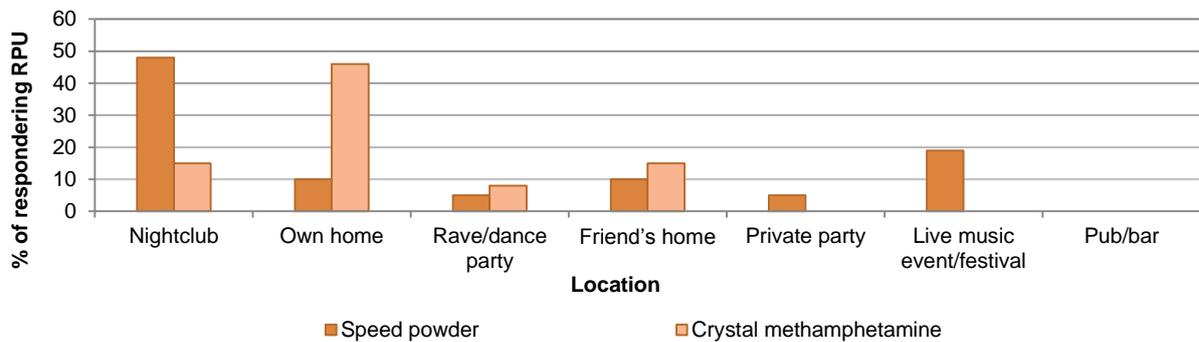
\* Among those who used crystal methamphetamine in the last 6 months

\*\* Figures in the Victorian EDRS report differ slightly to those in the national report due to inclusion of grams in the calculation of points

#### 4.3.5 Location of methamphetamine use

The location of the most recent occasion of speed and crystal methamphetamine use is detailed in Figure 4. The majority of responding regular ecstasy users (REU) reported a nightclub as their last location of use (48%) followed by live music event/festival (19%). Similar to previous years, 61% of recent crystal methamphetamine users reported being in a private setting the last time they used: 46% at their own home, and 15% at a friend's home. Small numbers precluded further analysis of the locations of recent methamphetamine base use.

Figure 4: Location of most recent methamphetamine use: speed & crystal, 2016



Source: EDRS participant interviews

#### 4.3.6 Methamphetamine use in the general population

The 2013 NDSHS report provides the most recent national figures regarding the prevalence of methamphetamine use in the Australian general population. The report indicated that, in 2013, 2.1% of the Australian population aged 14 years and over reported recent (in the last 12 months) use of methamphetamines, identical to the previous survey in 2010 (AIHW, 2014). As with ecstasy use, the highest prevalence of recent (5.7%) methamphetamine use nationally was reported by the 20–29-year-old age group (AIHW, 2014). The figure for the Victorian population aged 14 years and over who reported recent use of methamphetamines (1.9%) was similar to the national figure in 2013.

## 4.4 Cocaine use

### 4.4.1 Cocaine use among EDRS participants

A higher percentage of participants reported having ever used cocaine in 2016 (81%) than in 2015 (71%). Similarly, a larger proportion reported using it in the preceding six months (56% vs. 46% in 2015) (Table 7).

In 2016, the median age of first use among RPU who reported using cocaine was 19 years (range 13–43 years) compared to 21 years in 2015. EDRS participants reported using cocaine on a median of two days (range 1–34), and used a median of two points (0.2 gram, range 0.1–1 gram) during a typical episode of use and half a gram (five points, range 0.1–3 grams) during a heavy episode of use. Of those who reported using cocaine in the last six months, only 20% reported using it more frequently than once a month, consistent with 2015, and all recent users reported snorting cocaine (100%). Twelve per cent of recent cocaine users reported using cocaine the last time they used ecstasy.

**Table 7: Patterns of cocaine use among EDRS participants, 2011–2016**

Cocaine	2011 (n=101)	2012 (n=100)	2013 (n=100)	2014 (n=100)	2015 (n=100)	2016 (n=100)
Ever used %	74	78	78	84	71	81
Used last six months %	43	54	46	58	46	56
Median days used last 6 months* (range)	2.5 (1-60)	3 (1-50)	2 (1-26)	3 (1-36)	2.5 (1-30)	2 (1-34)
<b>Median quantities used (grams)*</b>						
Typical (range)	1 (0.1-5) n=33	0.5 (0.2-3) n=39	0.5 (0.05-3) n=33	1 (0.03-1.5) n=23	0.3** (0.05-1) n=34	0.2** (0.1-1) n=17
Heavy (range)	1 (0.1-5) n=46	1 (0.2-3) n=40	0.5 (0.05-5)** n=33	1 (0.03-3) n=28	0.35** (0.05-3) n=34	0.5 (0.1-3) n=23

Source: EDRS participant interviews

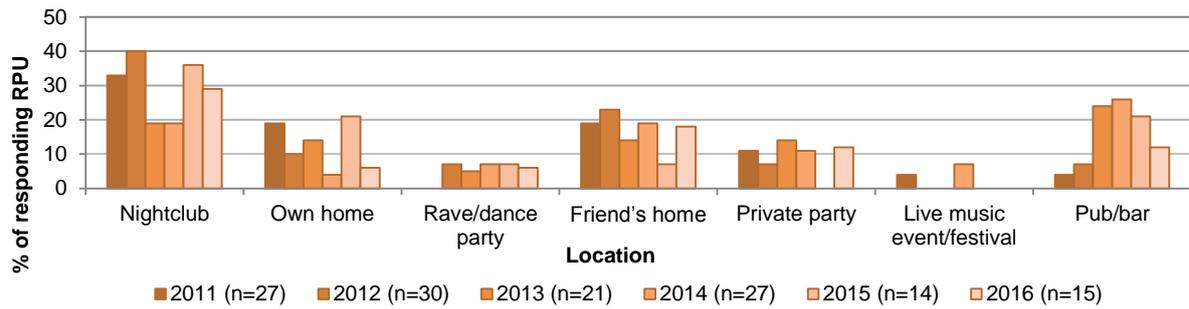
\* Among those who used cocaine in the last 6 months

\*\* Figures in the Victorian EDRS report differ slightly to those in the national report due to inclusion of grams in the calculation of points

Only a small number of KE were able to comment on cocaine. One KE reported that cocaine seems to be regaining popularity through being discovered or re-discovered among ketamine enthusiasts. The combination of cocaine and ketamine, referred to by some as 'Calvin Klein' among other references, seems to be commonly desired. Another KE noted that purity continues to remain consistently low.

The most frequently reported last location of cocaine use in 2016 was a nightclub (29%) followed by 'friend's home' (18%) and then equally by 'private party' and pub/bar (12%) (Figure 5).

**Figure 5: Location of most recent cocaine use, 2011–2016**



Source: EDRS participant interviews

#### 4.4.2 Cocaine use in the general population

The 2013 NDSHS provides the most recent national figures regarding the prevalence of cocaine use in the Australian general population. This survey indicates that, in 2013, 2.1% of the Australian population aged 14 years and over reported recent (in the last 12 months) cocaine use, unchanged from 2010 (2.1%) after a continued increase since the 1993 survey estimate of 0.5% (AIHW, 2014). The figure for the Victorian population is almost identical to the national figure (2%).

## 4.5 Ketamine use

### 4.5.1 Ketamine use among RPU

In 2016, a higher percentage of RPU reported lifetime (84% vs. 73% in 2015) and recent (72% vs. 50% in 2015,  $p < 0.05$ ) use of ketamine (Table 8). As seen in previous years, ketamine remains infrequently used – on a median of five days in the preceding six months (range 1–72). Recent ketamine users reported using a median of three bumps during a typical episode (range 1–8 bumps) as well as during a heavy episode (1–20 bumps) of use. However, in 2016, the most common unit of measure in which RPU reported their consumption patterns was ‘points’ ( $n=27$ ). Users reported using a median of two points during a typical episode (range 0.5–6 points) and two and a half points during a heavy episode (range 1–8 points) of use. Forty-three per cent of recent ketamine users reported using ketamine the last time they used ecstasy.

**Table 8: Patterns of ketamine use among EDRS participants, 2011–2016**

Ketamine	2011 (n=101)	2012 (n=100)	2013 (n=100)	2014 (n=100)	2015 (n=100)	2016 (n=100)
Ever used (%)	60	63	76	82	73	84
Used last 6 months (%)	26	35	46	63	50	72
Median days used last 6 months* (range)	4 (1-40)	2 (1-15)	4 (1-48)	3 (1-70)	4 (1-35)	5 (1-72)
<b>Median quantities used (bumps)*</b>						
Typical (range)	3 (0.3-8) n=19	2.5 (0.5-10) n=24	3 (1-4) n=13	1 (1-2) n=9	1 (1-7) n=4	3 (1-8) n=19
Heavy (range)	3 (0.3-15) n=18	2.5 (0.5-15) n=24	3 (1-6) n=13	1.5 (1-3) n=8	1 (1-10) n=4	3 (1-20) n=16

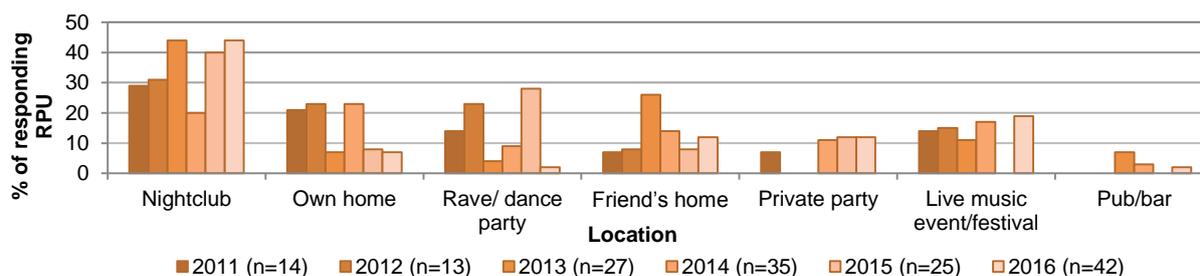
Source: EDRS participant interviews

\* Among those who used ketamine in the last 6 months

A small number of KE were able to comment on ketamine. Most KE reported that purity has been fluctuating over the last year and two KE reported that the prevalence of ketamine use has increased, with one KE suggesting that it is quite possibly the most popular drug used recreationally. Of concern, another KE noted that there are various new psychoactive substances (NPS) “floating around” with similar effect profiles.

As presented in Figure 6, most RPU interviewed in 2016 reported using ketamine on the most recent occasion at a nightclub (44%) followed by live music event/festival (19%).

**Figure 6: Location of most recent ketamine use, 2011–2016**



Source: EDRS participant interviews

#### **4.5.2 Ketamine use in the general population**

There is only a small amount of data available regarding the prevalence of ketamine use in the Australian general population. Only 0.3% of respondents in the 2013 NDSHS reported ketamine use in the last 12 months and only 1.7% reported ever having used the drug (AIHW, 2014). No prevalence data for ketamine use were available for the Victorian population.

## 4.6 GHB use

### 4.6.1 GHB use among EDRS participants

Lifetime use of GHB was reported by 26% of respondents interviewed in 2016, comparable to previous years (Table 9). Fourteen per cent of RPU reported recent use.

RPU reported recent GHB use on a median of four and a half days (range 1–50 days) in the preceding six months, comparable to three days in 2015 (Table 9). A median of 4ml was reported as the amount used during a typical episode of use (range 1.1–20ml), and 6ml during a heavy episode of use (range 1.1-30ml). Nine per cent of recent GHB users reported using GHB the last time they had used ecstasy.

**Table 9: Patterns of GHB use among EDRS participants, 2011–2016**

GHB	2011 (n=101)	2012 (n=100)	2013 (n=100)	2014 (n=100)	2015 (n=100)	2016 (n=100)
Ever used (%)	24	24	30	34	23	26
Used last six months (%)	6	7	14	13	9	14
Median days (range) used last 6 months*	6.5 (1-25)	6 (1-135)	2 (1-180)	10 (1-40)	3 (1-25)	4.5 (1-50)
<b>Median quantities used* (ml)</b>						
Typical (range)	5.5 (1.8-50) n=6	4.5 (2.5-7) n=5	4.5 (0.5-10) n=14	5.5 (1-20) n=12	4.25 (2-20) n=8	4 (1.1-20) n=11
Heavy (range)	16.5 (1.8-50) n=6	4.5 (3-15) n=5	5 (0.5-25) n=14	6 (1.5-25) n=12	5.5 (2-70) n=8	6 (1.1-30) n=12

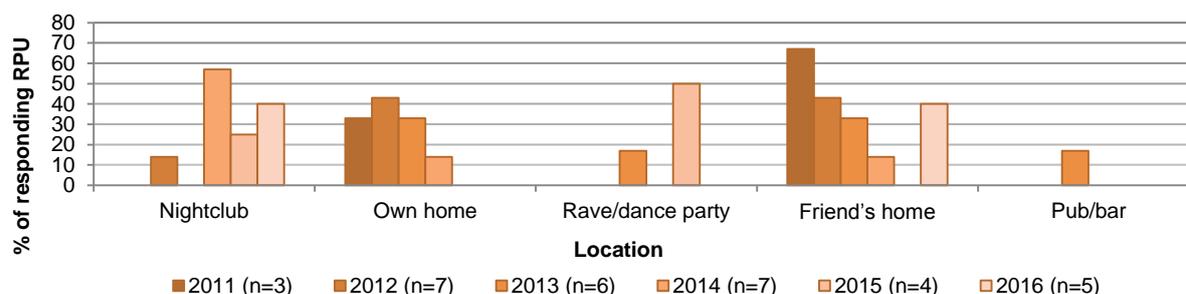
Source: EDRS participant interviews

\* Among those who used GHB in the last 6 months

As in 2015, KE who commented on GHB in 2016 associated the drug with high overdose potential. Two KE reported that GHB is popular among GLBTIQ (gay, lesbian, bisexual, transgender, intersex, queer) communities. Further, one KE also noted that people seem to be modifying their drug-taking behaviour to favour GHB and other drugs that are not detected by police roadside drug tests.

Only a small number (n=5) of RPU provided a response for the location of their most recent GHB use. Two participants reported that they last used GHB at a nightclub (40%), another two participants reported last use at a friend's home and one (20%) participant reported last use at an acquaintance's home (Figure 7).

**Figure 7: Location of most recent GHB use, 2011–2016**



Source: EDRS participant interviews

#### 4.6.2 **GHB use in the general population**

There is little data available regarding the prevalence of GHB use in the Australian general population. Less than 0.1% of respondents from the 2013 NDSHS reported GHB use in the last 12 months, and only 0.9% reported ever having used the drug (AIHW, 2014). As with ketamine, there are no Victorian data for 2013 (AIHW, 2014).

## 4.7 LSD use

### 4.7.1 LSD use among EDRS participants

Lifetime LSD use reported by RPU in 2016 was significantly less prevalent than in 2015 (70% vs. 85% in 2015,  $p < 0.05$ ) whilst reports of recent use were slightly more common (52% vs. 46% in 2015) (Table 10). Recent users of LSD had a median age of 19 years (range 15–44 years) at first use. Participants in 2016 reported use of LSD on a median of two days in the preceding six months (range 1–30 days), the lowest since 2009. The median number of tabs used during a typical session was one (range 0.3–2 tabs) while the median number for a heavy session was one and a half (range 0.3–6 tabs). Seventeen per cent of recent LSD users reported using LSD the last time they used ecstasy.

**Table 10: Patterns of LSD use among EDRS participants, 2011–2016**

LSD	2011 (n=101)	2012 (n=100)	2013 (n=100)	2014 (n=100)	2015 (n=100)	2016 (n=100)
Ever used (%)	82	63	88	77	85	70
Used last 6 months (%)	57	38	52	49	46	52
Median days used last 6 months* (range)	4 (1-48)	3 (1-30)	3 (1-26)	3 (1-25)	3 (1-40)	2 (1-30)
<b>Median quantities used* (tabs)</b>						
Typical (range)	1 (0.5-6) n=55	1 (0.5-3) n=34	1 (1-3) n=52	1 (0.5-2.5) n=37	1 (0.5-5) n=39	1 (0.3-2) n=49
Heavy (range)	2 (0.5-10) n=55	2 (0.5-15) n=34	2 (1-10) n=52	1 (0.5-12) n=37	2 (0.5-16) n=39	1.5 (0.3-6) n=49

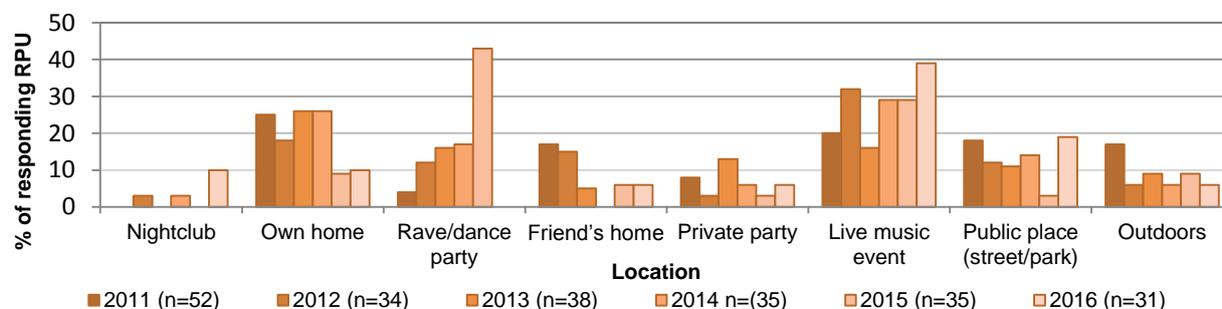
Source: EDRS participant interviews

\* Among those who used LSD in the last 6 months

Among KE who were able to comment on LSD, most reported that its prevalence was steady. However, one KE noted that the purity of LSD is questionable due to various NPS “floating around” with similar effect profiles.

The 2016 RPU sample most commonly reported their most recent LSD use occurring at a live music event (39%), followed by “public place” (19%). After a spike in 2015, there were no participants who reported last using LSD at a rave/dance party in 2016, despite this being the most commonly reported (43%) venue in 2015 (Figure 8).

**Figure 8: Location of most recent LSD use, 2011–2016**



Source: EDRS participant interviews

#### **4.7.2 Hallucinogen use in the general population**

'Hallucinogens' is a category included in the NDSHS, but this is a broad category encompassing LSD, magic mushrooms, angel's trumpet and datura (Department of Health, 2013). The most recent NDSHS data indicates that only 1.3% of the Australian general population reported recent hallucinogen use, while 9.4% reported lifetime use (AIHW, 2014). There were no available data for the Victorian population in 2013.

## 4.8 Cannabis use

### 4.8.1 Cannabis use among RPU

Cannabis use remains common among EDRS participants, with 86% of the 2016 sample reporting use within the last six months (Table 11). The median reported age of first use was 15 years (range 11–23 years). RPU reported using cannabis on a median of 22 days in the last six months, substantially lower than in 2015 (median of 65 days), with 9% reporting daily use in the preceding six months (vs. 28% in 2015).

Furthermore, 32% of recent cannabis users reported using cannabis the last time they used ecstasy. Most recent cannabis users reported smoking it (97%), while 19% reported swallowing and 15 per cent reported inhaling or vaporising it. Participants who reported smoking cannabis in a joint (n=48) on their last occasion of use reported smoking a median of one joint (range .2-6 joints) while those who were able to quantify the amount used the last time they smoked cannabis in grams (n=16) reported using a median of 0.875 gram (range 0.2–1 gram).

**Table 11: Patterns of cannabis use among EDRS participants, 2011–2016**

Cannabis	2011 (n=101)	2012 (n=100)	2013 (n=100)	2014 (n=100)	2015 (n=100)	2016 (n=100)
Ever used %	96	97	100	100	98	100
Used last six months %	86	85	87	81	90	86
<b>Of those who had used</b>						
Median days (range) used last 6 months	48 (2-180)	72 (1-180)	50 (1-180)	24 (1-180)	65 (1-180)	22 (1-180)

Source: EDRS participant interviews

KE confirmed cannabis use remained very common and that availability and purity have remained stable. However, three KE reported that synthetic cannabis continues to be a problem with one KE noting that synthetic cannabis is more commonly seen at music festivals.

### 4.8.2 Cannabis use in the general population

The 2013 NDSHS provides national figures regarding the prevalence of cannabis use in the general population. The results of this survey indicated that, in 2013, 10.2% of the Australian population aged 14 years and over reported recent (in the last 12 months) cannabis use (AIHW, 2014). Figures for Victoria were lower than the national figures in 2010, with 9.1% reporting use of the drug within the past 12 months (AIHW, 2014).

## 4.9 Other drug use

### 4.9.1 Alcohol

All RPU reported alcohol use in their lifetime and almost all (97%) reported use in the preceding six months, comparable with previous years (Table 12). The median reported age of first use was 14 years (range 8.5–17.5 years).

Participants interviewed in 2016 reported drinking on a median of 48 days (range 1-180 days) in the preceding six months, a higher median than 2015 but comparable with previous years. A smaller proportion reported drinking alcohol with ecstasy during their last occasion of psychostimulant use when compared with 2015 (70% vs. 83% in 2015) and 62% reported drinking more than five standard drinks while doing so (vs. 53% in 2015). A significantly larger proportion of RPU reported drinking alcohol during a stimulant drug binge in 2016 than in 2015 (74% vs. 58% respectively,  $p < 0.05$ ).

**Table 12: Patterns of alcohol use among EDRS participants, 2011–2016**

Alcohol	2011 (n=101)	2012 (n=100)	2013 (n=100)	2014 (n=100)	2015 (n=100)	2016 (n=100)
Ever used %	99	100	100	100	100	100
Used last 6 months %	97	97	93	99	96	97
Median days (range) used last 6 months	48 (1-180)	48 (1-180)	50 (2-180)	48 (2-180)	32.5 (1-180)	48 (1-180)
Drank alcohol last ecstasy use occasion	80	80	66	87	83	70
Drank more than 5 standard drinks last ecstasy use occasion*	78	78	85	76	53	62
Drank alcohol during a binge**	66	82	63	66	58	74

Source: EDRS participant interviews

\* Of those who reported drinking alcohol last ecstasy use occasion

\*\* Of those who reported bingeing on any stimulant in the six months prior to interview

KE described alcohol use as widespread among RPU, and often used with other drugs, leading to an increased risk of overdose. KE also expressed concern relating to the Australian culture of binge drinking, especially among younger people, and the easy accessibility of alcohol. Further, KE noted that alcohol is widely perceived as 'not a drug' which therefore makes it challenging to direct harm reduction techniques and messages.

### 4.9.2 Tobacco

Consistent with previous years, reports of lifetime (95%) and recent (88%) tobacco use were common among RPU in 2016. The median age of first tobacco use was 15 years (range 7–24 years). Among those who reported recent use, the proportion of RPU who reported smoking daily was similar to that in 2015 (43% vs. 46% in 2015). Of those who used other drugs during their last occasion of ecstasy use, 44% reported smoking tobacco.

### 4.9.3 Psilocybin or magic mushrooms (mushrooms)

In 2016, 70% of participants reported having ever used mushrooms, slightly less than the proportion interviewed in 2015 (81%). A smaller proportion reporting using mushrooms in the preceding six

months (29% vs. 40% in 2015) and the median number of days used in the preceding six months also fell (2 days vs. 2.5 days in 2015, range 1–20 days and 1–25 days respectively).

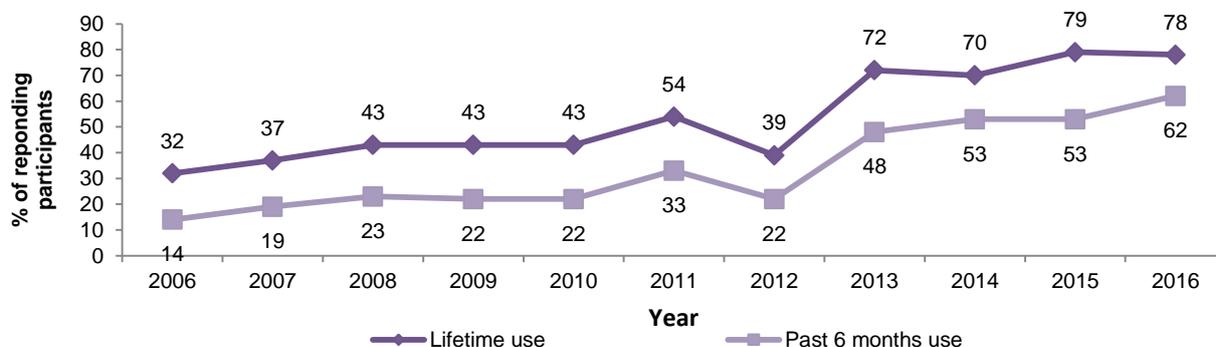
#### 4.9.4 MDA (3,4-methylenedioxyamphetamine)

Thirty per cent of the 2016 sample reported lifetime use of 3,4-methylenedioxyamphetamine (MDA) (35% in 2015) and 12% reported use in the preceding six months (20% in 2015). MDA use remained infrequent, occurring on a median of one day in the preceding six months (range 1–18 days), and typically involving a median of one and a half pills/tablets per episode of use (range 1–2 pills/tablets).

#### 4.9.5 Nitrous oxide

In 2016 the proportion of RPU reporting lifetime use changed little (78% vs. 79% in 2015), while a slightly larger proportion reported recent use (62% vs. 53% in 2015) (Figure 9). Recent users reported using a median of 10 bulbs during a typical session (range 1–400 bulbs), substantially more than the median reported in 2015 (four bulbs, range 1–75 bulbs). Eighteen per cent of recent users reported using nitrous oxide during their last stimulant drug binge.

**Figure 9: Lifetime and recent use of nitrous oxide, 2006–2016**



Source: EDRS participant interviews

#### 4.9.6 Amyl nitrite

The proportion of RPU who reported lifetime use of amyl nitrite (60%) was slightly smaller than in 2015 (67%), whilst the number of RPU who reported use in the last six months was slightly higher (36% vs. 28% in 2015). Amyl nitrite was used infrequently, with RPU reporting using on a median of two and a half days (range 1–40 days) in the preceding six months.

#### 4.9.7 Benzodiazepines

A slightly larger proportion reported lifetime benzodiazepine use than in 2015 (66% vs. 59%) and a significantly larger proportion reported recent use (52% vs. 34%,  $p < 0.05$ ). Of those who had used benzodiazepines in the preceding six months, the majority (88% lifetime, 80% recent) reported illicit use (not prescribed to them). Recent users reported use on a median of four days (1–180 days).

#### 4.9.8 Pharmaceutical stimulants

Lifetime use of any pharmaceutical stimulants (e.g. dexamphetamine; methylphenidate or Ritalin) (licit or illicit) was reported by 55% of RPU in 2016, almost identical to the figure in 2015 (54%). Almost all (98%) of the 34% of RPU who reported using pharmaceutical stimulants in the preceding six months had done so illicitly, similar to 2015 (91%). Illicit use was infrequent, with a median of four days of use in the preceding six months (range 1–18 days) involving a median of two pills (range 1–12 pills). Two participants reported using pharmaceutical stimulants the last time they used ecstasy.

#### 4.9.9 Heroin and pharmaceutical opioids

Reported lifetime use of heroin was slightly more prevalent in 2016 than in 2015 (15% vs. 11% respectively) and similarly for methadone (5% vs. 4% respectively) and other (licit or illicit) pharmaceutical opioids, such as morphine or oxycodone (46% vs. 42%, respectively).

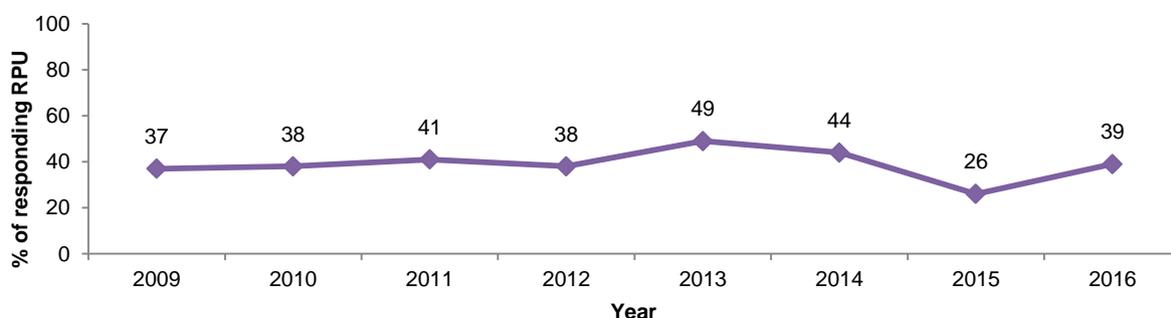
The proportions of RPU reporting using opiates or pharmaceutical opioids in the preceding six months in 2016 were comparable with 2015 for heroin (7% and 5% respectively), methadone (1% for both years) and pharmaceutical opioids (licit or illicit) (28% and 24% respectively). Three participants reported recent buprenorphine use in the preceding six months in 2016.

The majority (75%) of the 28% of RPU who reported using pharmaceutical opioids in the preceding six months had done so illicitly (not prescribed to them), similar to 2015 (79%). The median frequency of use was four days in the preceding six months (range 1–49 days), an increase from 2015 (median of one day, range 1–5 days).

#### 4.10 Bingeing on stimulants or related drugs

For the purpose of this study, bingeing is defined as using any drug(s) continuously for 48 hours or more without sleep (Ovendon & Loxley, 1996). A significantly larger proportion of RPU in 2016 reported bingeing on stimulants or related drugs in the preceding six months than in 2015 (39% vs. 26%,  $p < 0.05$ ). The median length of the longest binge was 48 hours (range 48–336 hours) and those who reported recent bingeing indicated having done so on a median of two occasions (range 1–52) during that period. Of those respondents who reported that they had recently binged on stimulants or related drugs ( $n=39$ ), ecstasy and tobacco were the most commonly reported drugs used while bingeing (82% equally), followed by cannabis (64%) and alcohol (using more than five standard drinks, 58%). The proportion of people reporting recent bingeing over time is presented below (Figure 10).

**Figure 10: Percentage of EDRS participants who reported recently bingeing\*, 2009–2016**



Source: EDRS participant interviews

\* Bingeing is defined as the use of drugs for 48 hours or more continuously without sleep

#### 4.11 NPS adverse effects

Forty-five per cent of the Victorian RPU sample reported that they had used an NPS in the past year, most commonly DMT ( $n=49$ ), 2C-x ( $n=16$ ), methoxetamine ( $n=11$ ) and Dextromethorphan (DXM – cough syrup) ( $n=7$ ). Among past year NPS consumers, 42% ( $n=19$ ) reported that they had experienced an unexpected adverse effect on their last occasion of use. The most common adverse effects reported were paranoia (37%), nausea/vomiting (32%) and restlessness/anxiety (26%) (Table 33). One participant reported seeking emergency medical help for an NPS in the past year.

**Table 13: Unexpected adverse effects among past-year NPS consumers, 2016**

VIC n=100	
<b>Unexpected adverse effect %</b>	
<b>Type of adverse effect %</b>	(n=19)
Paranoid	37
Nausea/vomiting	32
Restless/anxious	26
Heart racing or erratic	11
Visual hallucinations	16
Panic	16
Shaky hands/fingers	11
Auditory hallucinations	16
Overheating	5
Chest pain	5
Shortness of breath	0
Fingers/toes cold or numb	0
Angry or aggressive	0
Skin discoloured (blue/red)	0
Skin rash	0
Other	21

Source: EDRS participant interviews

## 5 DRUG MARKET: PRICE, PURITY, AVAILABILITY & SUPPLY

### Summary

- The median price of one ecstasy pill in 2016 was \$21.50, the lowest median ever recorded in the Victorian EDRS.
- The median price reported by RPU for a point of crystal methamphetamine also decreased in 2016 to \$40 from \$50 in 2015.
- All responding participants reported that crystal methamphetamine was either 'very easy' or 'easy' to obtain.
- The average purity of all seizures of methamphetamines analysed by the Victoria Police Forensic Services Department during the 2015/2016 financial year was 75.5%, similar to the purity measured in the 2014/2015 financial year (75%).
- Ketamine appears to be easier to obtain in 2016 than 2015, with a significantly smaller proportion who reported it to be 'more difficult' to obtain.

## 5.1 Ecstasy

### 5.1.1 Price

The median price of ecstasy reported by Victorian EDRS participants was \$21.50 per pill, the lowest median ever recorded in the Victorian EDRS (Table 13).

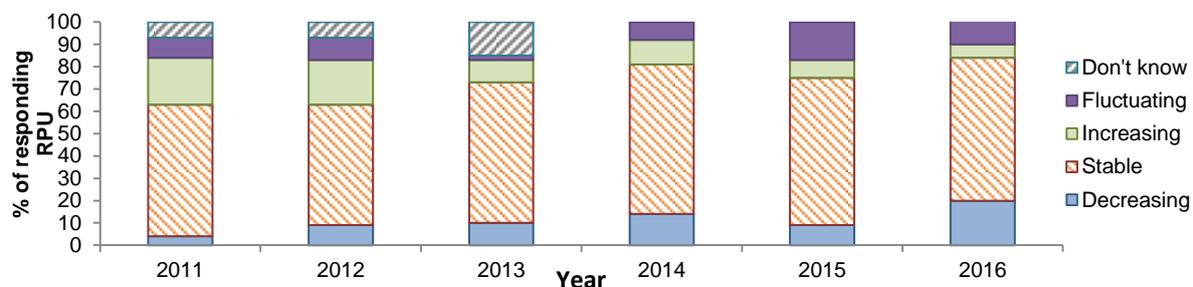
**Table 14: Price of ecstasy pill purchased by EDRS participants, 2011–2016**

Ecstasy	2011	2012	2013	2014	2015	2016
Median price per pill	\$25	\$30	\$30	\$25	\$25	\$21.5
(range)	(\$10-\$50)	(\$7-\$50)	(\$10-\$50)	(\$6-\$40)	(\$15-\$45)	(\$5-\$50)

Source: EDRS participant interviews

Consistent with previous years, most of the 2016 RPU sample reported that the price of ecstasy had remained stable in the six months prior to interview (64%) (Figure 11).

**Figure 11: Recent changes in price of ecstasy purchased by EDRS participants, 2011–2016**

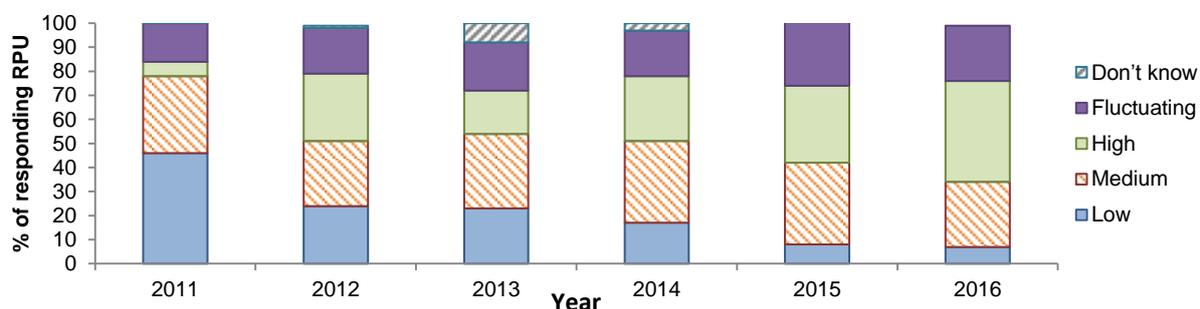


Source: EDRS participant interviews

### 5.1.2 Purity

There were more reports of 'high' ecstasy purity in 2016 (42% vs. 32% in 2015); this figure has been increasing steadily over the last three years. There were fewer reports of 'medium' (27% vs. 34%), 'low' (7% vs. 8%) and 'fluctuating' (23% vs. 27%) purities than in 2015.

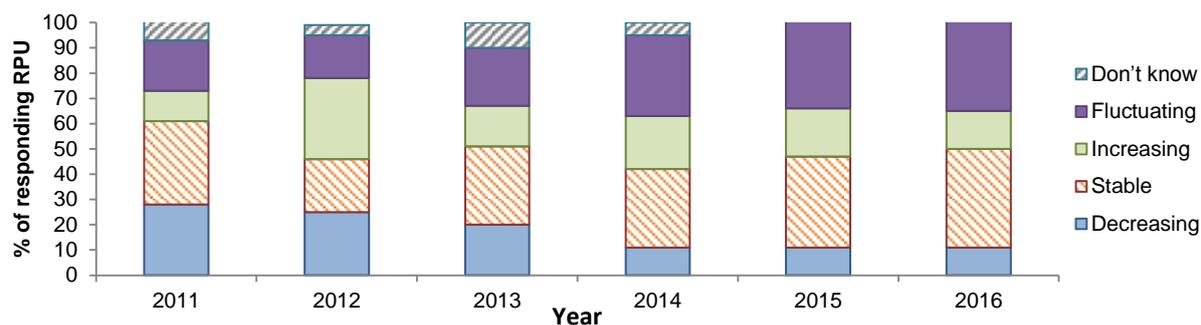
**Figure 12: RPU reports of current ecstasy purity, 2011–2016**



Source: EDRS participant interviews

As shown in Figure 13, the proportions of participants reporting changes in purity are similar to those for 2015 and 2014. Most (39%) participants reported 'stable' purity (36% in 2015), 15% reported 'increasing' purity (19% in 2015), 36% reported fluctuating purity (35% in 2015), 11% reported decreasing purity in 2016 and 2015, 15% reported increasing purity (19% in 2015) and 36% reported fluctuating purity (35% in 2015).

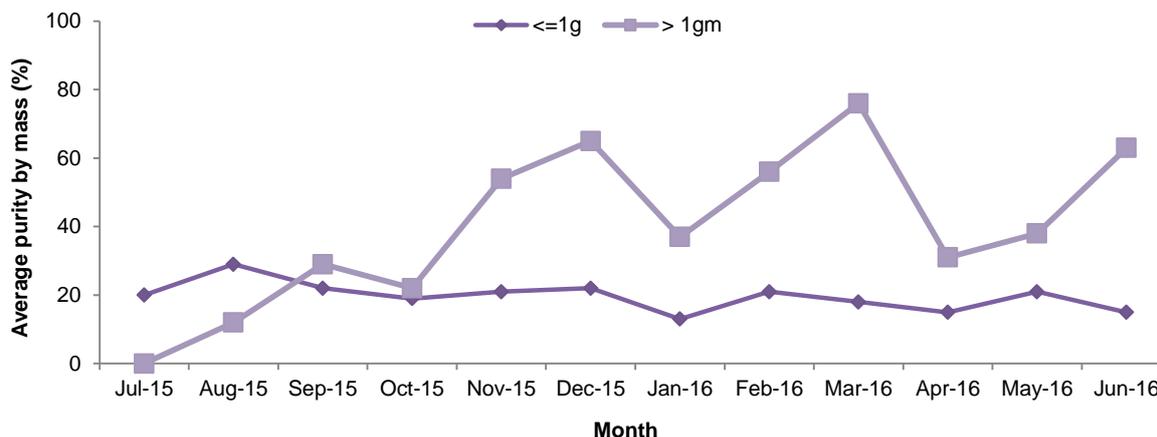
**Figure 13: RPU reports of change in purity of ecstasy in the preceding six months, 2011–2016**



Source: EDRS participant interviews

Ecstasy seizures analysed by the Victoria Police Forensic Services Department during the 2015/2016 financial year averaged 32% purity (range 12%–76%) (Figure 14) – slightly higher than the average in 2015 (29%).

**Figure 14: Purity of ecstasy seizures (includes MDMA, MDEA and MDA) by Victorian law enforcement, July 2015–June 2016**

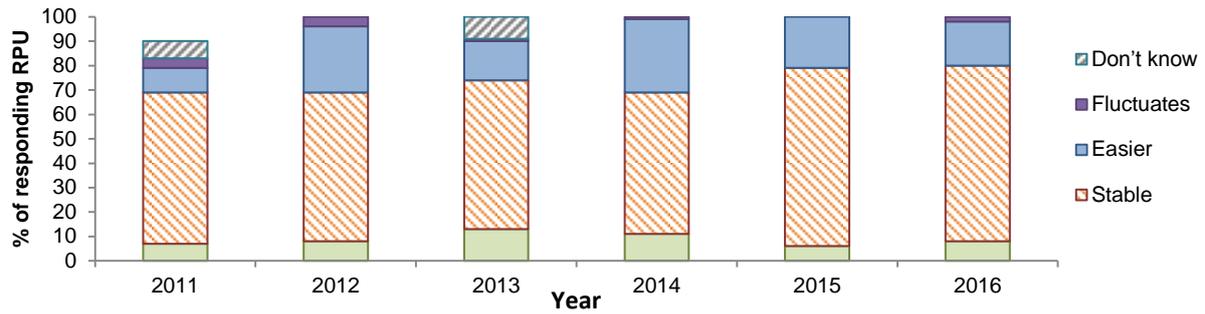


Source: Victoria Police Forensic Services Department

### 5.1.3 Availability

In 2016, the proportions of RPU who reported on current ecstasy availability were similar to those in 2015, indicating that very little has changed with regard to how easy it is to obtain. Fifty-nine per cent of RPU reported that ecstasy was ‘very easy’ to obtain (62% in 2015), 37% reported it to be ‘easy’ to obtain (36% in 2015), and four per cent reported it to be ‘difficult’ (two per cent in 2015). Consistent with the past three years, no RPU reported ecstasy to be ‘very difficult’ to obtain. Furthermore, proportions of RPU who reported on the change of ecstasy availability also remained comparable to 2015. Seventy-two per cent reported that it was ‘stable’ (73% in 2015), 18% reported that it was becoming ‘easier’, eight per cent reported it being ‘more difficult’ (6% in 2015), and two per cent reported that it ‘fluctuates’ (0% in 2015) (Figure 15).

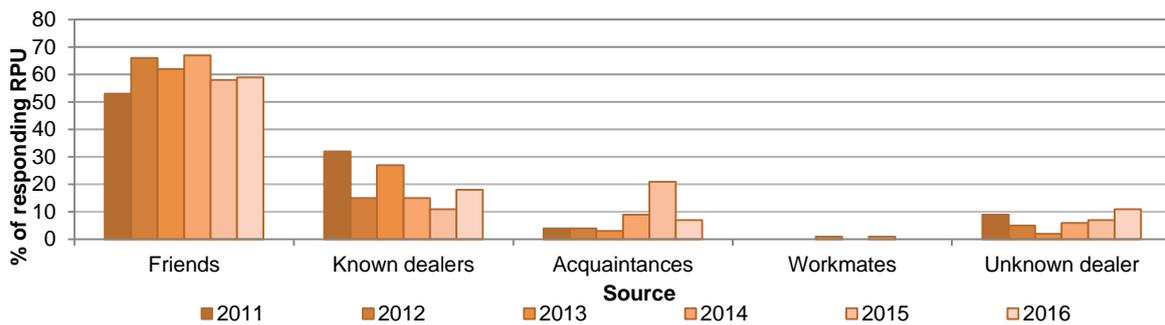
**Figure 15: RPU reports of changes in availability of ecstasy in the preceding six months, 2011–2016**



Source: EDRS participant interviews

As with previous years, most RPU interviewed in 2016 were able to report how they had obtained ecstasy the last time it was used in the six months preceding their interview. Among those who had obtained ecstasy, most (59%) obtained it from friends or known dealers (18%) (Figure 16). Additionally, ecstasy was reported to be most commonly obtained at a nightclub (29% vs. 17% in 2015) or at a friend’s home (17% vs. 30% in 2015) on the last occasion (Figure 17).

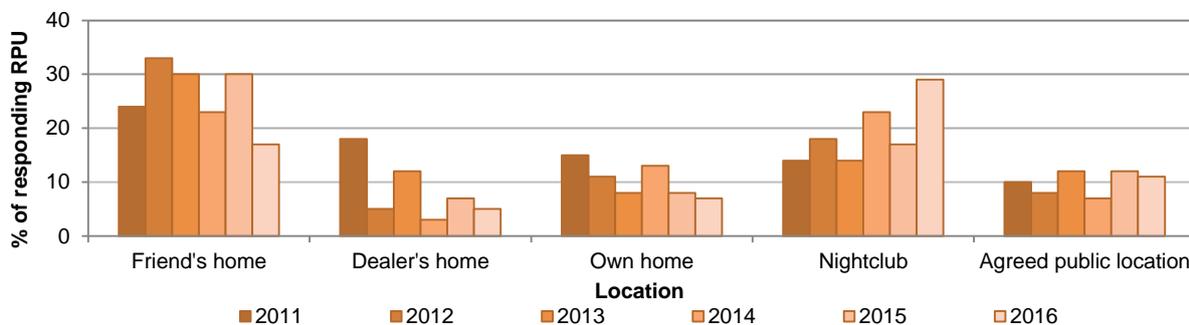
**Figure 16: People from whom ecstasy was last purchased in the preceding six months, 2011–2016**



Source: EDRS participant interviews

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

**Figure 17: Locations where ecstasy was last purchased in the preceding six months, 2011–2016**



Source: EDRS participant interviews

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

## 5.2 Methamphetamine

### 5.2.1 Price

Consistent with previous years, the median reported price per gram of speed was \$200 and the median price for a point \$20 (Table 15). Of the 21 RPU who commented on the recent price of speed in 2015, 67% reported that the price had remained stable in the preceding six months, with five per cent citing decreasing price (Figure 18).

The median reported price per point of crystal methamphetamine was \$40, a slight decrease from RPU reports in 2015 (\$50). The median price for a gram also decreased, to \$300 (\$400 in 2015). Among participants who commented on the recent price of crystal methamphetamine, more than half (54%) reported a decrease (vs. 62% in 2015) (Table 15). Equal proportions (15%) reported that price was stable and that it fluctuated.

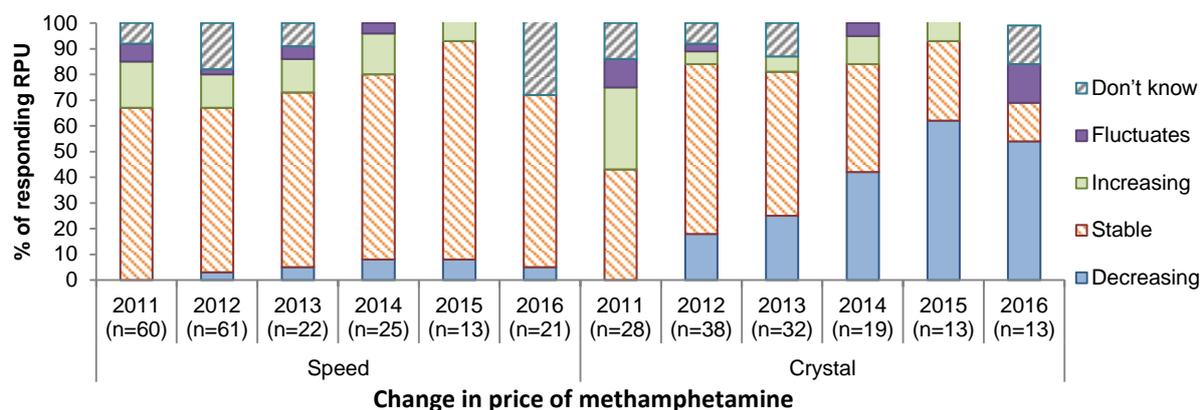
Only one participant was able to report on methamphetamine base prices, precluding further analyses.

**Table 15: Price of various methamphetamine forms purchased by RPU, 2011–2016**

Methamphetamine	2011	2012	2013	2014	2015	2016
<b>Speed – median price</b>						
Point	\$40	\$50	\$35	\$20	\$20	\$20
(range)	(\$20-\$100)	(\$14-\$200)	(\$20-100)	(\$20-25)	(\$10-\$50)	(\$15-\$20)
	n=25	n=7	n=10	n=4	n=6	n=3
Gram	\$200	\$200	\$200	\$200	\$200	\$200
(range)	(\$60-\$600)	(\$75-\$300)	(\$60-\$500)	(\$38-\$280)	(\$150-\$400)	(\$200-\$300)
	n=51	n=48	n=15	n=15	n=9	n=5
<b>Base – median price</b>						
Point	\$40		\$80	\$20	–	\$10
(range)	(\$20-\$60)	--	(\$30-\$100)			
	n=2		n=3	n=1		n=1
Gram	\$180	\$300	\$400	\$200	–	\$100
(range)	(\$60-\$450)	(\$300-\$350)	(\$300-750)			
	n=5	n=3	n=3	n=1		n=1
<b>Crystal – median price</b>						
Point	\$100	\$100	\$80	\$70	\$50	\$40
(range)	(\$20-\$200)	(\$60-\$200)	(\$40-100)	(\$20-120)	(\$50-\$100)	(\$40-\$60)
	n=19	n=32	n=29	n=17	n=13	n=8
Gram	\$800	\$700	\$600	\$550	\$400	\$300
(range)	(\$200-\$1000)	(\$300-\$800)	(\$300-\$850)	(\$300-\$750)	(\$400-\$400)	(\$200-\$350)
	n=19	n=21	n=18	n=10	n=1	n=5

Source: EDRS participant interviews

**Figure 18: Recent changes in price of speed and crystal methamphetamine purchased by EDRS participants, 2011–2016**



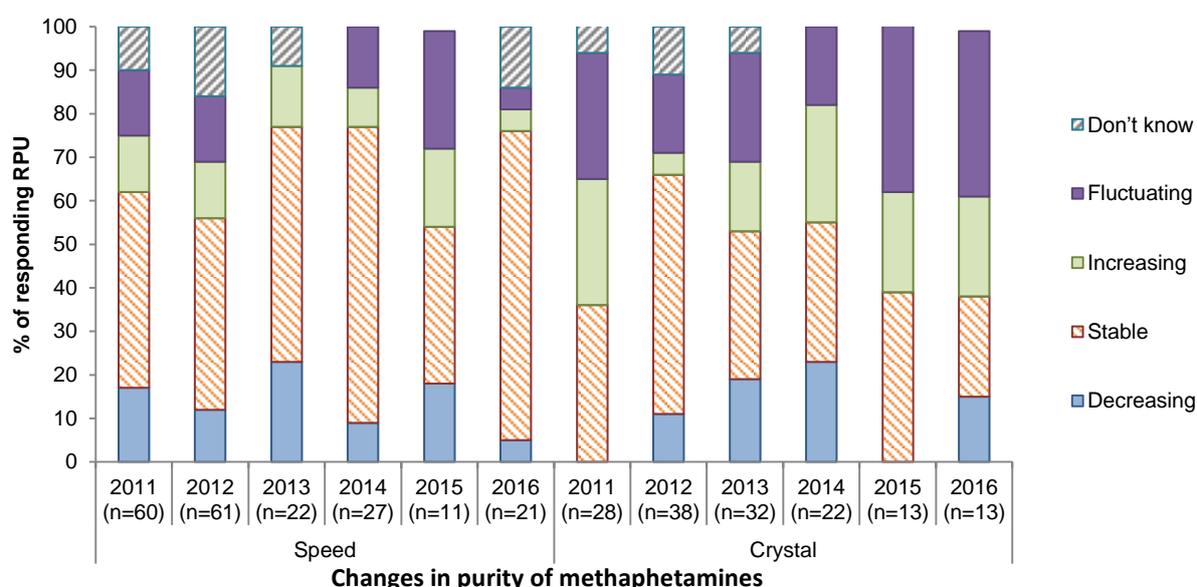
Source: EDRS participant interviews

### 5.2.2 Purity

In 2016, of the 21 participants who commented on the current purity of speed, most (52%) reported that it was of medium purity and 29% reported that it was of high purity. Equal (10%) proportions reported that the purity was low and ‘fluctuates’. The majority of respondents viewed the purity of speed as stable in the preceding six months (71% vs. 36% in 2015) (Figure 19).

Participants gave mixed responses about the current purity of crystal methamphetamine. Those who were able to comment (n=13) reported purity as medium (31%), high (38%) or fluctuating (31%). Additionally, equal proportions reported that crystal methamphetamine purity was stable and increasing (23% equally) while 38% reported that it fluctuated. Only 15% of responding RPU reported that purity was decreasing.

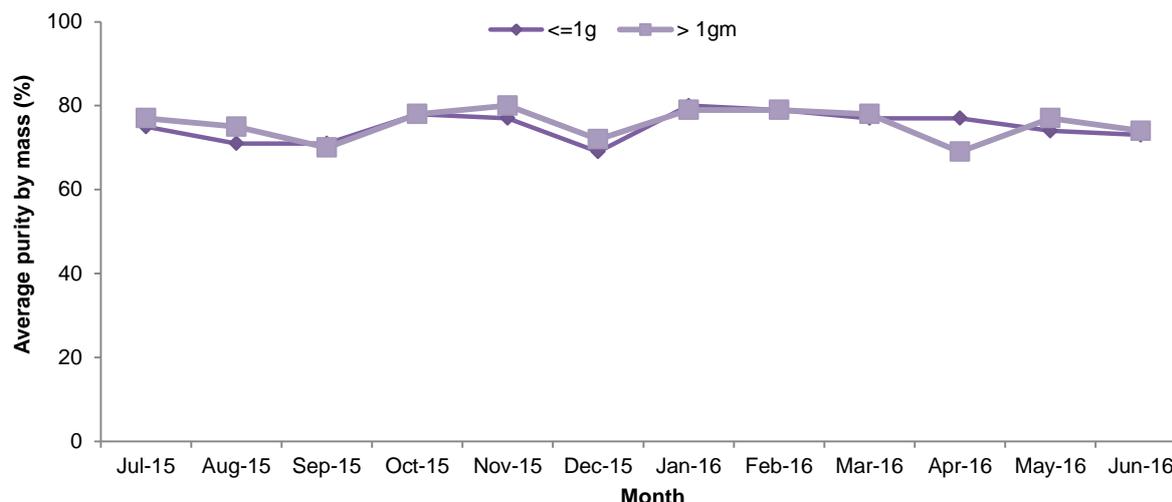
**Figure 19: Reports of change in purity of speed and crystal methamphetamine in the preceding six months among EDRS participants, 2011–2016**



Source: EDRS participant interviews

The average purity of all seizures of methamphetamines analysed by the Victoria Police Forensic Services Department during the 2014/2015 financial year was 75.5% (range 69%–80%) (Figure 20), comparable to the average purity measured in the 2014/2015 financial year (75%).

**Figure 20: Average purity of methamphetamine seizures by Victorian law enforcement, July 2015–June 2016**



Source: Victoria Police Forensic Services Department

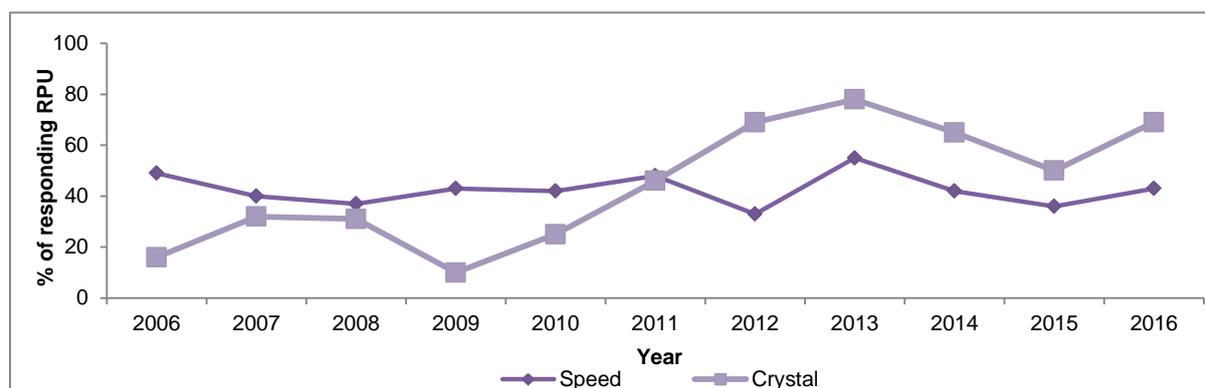
### 5.2.3 Availability

In 2016, 86% of all RPU who were able to comment on the current availability of speed reported that it was either 'easy' or 'very easy' to obtain (vs. 72% in 2015). Only 14% reported that it was 'difficult' to obtain (vs. 29% in 2015) (Figure 21). The majority (80%) of responding RPU also reported that the availability of speed remained stable (vs. 58% in 2015). Only five per cent reported that it was more difficult to obtain speed, and 15% reported that it was easier.

Of the RPU who commented on the availability of crystal methamphetamine in 2016 (n=13), all participants reported it as either 'easy' (31%) or 'very easy' (69%) to obtain in the preceding six months (Figure 21). Over half (58% vs. 53% in 2015) of responding RPU reported that the availability remained stable for crystal methamphetamine while one third (33%), consistent with 2015, reported that it was easier for them to obtain, and one participant (8%) stated that it was more difficult.

There was only one respondent for methamphetamine base, precluding analysis.

**Figure 21: Changes to current methamphetamine availability over time – percentage of EDRS participants who reported that it was 'very easy' to obtain speed and crystal methamphetamine in Victoria, 2006–2016**



Source: EDRS participant interviews

Similar to 2015, participants mostly reported last purchasing speed from friends (76% vs. 79%). Nightclubs were the most common venue where respondents last purchased speed (29%), followed by home, friend's home, and live music event/concert festival (14% equally). In relation to crystal

methamphetamine, in 2016, RPU most commonly reported last purchasing from friends (42%) or a known dealer (33%) and obtaining it at their friend's home (42%) or dealer's home (25%).

There was only one respondent for methamphetamine base, which precluded analysis.

## 5.3 Cocaine

### 5.3.1 Price

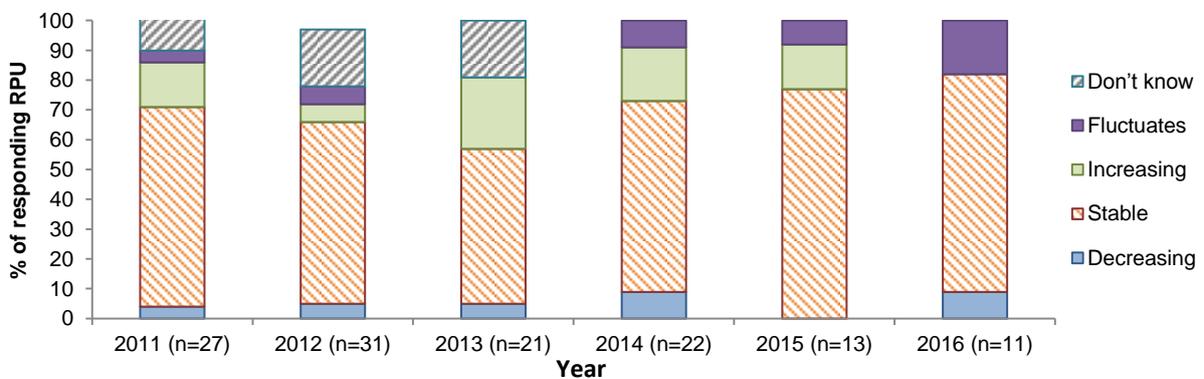
In 2016, the median reported price of cocaine was \$300 per gram, remaining stable from 2013 (Table 16). Of the RPU able to comment on the change in price of cocaine, a similar proportion in 2016 reported it as stable when compared to 2015 (73% vs. 77% in 2015) (Figure 22).

**Table 16: Price of cocaine purchased by EDRS participants, 2011–2016**

Cocaine	2011	2012	2013	2014	2015	2016
Median price per gram	\$320	\$350	\$300	\$300	\$300	\$300
(range)	(\$200-\$500) n=23	(\$250-\$400) n=27	(\$150-\$400) n=19	(\$100-\$450) n=20	(\$280-\$400) n=11	(\$250-\$350) n=13

Source: EDRS participant interviews

**Figure 22: Recent changes in price of cocaine purchased by EDRS participants, 2011–2016**

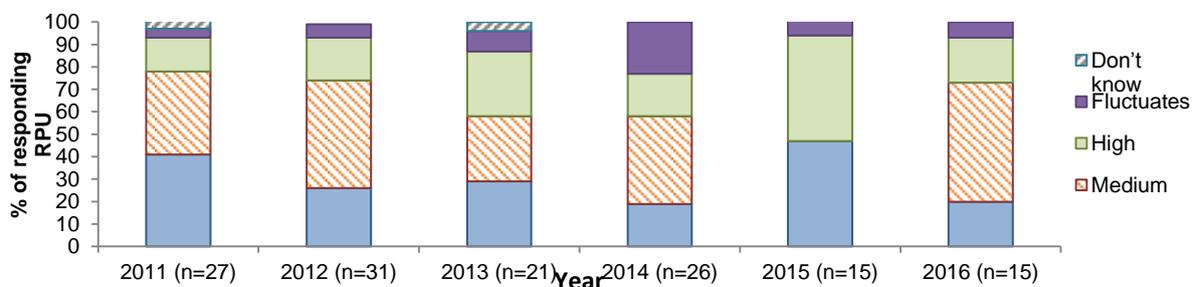


Source: EDRS participant interviews

### 5.3.2 Purity

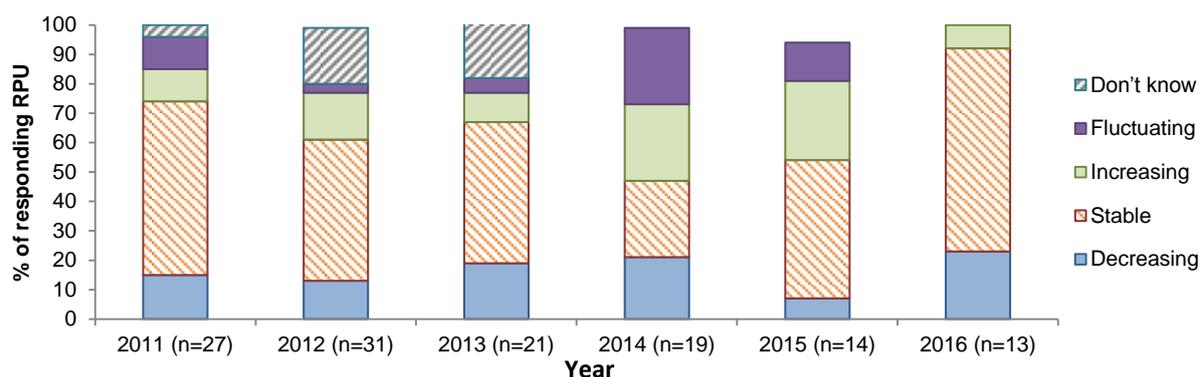
Of the 2016 RPU sample who commented (n=15), most (53%) perceived current cocaine purity to be medium while some reported it to be either low or high (20% each). In contrast, there were no reports of medium purity in 2015, with participants noting either low or high purity equally (47%) (Figure 23). Over two-thirds of responding RPU reported that purity remained stable in the six months preceding their interview (vs. 47% in 2015), followed by 23% of RPU who reported that it was decreasing. Only eight per cent reported that purity was increasing (Figure 24).

**Figure 23: RPU reports of current cocaine purity, 2011–2016**



Source: EDRS participant interviews

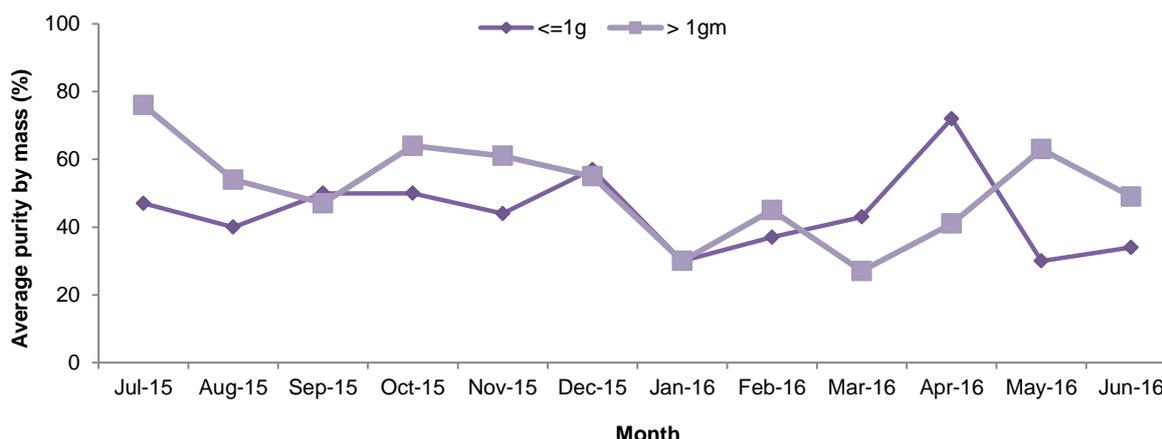
**Figure 24: RPU reports of changes in cocaine purity in the past six months, 2011–2016**



Source: EDRS participant interviews

Cocaine seizures analysed by the Victoria Police Forensic Services Department during the 2015/2016 financial year averaged 48% purity (range 30%–76%), a figure slightly lower than in the previous financial year (50% in 2014/2015) (Figure 25).

**Figure 25: Average purity of cocaine seizures by Victorian law enforcement, July 2015-June 2016\***

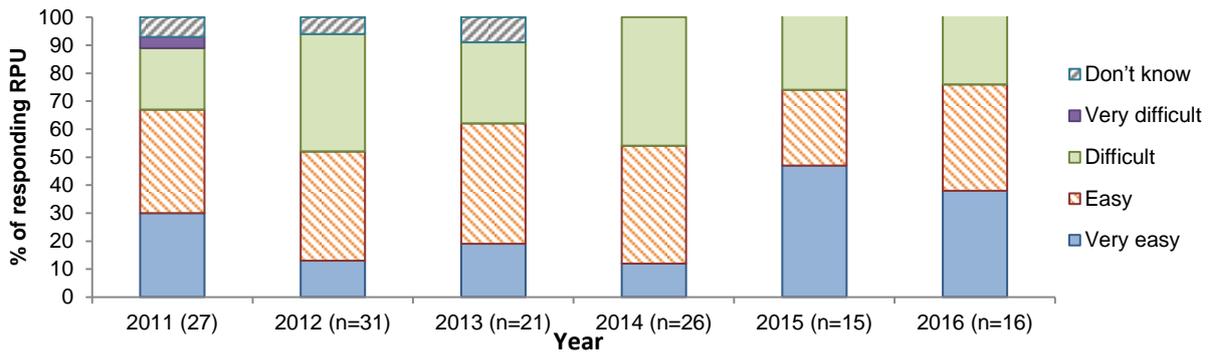


Source: Victoria Police Forensic Services Department

### 5.3.3 Availability

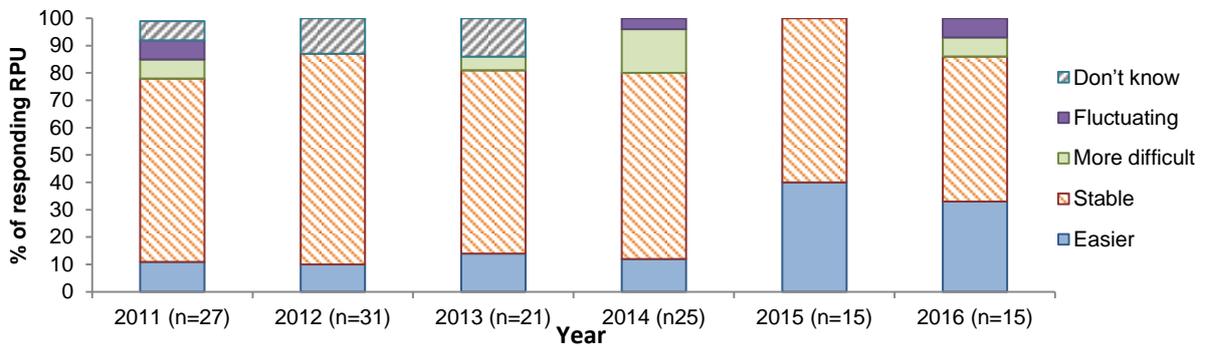
In 2016, most RPU who were able to comment noted that cocaine was either 'easy' (38% vs. 27% in 2015) or 'very easy' (38% vs. 47% in 2015) to obtain, while 25% (vs. 27% in 2015) perceived it to be 'difficult' to obtain. Consistent with the last four years, there were no reports of cocaine being 'very difficult' to obtain (Figure 26). Consistent with 2015, most RPU reported that the availability of cocaine remained stable (53% vs. 60% in 2015), followed by 33% who reported that it was easier to obtain and 7% who believed it was more difficult (Figure 27).

**Figure 26: Current availability of cocaine, 2011–2016**



Source: EDRS participant interviews

**Figure 27: Changes in cocaine availability in the preceding six months, 2011–2016**



Source: EDRS participant interviews

As in previous years, RPU who commented on the last person from whom they purchased cocaine in 2016 (n=15) reported obtaining it mainly from friends (73.3% vs. 40% in 2015) or a known dealer (20% vs. 40% in 2015). The most common locations where cocaine was purchased were at a 'nightclub' (27%) followed by 'friend's home' (20%), and 'private parties' and 'agreed public location' equally (13%).

## 5.4 Ketamine

### 5.4.1 Price

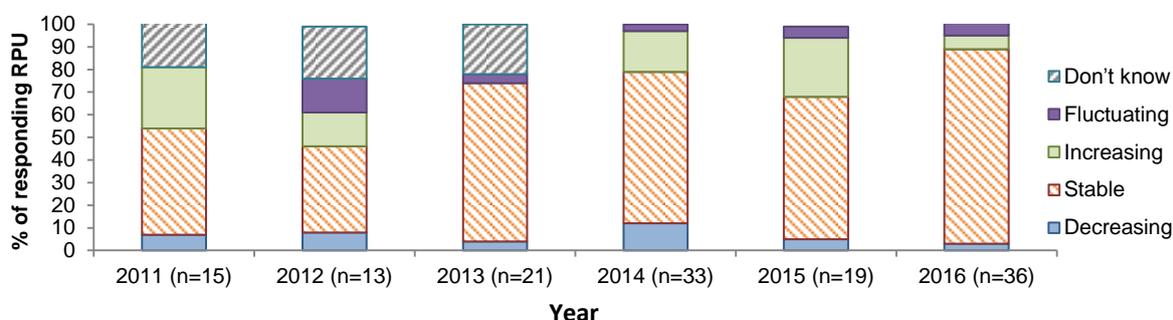
The median reported price of ketamine decreased slightly in 2016 to \$180 per gram after remaining at \$200 per gram for the last four years (Table 17). Most (86%) participants reported that the price had remained 'stable' in the preceding six months (vs. 63% in 2015) and only six per cent reported that it was 'increasing' (vs. 26% in 2015) (Figure 28).

**Table 17: Price of ketamine purchased by RPU, 2016–2016**

Ketamine	2011	2012	2013	2014	2015	2016
Median price per gram	\$200	\$200	\$200	\$200	\$200	\$180
(range)	(\$80-\$400)	(\$150-\$300)	(\$30-\$300)	(\$100-\$400)	(\$150-\$230)	(\$50-\$320)
	n=15	n=12	n=21	n=25	n=10	n=15

Source: EDRS participant interviews

**Figure 28: Recent changes in price of ketamine purchased by RPU, 2011–2016**

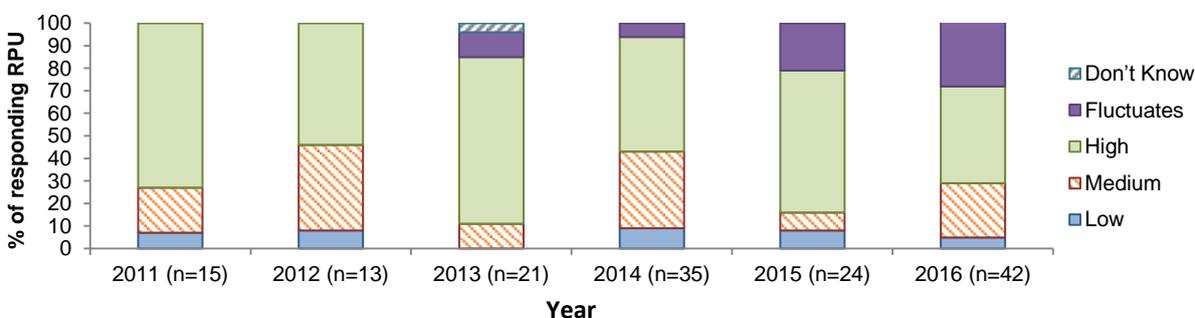


Source: EDRS participant interviews

### 5.4.2 Purity

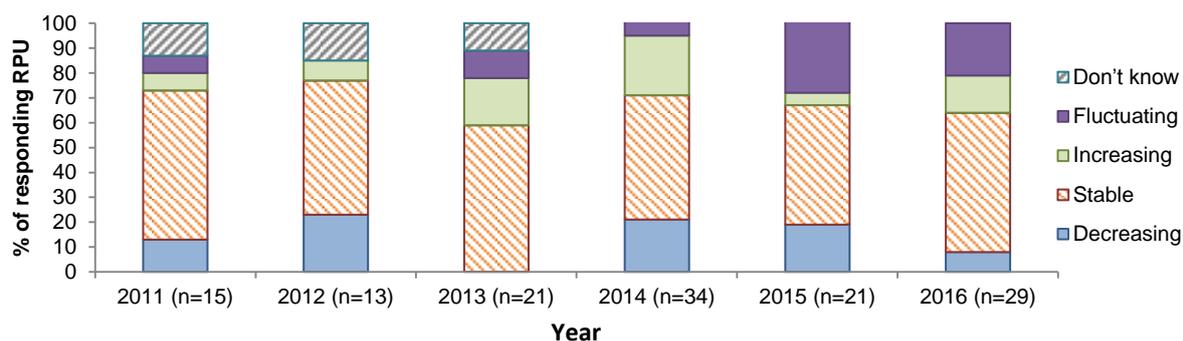
The majority (43%) of responding RPU perceived current ketamine purity to be high (vs. 63% in 2015) whilst 29% perceived that it was fluctuating. A higher proportion (24%) reported medium purity than last year (8%) and the proportion of RPU reporting 'low' purity remained small (5% vs. 8% in 2015) (Figure 29). Responses for change in ketamine purity this year were comparable to 2015. Most participants noted that the price of ketamine was 'stable' (56% vs. 48% in 2015) and 21% reported that it was 'fluctuating' (29% in 2015) (Figure 30).

**Figure 29: RPU reports of current purity of ketamine, 2011–2016**



Source: EDRS participant interviews

**Figure 30: RPU reports of recent change in ketamine purity, 2011–2016**



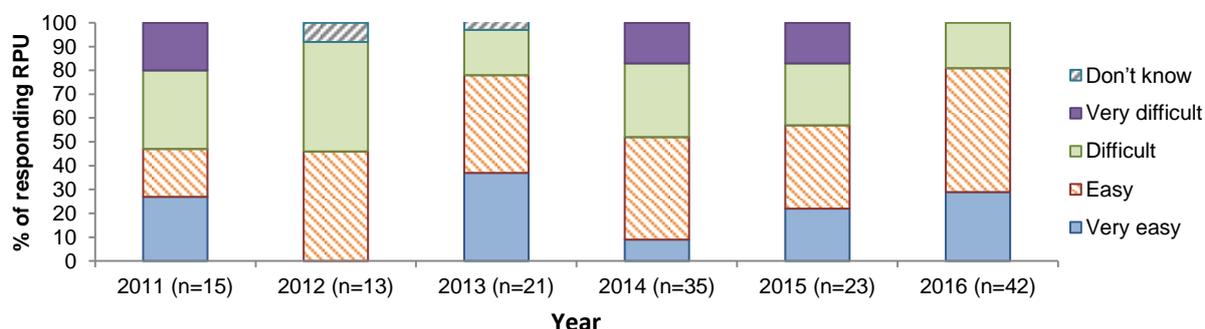
Source: EDRS participant interviews

### 5.4.3 Availability

Ketamine appears to be becoming easier to obtain in 2016. Of the RPU who were able to comment in 2016 (n=42), a significantly larger proportion reported that it was either ‘easy’ or ‘very easy’ to obtain when compared to 2015 (81% vs. 57% in 2015,  $p < 0.05$ ). Only 19% reported that it was difficult to obtain (vs. 26% in 2015) and there were no reports of ketamine being ‘very difficult’ to obtain (vs. 17% in 2015) (Figure 31).

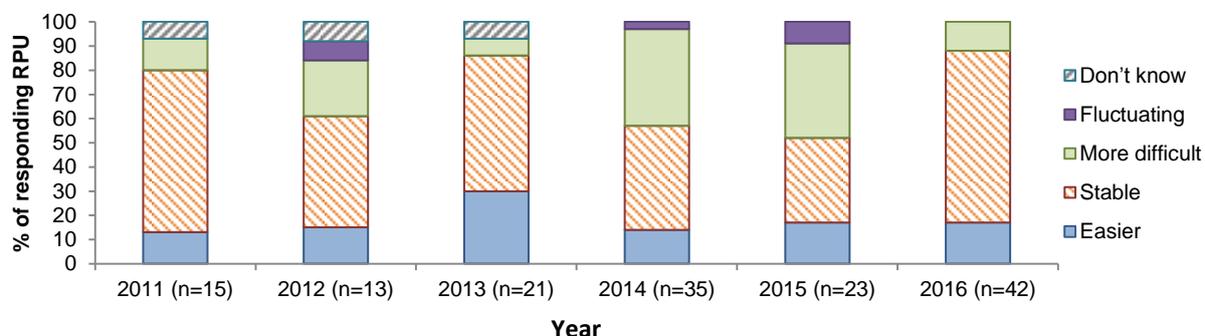
A significantly larger proportion reported that ketamine was ‘stable’ in 2016 (71% vs. 35% in 2015,  $p < 0.05$ ). Consistent with 2015, 17% reported that it was ‘easier’ to obtain and a significantly lower proportion of participants reported that it was ‘more difficult’ to obtain (12% vs. 39% in 2015,  $p < 0.05$ ) (Figure 32).

**Figure 31: RPU reports of current ketamine availability, 2011–2016**



Source: EDRS participant interviews

**Figure 32: Changes in availability of ketamine over the past six months, 2011–2016**



Source: EDRS participant interviews

Among RPU who commented about the last person from whom they purchased ketamine in 2016 (n=43), most reported obtaining it from friends (61%). The most common locations where ketamine was more recently purchased were a nightclub (36%) followed by a friend’s home (21%).

## 5.5 GHB

### 5.5.1 Price

Only four participants in the 2016 sample were able to comment on the current price of GHB; the median of their reported prices was \$2 per ml (Table 18).

**Table 18: Price of GHB purchased by RPU, 2011–2016**

GHB	2011	2012	2013	2014	2015	2016
Median price per ml	\$3	\$3	\$5	\$3	\$2.5	\$2
(range)	(\$0.35-\$3)	(\$3-\$4)	(\$2-\$12)	(\$2-\$4)	(\$2-\$3)	(\$1-\$3)
	n=3	n=7	n=5	n=6	n=2	n=4

Source: EDRS participant interviews

### 5.5.2 Purity

Too few RPU were able to comment.

### 5.5.3 Availability

Too few RPU were able to comment.

## 5.6 LSD

### 5.6.1 Price

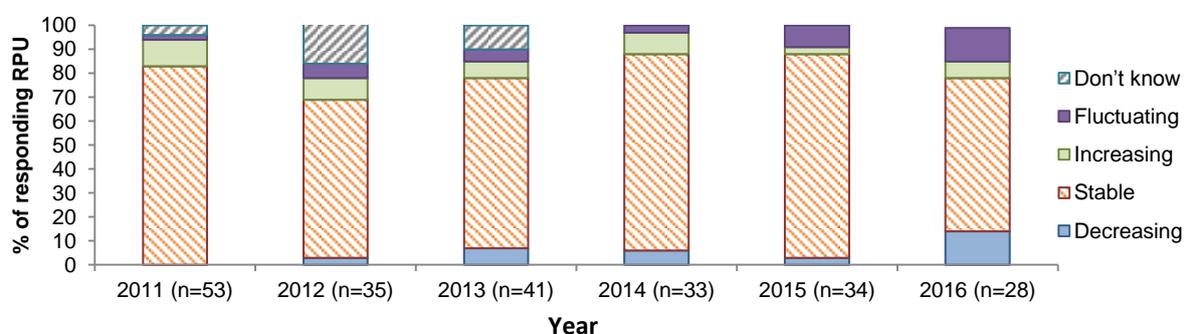
The median reported price of LSD increased to \$20 in 2016 (vs. \$15 in 2015) (Table 19). However, most (64%) RPU reported that the price of LSD had remained stable in the preceding six months, with a slightly larger proportion (14% vs. 9% in 2015) reporting that it was fluctuating (Figure 33).

**Table 19: Prices of LSD purchased by EDRS participants, 2011-2016**

LSD	2011	2012	2013	2014	2015	2016
Median price per tab	\$15	\$15	\$15	\$15	\$15	\$20
(range)	(\$10-\$30)	(\$10-\$50)	(\$10-\$30)	(\$5-\$20)	(\$10-\$30)	(\$7-\$45)

Source: EDRS participant interviews

**Figure 33: Recent changes in price of LSD purchased by EDRS participants, 2011–2016**

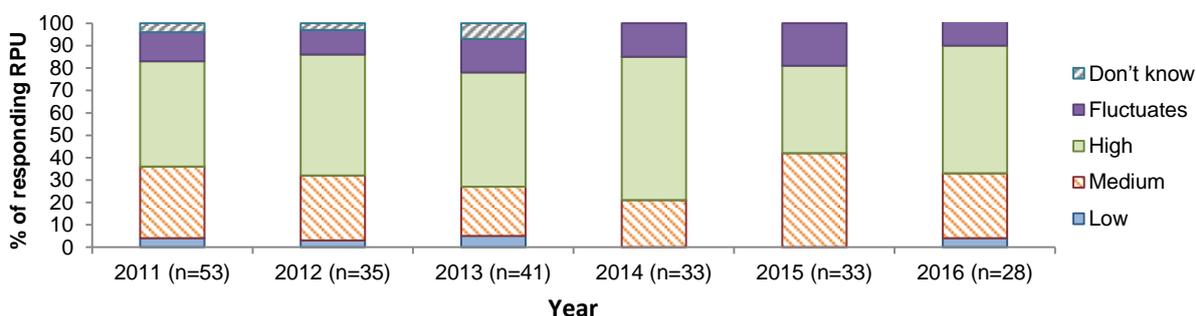


Source: EDRS participant interviews

### 5.6.2 Purity

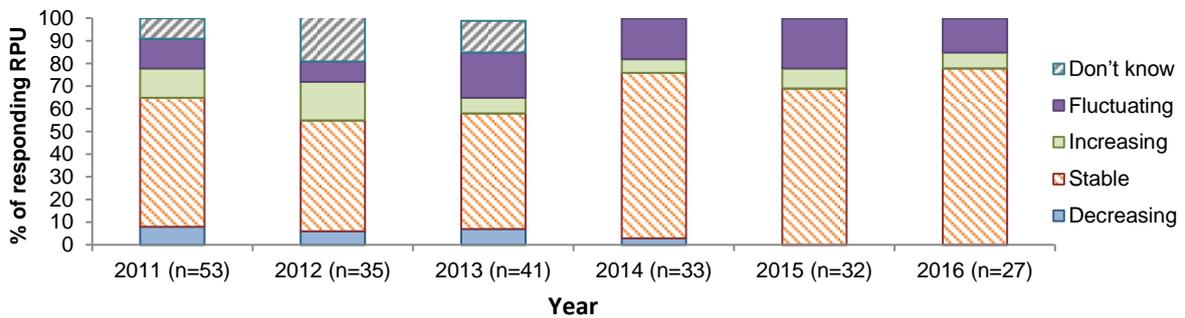
Consistent with previous years, the majority of recent LSD users reported the purity of LSD as high (57%) in 2016 (Figure 34) and stable (78%) over the six months preceding interview (Figure 35).

**Figure 34: RPU reports of purity of LSD in the preceding six months, 2011–2016**



Source: EDRS participant interviews

**Figure 35: RPU reports of change in purity of LSD in the preceding six months, 2011–2016**

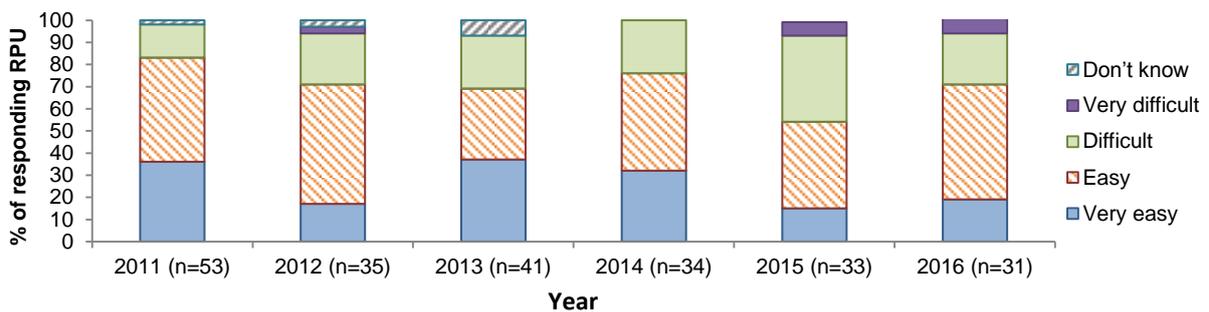


Source: EDRS participant interviews

### 5.6.3 Availability

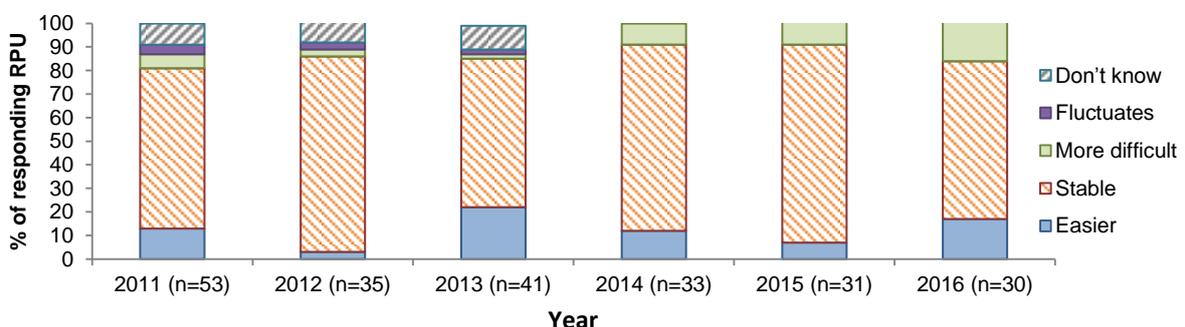
In 2016, a larger proportion (71%) of RPU reported that LSD was either 'easy' or 'very easy' to obtain in the six months preceding their interview than in 2015 (54% in 2015) (Figure 36). A smaller proportion of responding RPU reported that LSD availability remained 'stable' (67% vs. 84% in 2015), with more participants reporting that it was either 'easier' or 'more difficult' to obtain (17% equally vs. 7% and 10% respectively in 2015) (Figure 37).

**Figure 36: Current LSD availability, 2011–2016**



Source: EDRS participant interviews

**Figure 37: Changes in availability of LSD, 2011–2016**



Source: EDRS participant interviews

Similar to 2015, the last person from whom 2016 RPU purchased LSD was most often a friend (50%). The most common location for the last purchase of LSD was at a 'live music event/concert/festival' (31%).

## 5.7 Cannabis

### 5.7.1 Price

Participants were asked questions about the price, potency and availability of both hydroponic cannabis and bush/naturally-grown cannabis.

The median price of hydroponic cannabis remained unchanged at \$15 for a gram in 2016. The median price for an ounce of hydroponic cannabis decreased slightly to \$235. The median price of a gram of bush cannabis (\$12.5 in 2016) increased slightly from 2015 (\$10) (Table 20).

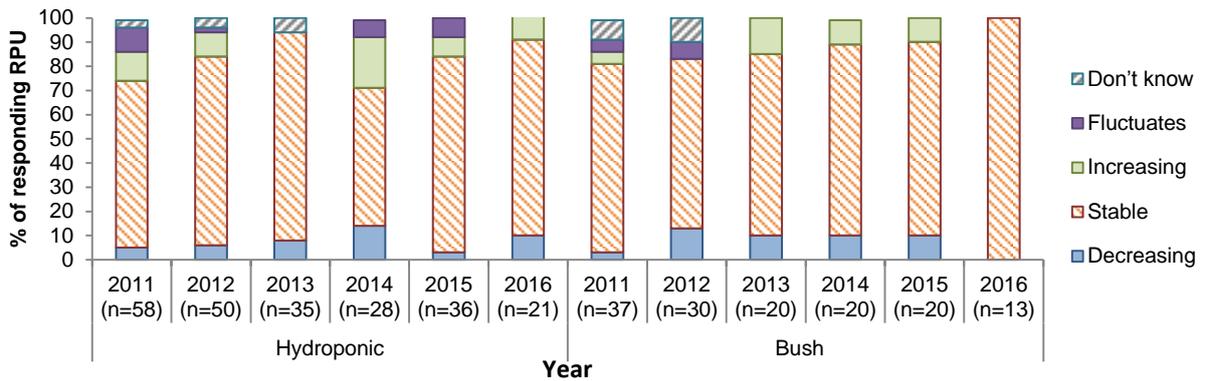
**Table 20: Price of cannabis purchased by EDRS participants, 2011–2016**

Cannabis	2011 (n=101)	2012 (n=100)	2013 (n=100)	2014 (n=100)	2015 (n=100)	2016 (n=100)
<b>Median price (range)</b>						
Hydroponic						
Gram	\$18.75 (\$10-\$30) n=44	\$15 (\$10-\$25) n=33	\$15 (\$10-\$25) n=19	\$15 (\$7-\$20) n=15	\$15 (\$10-\$25) n=19	\$15 (\$10-\$20) n=8
Ounce	\$250 (\$70-\$320) n=38	\$250 (\$150-\$320) n=23	\$250 (\$200-\$300) n=12	\$230 (\$200-\$300) n=13	\$245 (\$150-\$300) n=18	\$235 (\$200-\$360) n=6
Bush						
Gram	\$15 (\$10-\$70) n=30	\$15 (\$5-\$65) n=22	\$12 (\$10-\$15) n=13	\$15 (\$5-\$25) n=11	\$10 (\$10-\$30) n=11	\$12.5 (\$10-\$20) n=6
Ounce	\$245 (\$120-\$300) n=22	\$240 (\$100-\$300) n=17	\$200 n=2	\$220 (\$180-\$300) n=10	\$210 (\$150-\$250) n=8	- n=0

Source: EDRS participant interviews

Prices of cannabis were commonly reported as being stable in the preceding six months by the majority (81%) of both recent hydroponic cannabis users (n=21) and all recent bush cannabis users (100%, n=13) (Figure 38).

**Figure 38: Recent changes in price of hydroponic and bush cannabis purchased by EDRS participants, 2011–2016**

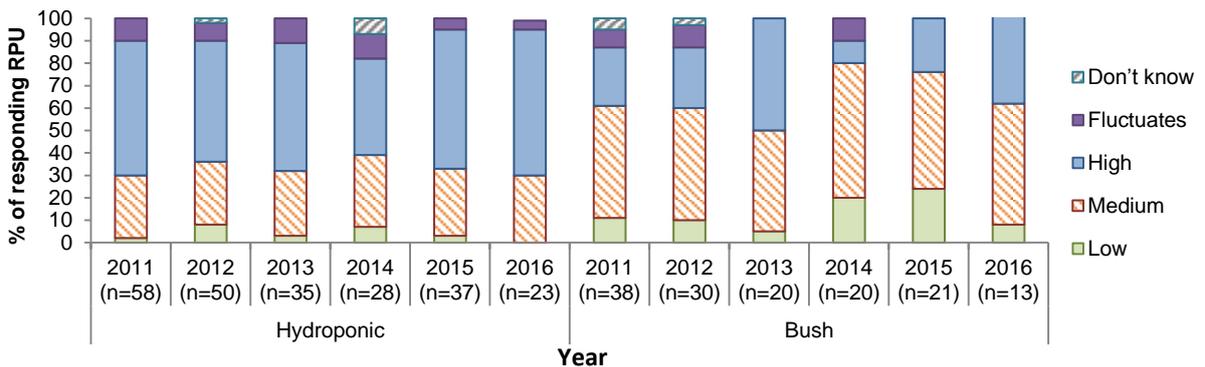


Source: EDRS participant interviews

### 5.7.2 Potency

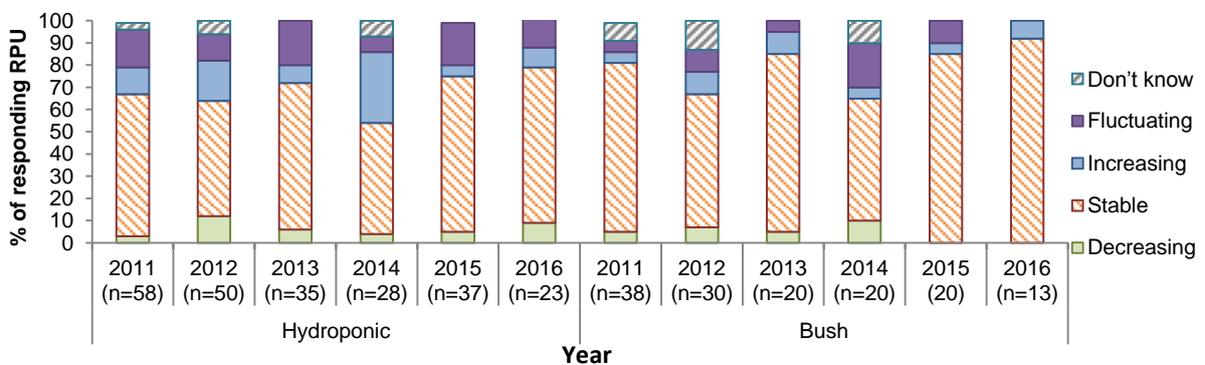
In 2016, potency was typically reported as being medium or high for both hydroponic and bush cannabis (95% and 93% respectively) (Figure 39). The majority (70%) of participants reported hydroponic cannabis potency to be stable in the preceding six months, as did most (92%) of the participants who were able to comment on the potency of bush cannabis, similar to 2015 (Figure 40).

**Figure 39: Reports of current hydroponic and bush cannabis potency by RPU, 2011–2016**



Source: EDRS participant interviews

**Figure 40: Reports of changes in hydroponic and bush cannabis potency, 2011–2016**

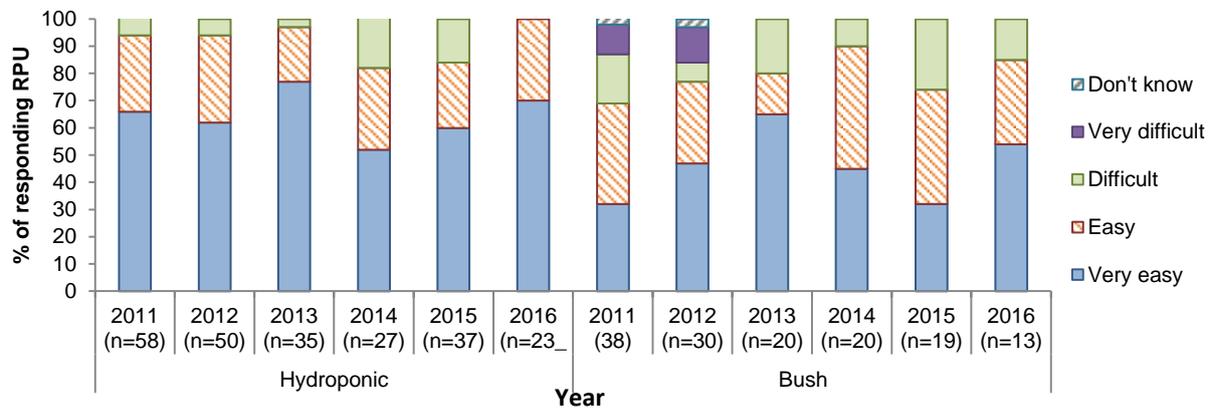


Source: EDRS participant interviews

### 5.7.3 Availability

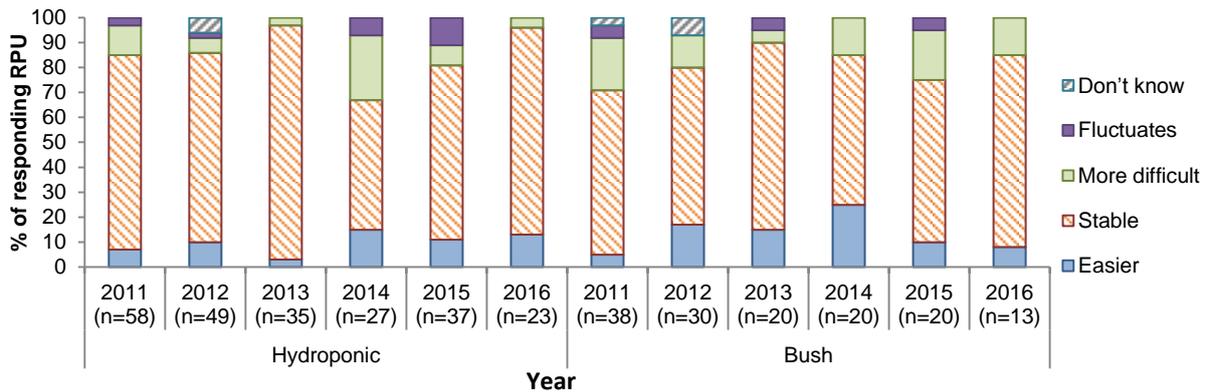
In 2016, of the participants who were able to comment, the majority reported both hydroponic and bush cannabis as either 'easy' or 'very easy' to obtain (100% and 86% respectively) (Figure 41). Typically, both hydroponic and bush cannabis availability was reported to be stable in the preceding six months (83% and 77% respectively) (Figure 42).

**Figure 41: Current availability of hydroponic and bush cannabis, 2011–2016**



Source: EDRS participant interviews

**Figure 42: Recent changes in availability of hydroponic and bush cannabis, 2011–2016**



Source: EDRS participant interviews

Consistent with past years, most RPU reported that the last person they purchased cannabis from was a friend (65% for hydroponic and 85% for bush cannabis) or known dealer (26% for hydroponic and 15% for bush cannabis). Most of those who commented on the last location where they purchased cannabis reported obtaining it at a friend's home (35% hydroponic and 46% bush).

## 6 HEALTH-RELATED TRENDS ASSOCIATED WITH USE OF ECSTASY & RELATED DRUGS

### Summary

- Twenty-five participants (78%) reported experiencing an overdose after taking a stimulant drug in the preceding 12 months, most commonly after taking ecstasy.
- Twenty-four participants (56%) reported experiencing an overdose after taking a depressant drug in the preceding 12 months, most commonly after consuming alcohol.
- The health service participants most commonly reported using in the six months preceding interview was a general practitioner (83%).
- Twenty-one participants reported they had accessed a health or medical service in relation to their ERD use in the preceding six months.
- When compared to 2015, a significantly higher percentage of participants in 2016 scored in the 'high' and 'very high range' on the 10-item Kessler Psychological Distress Scale (K10), indicating higher levels of distress experienced in the preceding four weeks.

## 6.1 Overdose and drug-related fatalities

Since 2008, questions have been included in the EDRS interview schedule inquiring about drug overdose, split into stimulant drug overdose and depressant drug overdose.

In 2016, 32 participants reported that they had overdosed on any stimulant drug(s) at some point in their lifetime (vs. 18 in 2015) on a median of two occasions (range 1–15 times). Of those who had ever overdosed on stimulants, 25 participants (78%) reported having done so in the preceding 12 months, a significantly higher proportion than in 2015 (n=14, p<0.05). Participants noted ecstasy (68%), LSD (14%), and crystal methamphetamine (9%) as the main drugs associated with their most recent stimulant overdose, which reportedly occurred most commonly at a nightclub (55%) followed by a live music event (18%) and a friend's home (14%). The most commonly reported symptom was delirium/confusion (18%) followed by nausea, and vomiting (14% equally). In contrast to 2015, most participants noted that there was a person not under the influence of alcohol and/or drugs present to assist when their most recent overdose occurred (64% vs. 29% in 2015). Fifteen participants (68%) reported receiving treatment during or as a result of their most recent overdose; most (64%) of these participants stated they were monitored or watched by a friend.

Forty-three participants reported that they had ever overdosed after taking a depressant drug (including alcohol), on a median of three occasions (range 1–150) during their lifetime. Of those who reported a depressant overdose, 24 (56%) had experienced this in the preceding 12 months. Most (73%) attributed their most recent depressant overdose (occurring in the preceding 12 months) to alcohol, followed by GHB (12%). The main symptoms experienced were losing consciousness (50%) and vomiting (39%). The most common location of the most recent depressant overdose was at home (30%), followed by a nightclub (26%), a private party, and friend's home (both 13%). Twenty participants (77%) noted that there was someone sober present to assist them. Seventeen participants (90%) reported being monitored/watched by friends at the time.

## 6.2 Help-seeking behaviour & health service access

Twenty-one per cent of the 2016 sample reported they had used a health or medical service in relation to their drug use in the six months preceding interview (9% in 2015). An additional six per cent reported thinking about using a health service in relation to their drug use, but did not contact a service.

EDRS participants were also asked about the health services they had accessed in the preceding six months. Ninety-four participants reported accessing at least one health service. The health services most commonly accessed were general practitioners (83%) followed by dentists (35%).

## 6.3 Drug treatment

### 6.3.1 Alcohol and Drug Information System (ADIS)

Data on people seeking treatment from specialist alcohol and other drug agencies in Victoria are collected via the ADIS. During the 2015/2016 financial year, 57,986 courses of treatment were delivered to 31,131<sup>2</sup> clients in Victorian specialist alcohol and other drug services, compared to 50,523 courses of treatment and 28,492 clients during the 2014/2015 financial year<sup>3</sup>. Of the courses of treatment delivered, approximately 19% were delivered to approximately 17% of clients for amphetamine problems, making amphetamines the second most prevalent main presenting drug problem after alcohol (29%). Only 0.20% of the courses of treatment were delivered to 0.26% of clients for ecstasy (ADIS database, Victorian Department of Health, unpublished data).

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<sup>2</sup> Clients in specialist alcohol and drug services include both drug users and non-users. Non-users may include partners, family or friends.

<sup>3</sup> The reduction in Victorian Alcohol and Other Drug Treatment activity is associated with service system reform during 2014-15.

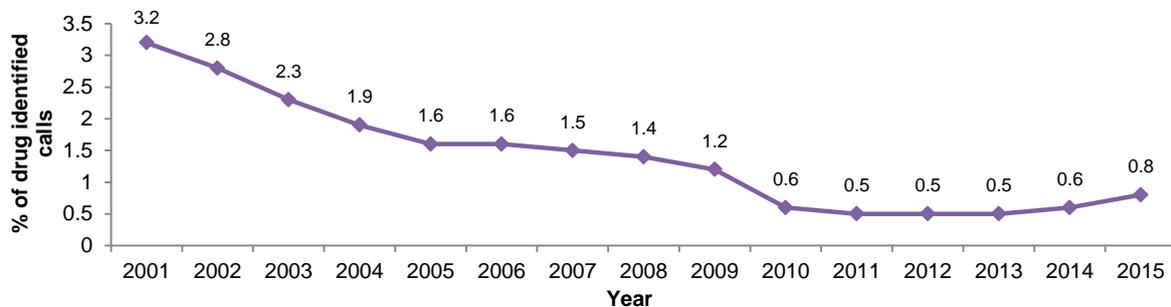
### 6.3.2 DirectLine

DirectLine is a 24-hour specialist telephone service in Victoria (operated by Turning Point Alcohol & Drug Centre) that provides counselling, referral and advice about drug use and related issues. All calls to DirectLine are logged to an electronic database that can provide information about caller drugs of concern, calls from drug users and calls about drug users. This report presents DirectLine data for the period 1999–2015. Amphetamine data has not been included in this report due to the introduction of the 'Ice Advice Line' where methamphetamine related calls have been directed to since its launch in early 2015.

#### Ecstasy

During 2015, DirectLine received 222 calls in which ecstasy was identified as a drug of concern; this represents 0.8% of all drug-identified calls to DirectLine in that year (Turning Point, unpublished data). The percentage of drug-related calls in which ecstasy was identified as the drug of concern steadily declined from 2001 to 2005, plateaued, declined from 2009 to 2011, then plateaued again (Figure 43).

**Figure 43: Proportion of calls to DirectLine in which ecstasy was identified as drug of concern, Victoria 2001–2015**

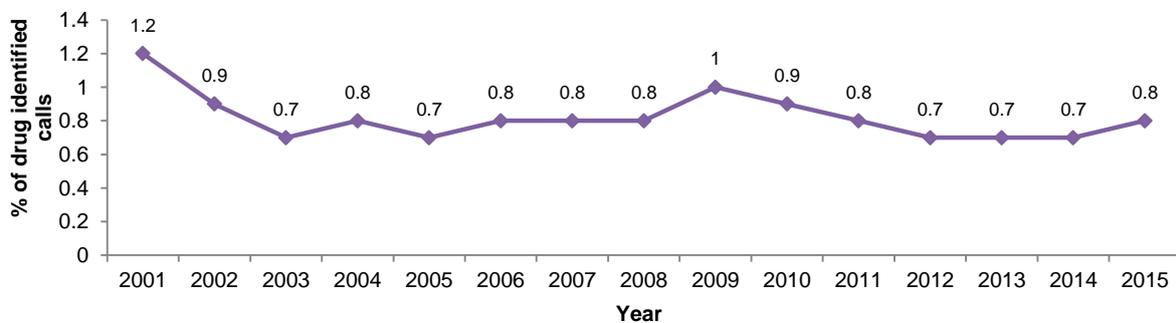


Source: DirectLine, Turning Point (unpublished data)

#### Cocaine

During 2015, DirectLine received 208 calls in which cocaine was identified as a drug of concern, which was 0.8% of all calls made to DirectLine during that time in which a drug of concern was cited (Turning Point, unpublished data). The percentage of drug-related calls where cocaine was identified has remained very low ( $\leq 1\%$ ) during recent years (Figure 45).

**Figure 44: Proportion of calls to DirectLine in which cocaine was identified as a drug of concern, Victoria, 2001–2015**

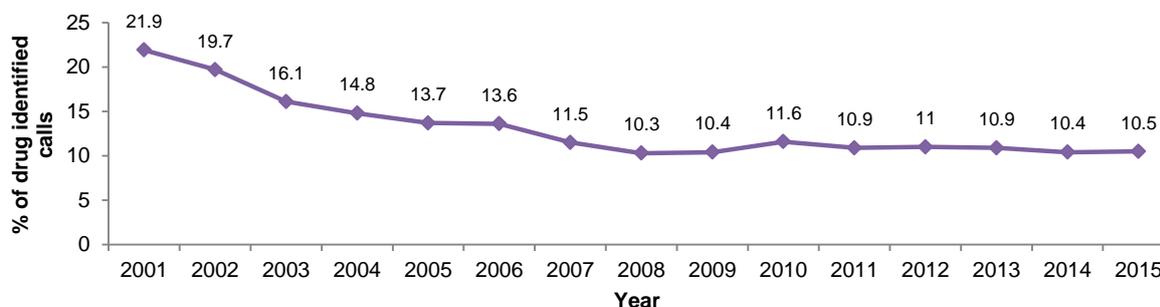


Source: DirectLine, Turning Point (unpublished data)

## Cannabis

During 2014, DirectLine received 2,741 calls in which cannabis was identified as a drug of concern – approximately 10.5% of all drug-identified calls to DirectLine during that year (Turning Point, unpublished data). The percentage of drug-related calls in which cannabis was identified as the drug of concern steadily declined from 2001 to 2008, and plateaued thereafter (Figure 46).

**Figure 45: Proportion of calls to DirectLine in which cannabis was identified as a drug of concern, 2001–2015**



Source: DirectLine, Turning Point (unpublished data)

### 6.3.3 Ambulance attendances at non-fatal drug related events

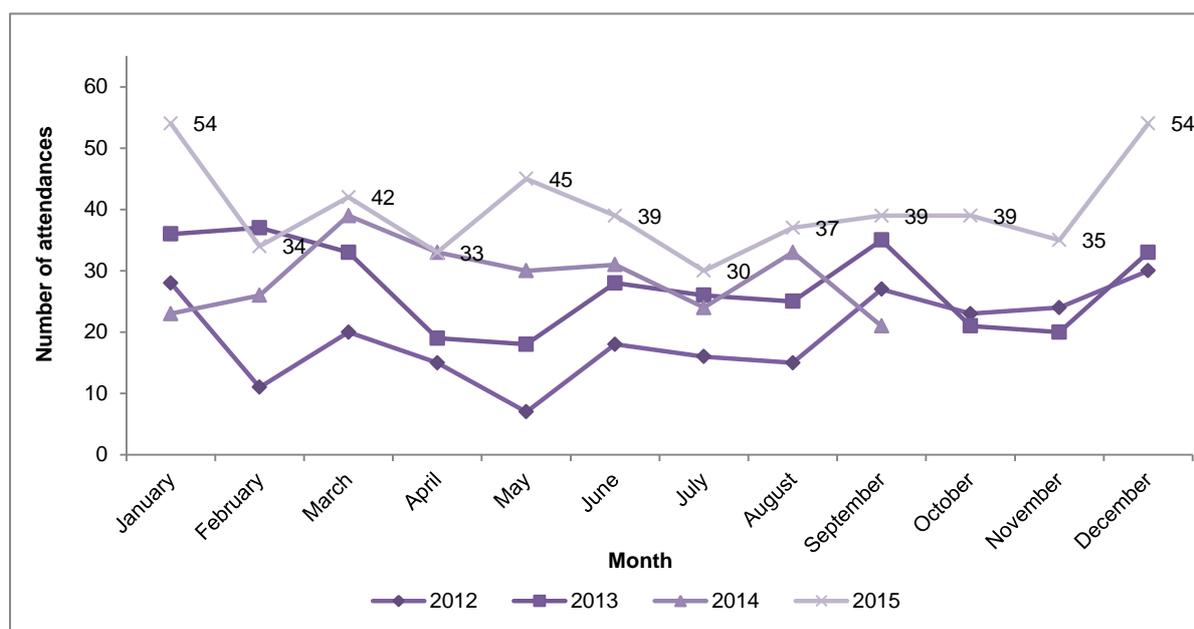
Turning Point Alcohol & Drug Centre manages an electronic drug-related ambulance attendance database containing information from Ambulance Victoria records (Dietze, Cvetkkovski, Rumbold, & Miller, 2000). Data for the period between January 2012 and December 2015 are presented in this report. The lower numbers of recorded attendances was affected by industrial action that occurred between October and December 2014, when no data was recorded.

#### Ecstasy

Ambulance attendances in metropolitan Melbourne at which ecstasy use was recorded ranged between seven and 54 per month during 2012–2015. The total number of attendances at which ecstasy was recorded declined by almost half between 2009 and 2010 (409 vs. 236) and continued to decline to 212 attendances in 2011 before slightly increasing to 234 in 2012. This number increased to 331 in 2013, declined to 260 in 2014 and increased substantially to 481 in 2015, the highest figure ever recorded in the Victorian EDRS (Figure 47)<sup>4</sup>. The median age of these patients who were attended to by an ambulance in metropolitan Victoria in 2015 was 21 years (range 14–58) (Turning Point, unpublished data). The average number of ambulance attendances recorded in regional Victoria relating to ecstasy use per month was 12.

<sup>4</sup> Data for October-December 2014 are missing due to industrial action.

**Figure 46: Number of ecstasy-related events attended by Ambulance Victoria, Melbourne, 2012–2015**



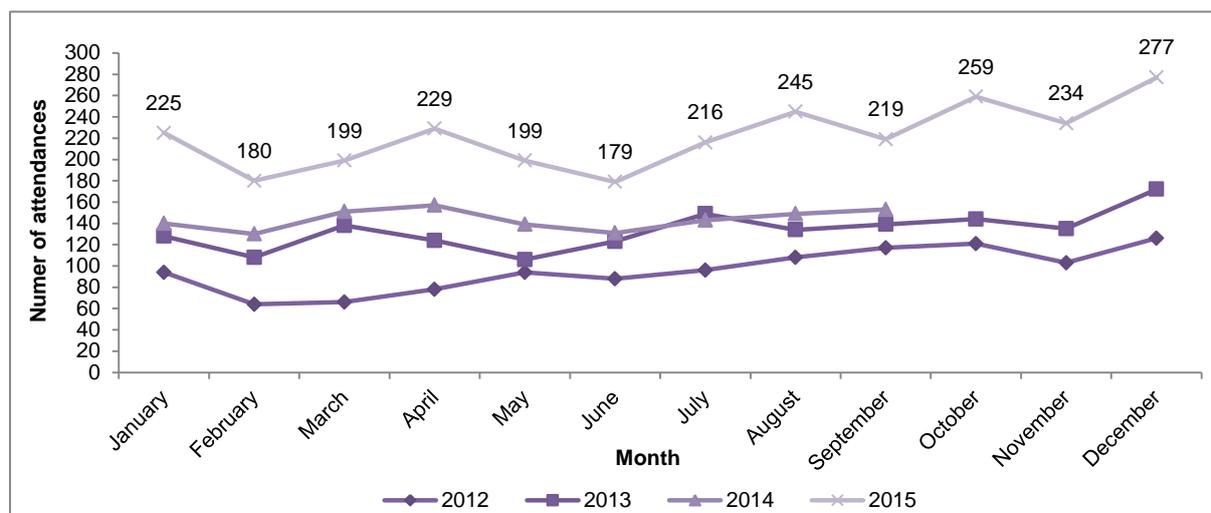
Source: Ambulance Victoria and Turning Point

### Amphetamines

Ambulance attendances at which crystal methamphetamine use was recorded in metropolitan Victoria was categorised separately from amphetamines for the first time in 2012. Ambulance attendances in which amphetamine use was recorded in metropolitan Melbourne ranged between 64 and 277 per month between January 2012 and December 2015 (Figure 48). Attendances in metropolitan Victoria where amphetamine use was recorded have increased since 2009 (425 attendances), with 533 attendances occurring in 2010, 768 attendances in 2011, 1,155 attendances in 2012, and 1,600 attendances in 2013, 1,293 attendances in 2014<sup>5</sup>. The number of attendances increased substantially in 2015 to 2,661 attendances in 2015. In regional Victoria, 631 attendances in 2015 involving amphetamines were recorded (vs. 311 in 2014<sup>4</sup>) and the median age of metropolitan and regional patients was 29 years (ranges 13-76 and 13-80 respectively) (Turning Point, unpublished data).

Crystal methamphetamine was recorded at 2,104 ambulance attendances in metropolitan Melbourne in 2015 (954 attendances in 2014<sup>4</sup>), and the median age of patients was 30 years (range 13–76). In regional Victoria, 511 attendances occurred at which crystal methamphetamine use was recorded; the median age of these patients was 28 (range 13–80) (235 attendances in 2014<sup>4</sup>) (Turning Point, unpublished data).

**Figure 47: Number of amphetamine-related events attended by Ambulance Victoria, Melbourne, 2012–2015**

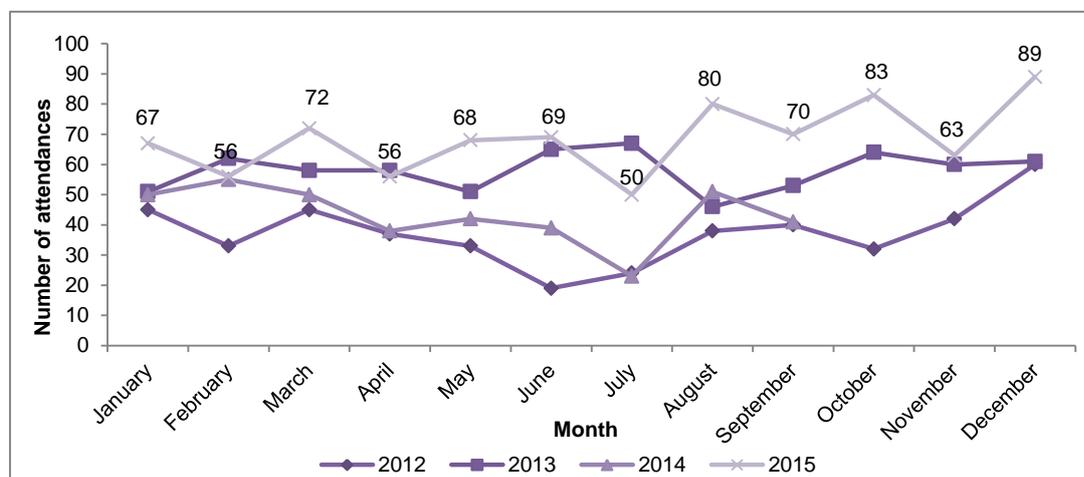


Source: Ambulance Victoria and Turning Point

### GHB

Ambulance attendances at which GHB use was recorded ranged between 19 and 89 per month between January 2012 and December 2015 (Figure 49). In 2015, the number of ambulance attendances in metropolitan Melbourne where GHB use was recorded decreased from 696 in 2013 to 389<sup>5</sup> in 2014 before increasing substantially to 823 in 2015 (Turning Point, unpublished data). The median age of patients requiring ambulance attendance was 23 years (range 14–58).

**Figure 48: Number of GHB-related events attended by Ambulance Victoria, Melbourne, 2012–2015**



Source: Ambulance Victoria and Turning Point

<sup>5</sup> Data for October-December 2014 are missing due to industrial action.

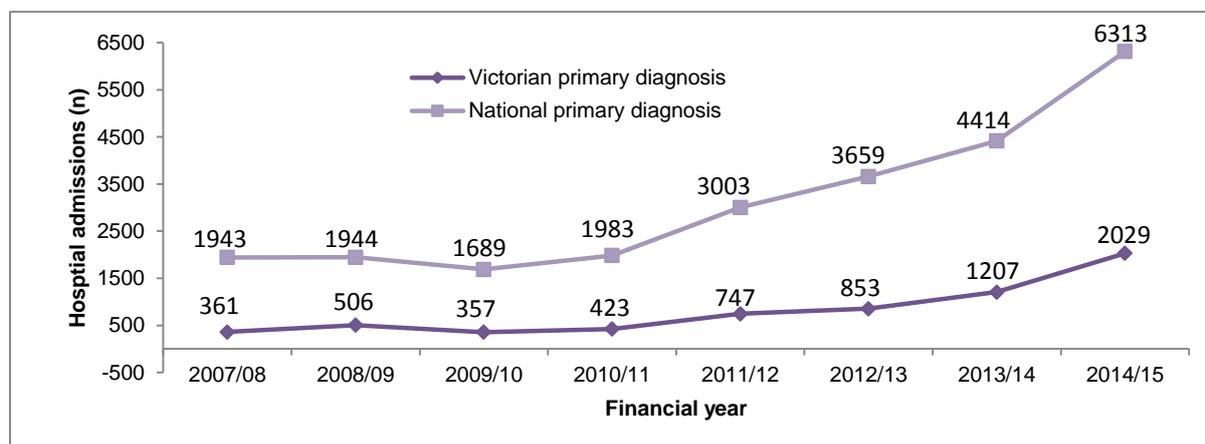
## 6.4 Hospital admissions

The National Hospital Morbidity Database (NHMD) is a collection of electronic records for hospital admissions in public and private hospitals compiled by the AIHW. Drug-related hospital admissions for amphetamine, cocaine and cannabis are reported below for Victoria and Australia, from 2007/08 to 2014/15, the most recent data available (Roxburgh & Breen, 2017). Following examination, the principal diagnosis refers to the established diagnosis that is primarily responsible for occasioning the patient's episode of care in hospital.

### 6.4.1 Amphetamines

Amphetamine-related hospital admissions from 2007/08 to 2014/15 in Victoria and Australia among persons aged 15 to 54 years are presented in Figure 50. The annual number of hospital admissions with an amphetamine-related primary diagnosis has been increasing since 2009/10. In 2014/15, these amphetamine-related hospital admissions increased by 68% in Victoria to 2029, continuing the increase from the previous year at over twice the rate. This figure comprises 31% of Australian hospital admissions related to the drug, a larger proportion when compared to the previous year (27%).

**Figure 49: Number of amphetamine-related hospital admissions, Victoria and Australia, 2007/2008 – 2014/15**

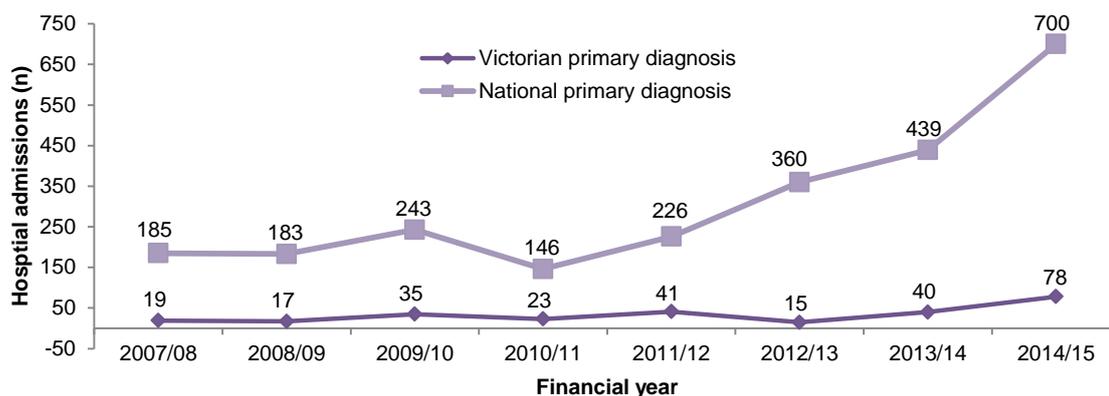


Source: Roxburgh & Breen, 2017

### 6.4.2 Cocaine

Figure 51 shows the number of cocaine-related hospital admissions among persons aged 15 to 54 years in Victoria and Australia, from 2007/08 to 2014/15. Nationally, the number of admissions with a primary diagnosis related to cocaine has been increasing since 2010/11. This pattern was not observed in Victoria, where these admissions declined to only 15 in 2012/13 but increased to 40 in 2013/14 and then further increased by 95% to 78 in 2014/15.

**Figure 50: Number of cocaine-related hospital admissions, Victoria and Australia, 2007/08 – 2014/15**

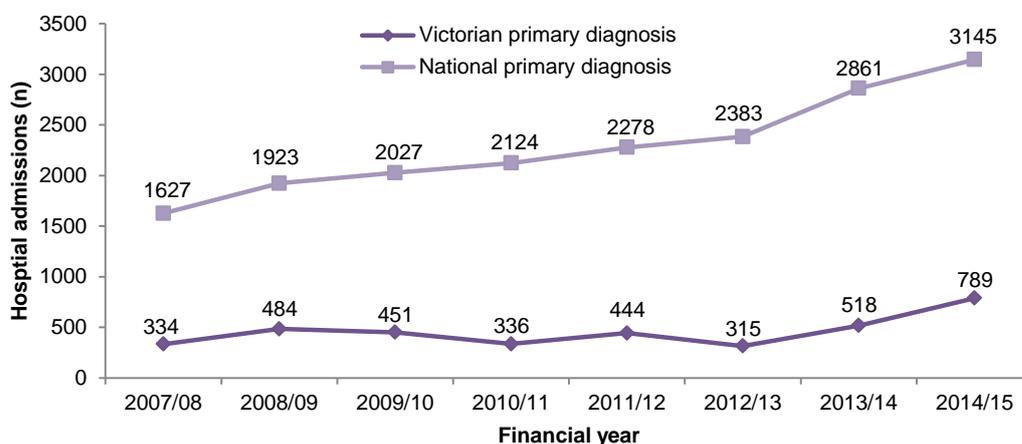


Source: Roxburgh & Breen, 2017

### 6.4.3 Cannabis

Cannabis-related hospital admissions among persons aged 15 to 54 years are shown in Figure 52 for Victoria and Australia, from 2007/08 to 2014/15. Nationally, the number of hospital admissions with a cannabis-related primary diagnosis has increased steadily over the period. The number in Victoria has been fluctuating around 400 since 2006/07. In Victoria in 2014/15, there were 789 hospital admissions with a cannabis-related primary diagnosis, an increase of 52% from the previous year, the highest figure ever recorded for Victoria. This figure comprises 25% of all cannabis-related admissions in Australia (vs. 18% in 2013-14).

**Figure 51: Number of cannabis-related hospital admissions, Victoria and Australia, 2007/08 – 2014/15**



Source: Roxburgh & Breen, 2017

## **6.5 Mental and physical health problems and psychological distress**

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

Since 2006, the EDRS study has included the 10-item Kessler Psychological Distress Scale (K10), a questionnaire designed to measure the level of distress that participants experienced in the preceding four weeks (Kessler et al., 2002). K10 scores ranging from 10 to 15 are classified as low or no distress, 16 to 21 as moderate distress, 22 to 29 as high distress, and 30 to 50 as very high distress.

The mean K10 score of the 2016 RPU sample was 19 (range 10–37). According to the above scoring classification, 24% of participants were in the low range, 42% in the moderate range, 27% in the high range (vs. 14% in 2015,  $p < 0.05$ ) and 6% (vs. 13% in 2014,  $p < 0.05$ ) in the very high range. Compared to the figure in the most recent NDSHS report (AIHW, 2014), for respondents who recently used illicit drugs (1 of 17 illicit drugs in the previous 12 months), a higher percentage of the 2016 RPU scored in the high to very high distress range (33% in EDRS vs. 17.5% in 2013 NDSHS). Participants were asked whether the specified feelings occurred more often, the same or less than in a 'usual' four weeks; 50% reported that they occurred about the same as usual, while 31% reported the feelings occurring more often than usual.

### **6.5.2 Self-reported mental health problems**

In 2016, 41 participants reported they had experienced a mental health problem in the preceding six months, most commonly anxiety (81%), followed by depression (56%), with 20% reporting experiencing both (43% in 2014). Sixty-eight per cent of participants who experienced a mental problem reported attending a health professional in relation to it. Forty-three per cent ( $n=12$ ) of participants who attended a health professional for their mental health problem were prescribed medication. The main medications prescribed were benzodiazepines ( $n=8$ ) and anti-depressants ( $n=5$ ).

## 7 RISK BEHAVIOUR

### Summary

- Similar proportions of participants interviewed in 2016 (12%) and 2015 (8%) reported ever injecting a drug, and 5% reported injection in the preceding six months.
- Sixty-four per cent of participants reported recent penetrative sex with a casual partner, and 77% of this group had done so under the influence of alcohol and/or other drugs.
- Forty-nine participants reported having sex under the influence of alcohol and/or other drugs in the preceding six months with a casual partner, most commonly under the influence of alcohol (78%), followed by ecstasy (41%).
- Similar proportions of participants in 2016 (72%) and 2015 (64%) reported ever having a sexual health check-up, and 18% had been diagnosed with a sexually transmitted infection at some point in their life.
- Fifty-eight per cent of the 2016 RPU sample scored either 8 or more on the AUDIT, which refers to alcohol levels at which alcohol intake may be considered hazardous. This was a decrease from 64% scoring either or more in 2015.
- Almost a third (28%) of the RPU who had driven in the last six months (n=72) reported driving within three hours after consuming any illicit drug(s).

## 7.1 Injecting risk behaviour

### 7.1.1 Lifetime injectors

Only 12% of participants reported ever injecting any drug in their lifetime – comparable to previous years (Table 21). Among those who reported ever injecting, the median age for injecting for the first time was 21 years (range 16–24 years). Most RPU who had ever injected reported the first drug they injected as speed (42%). RPU are only able to provide some information on trends on injecting drug use in Melbourne; the IDRS gives a more comprehensive picture. As outlined in section 1, the IDRS employs a similar methodology to the EDRS. The IDRS involves the collection of data from people who inject drugs on the prevalence and patterns of use and market characteristics of drugs of injection. Results from the 2016 Victorian IDRS will be available in early 2017 (Aitken, Lloyd & Dietze, 2017).

**Table 21: Injecting behaviour among EDRS participants, 2011–2016**

	2011 (n=101)	2012 (n=100)	2013 (n=100)	2014 (n=100)	2015 (n=100)	2016 (n=100)
Ever injected (%)	27	13	22	10	8	12

Source: EDRS participant interviews

### 7.1.2 Patterns of recent injecting drug use

Five respondents reported having injected in the preceding six months in 2016, a median of eight times (range 1–330 times) in the last six months. There was only one participant who reported sharing needles in the past six months. Small numbers of injectors preclude detailed interpretations of the figures in Table 22, which should be viewed with caution.

**Table 22: Recent injecting drug use patterns among RPU who reported injecting in the last six months, 2015–2016**

	% injected past 6 months*		Median days injected last 6 months (range)*		% last drug injected	
	2015 (n=7)	2016 (n=5)	2015 (n=7)	2016 (n=5)	2015 (n=7)	2016 (n=5)
Crystal	57	80	2 (1-48)	15.5 (1-69)	29	20
Speed	-	20	-	36 (36-36)	-	20
Base	-	-	-	-	-	-
Pharm stimulants**	-	-	-	-	-	-
Ecstasy (pills)	-	-	-	-	-	-
Ecstasy***	-	-	-	-	-	-
Ecstasy crystal	14	-	6 (6-6)	-	-	-
Heroin	57	80	30 (4-179)	30 (4-60)	43	40
Cocaine	-	-	-	-	-	-

Source: EDRS participant interviews

\* Could nominate multiple responses

\*\* Licit & illicit

\*\*\* Powder or capsule

^ Any ecstasy

## 7.2 Sexual risk behaviour and sexual health

### 7.2.1 Recent casual sexual activity

In 2016, participants were asked questions about their sexual risk behaviour, focusing on penetrative sex with casual sex partners (defined as the penetration by penis or hand of the vagina or anus).

Sixty-four per cent of respondents reported penetrative sex with a casual partner in the past six months. Of those who reported recent penetrative sex with a casual partner while sober (57%), 39% reported not using a condom the last time they had sex when sober (Table 24).

**Table 23: Prevalence of casual sexual activity and number of sexual partners in the preceding six months, 2011–2016**

	2011 (n=68)	2012 (n=69)	2013 (n=52)	2014 (n=57)	2015 (n=54)	2016 (n=64)
Number of casual partners						
One person (%)	18	23	21	12	17	39
Two people (%)	29	20	37	13	28	16
3-5 people (%)	35	36	31	21	39	30
6-10 people (%)	9	10	9	8	9	13
10+ people (%)	9	10	2	3	7	3
Sex with a casual partner when sober*	n=67	n=64	n=38	n=42	n=46	n=57
Used a protective barrier last time (when sober) %*	75	61	63	55	43	50

Source: EDRS participant interviews

\* Only included in surveys after 2010

### 7.2.2 Drug use during sex

Forty-nine participants reported having had sex with a casual partner while under the influence of alcohol and/or other drugs in the past six months and 45% had done this on six or more occasions (Table 25). Comparable to 2015, most respondents reporting having sex under the influence of alcohol (78%), followed by ecstasy (41%) and cannabis (29%). The proportion of RPU who reported not using a protective barrier while having sex with a casual partner under the influence of alcohol and/or other drugs remained similar to 2015, with 53% reporting that they did not use a condom on every occasion they had sex in the preceding six months, and 14% reporting never using a condom. Among this group, 72% reported not using a condom or other barrier with a casual partner on the last occasion they had sex while under the influence of alcohol and/or other drugs (55% in 2015). Common reasons for not using a condom on the last occasion were 'it wasn't mentioned' (33%) and 'using contraceptive pill' (28%).

**Table 24: Casual sex under the influence of drugs in the preceding six months among EDRS participants, 2014–2016**

	2014	2015	2016
<b>Penetrative sex with casual partner while on drugs last 6 months</b>	<b>n=52</b>	<b>n=50</b>	<b>n=49</b>
<b>Number of times*</b>			
Once (%)	13	12	14
Twice (%)	12	16	14
3-5 times (%)	25	26	27
6-10 times (%)	19	18	16
Ten or more times (%)	31	28	29
<b>Drugs used last time*</b>			
Ecstasy (%)	52	51	41
Cannabis (%)	21	33	29
Alcohol (%)	77	73	78
Speed (%)	10	10	4
Crystal meth (%)	8	8	10
Cocaine (%)	8	10	4
Ketamine (%)	2	10	20
LSD (%)	4	8	0
Used a protective barrier last time (%)*	47	45	28

Source: EDRS participant interviews

\* Of those who had penetrative sex with a casual partner under the influence of drugs in the last six months

### 7.2.3 Sexual health

Seventy-two per cent of the 2016 RPU sample reported ever having a sexual health check-up (swab, urine, or blood test), comparable to the proportion of the respondents interviewed in the 2015 EDRS. Among those who reported ever being tested, 48% were tested in the past year. A slightly larger proportion reported ever being diagnosed with a sexually transmitted infection (STI) in 2016 than in 2015 (18% vs. 12%), and four participants reported being diagnosed with an STI in the past year (Table 26).

**Table 25: Sexual health testing among RPU, 2013–2016**

	2014 n=100	2015 n=100	2016 n=100
<b>Ever had a sexual health check-up (%)</b>	n=98	n=100	n=100
No	29	36	28
Yes, in last year	50	42	48
Yes, > year ago	21	22	24
Don't know/didn't get result	-	-	-
<b>Ever diagnosed with an STI (%)</b>	n=98	n=100	n=100
Yes	20	12	18

Source: EDRS participant interviews

### 7.3 Risky alcohol use among RPU

The 2016 RPU sample was administered the World Health Organization's (WHO) Alcohol Use Disorders Identification Test (AUDIT) (Reinert & Allen, 2002). The AUDIT is a reliable and simple screening tool used as a measure of risky and high-risk (or hazardous and harmful) drinking. Its 10 core questions cover the domains of alcohol consumption, drinking behaviour and dependence, and the consequences or problems related to drinking. Questions were designed to assess three conceptual domains: alcohol intake or consumption, dependence, and adverse consequences (Reinert & Allen, 2002).

The consumption score derives from the first three questions of the AUDIT:

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

A score of six or seven indicates a risk of alcohol-related harm, particularly for those groups more susceptible to the effects of alcohol, such as young people, women, and people using other substances. Sixty-seven per cent of respondents scored six or more on these questions in 2016 (Table 27), similar to RPU interviewed for the 2015 EDRS (64%).

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

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

A score of four or more indicates the possibility of alcohol dependence. Thirteen per cent of participants had a score of four or more in 2016, as in 2015 (Table 27).

The alcohol-related problems score is derived from the final four questions of the AUDIT; any scoring on these items warrants further investigation to determine whether the alcohol-related problem is of current concern and requires intervention:

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

Eighty per cent of participants scored on the final four questions of the AUDIT, warranting investigation to determine whether the alcohol-related problem is of current concern and requires intervention, comparable to 77% of participants in 2015.

Total AUDIT scores of eight or more are regarded as indicators of hazardous and harmful alcohol use as well as possible alcohol dependence (Babor, Higgins-Biddle, Saunders, & Monteiro, 2001). Fifty-eight per cent of the 2016 RPU sample scored eight or more, indicating alcohol consumption levels considered hazardous (Table 27), a decrease from 2015 (64%).

**Table 26: AUDIT scores and proportion of RPU scoring above recommended levels indicative of hazardous alcohol use, 2016**

	Median score (range)	% scoring above recommended level
Consumption score	6 (0-11)	67
Dependence score	1 (0-8)	13
Adverse consequences score	3 (0-14)	80
Total AUDIT score	10 (1-30)	64

Source: EDRS participant interviews

## 7.4 Ecstasy and methamphetamine dependence

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

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

In 2016, the participants in the EDRS were asked questions from the Severity of Dependence Scale (SDS) to investigate ecstasy dependence. The same questions were repeated to investigate methamphetamine dependence for the first time in 2016.

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

For RPU who had used ecstasy in the preceding six months, the median SDS score was one (range 0–9). Seventeen per cent scored four or above, suggesting ecstasy dependence, a larger proportion than in 2015 (9%). The majority of participants (68%) reported never or almost never thinking that their use of ecstasy was out of control, and 83% reported never or almost never wishing they could stop using ecstasy. Over a third (35%) of the sample reported worrying about their use of ecstasy ‘sometimes’, ‘often’ or ‘always or nearly always’, a slightly smaller proportion than in 2015 (38%). Of those RPU who scored four or above, 48% were female, a slight increase from 2015 (41%). More than half of the sample (52%) scored zero for all questions in the SDS.

Among RPU who had used methamphetamine (speed, base or crystal) in the preceding six months, the median SDS score was also one (range 0–9). Twelve per cent scored four or above, suggesting methamphetamine dependence. Most responding RPU (84%) reported never or almost never thinking that their use of methamphetamine was out of control, and 82% reported never or almost never wishing they could stop using methamphetamine, similar to the proportions reported in the Ecstasy SDS. Less than one quarter (18%) reported worrying about their use of methamphetamine ‘sometimes’, ‘often’ or ‘always or nearly always’. Almost half of the sample (48%) scored zero for all questions in the SDS.

## 7.5 Driving risk behaviour

Seventy-two per cent of the 2016 RPU sample reported having driven a car/motorcycle/vehicle in the six months prior to being interviewed, a rate similar to previous years. Of those reporting having driven during this time, 28% (n=20) believed that they had driven while over the legal limit for alcohol in the preceding six months – a significantly smaller proportion than in 2015 (44%, p<0.05). The same percentage was also recorded for RPU who reported driving within three hours after taking drugs (Table 28). The 2016 did not include questions exploring the types of drugs consumed before driving.

**Table 27: Patterns of driving under the influence of alcohol and/or other drugs in the last six months among RPU, 2009–2016**

	2009	2010	2011	2012	2013	2015	2016
<b>Driven while over the legal limit of alcohol - last 6 months (%)*</b>	37	42	68	42	23	44	28
<b>Driven soon after taking a drug - last 6 months (%)*</b>	60	61	67	55	54	53	28***
<b>Illicit drugs taken before driving - last six months (%)**</b>							
Ecstasy	60	42	30	33	34	37	-
Cannabis	63	61	59	58	43	69	-
Speed	43	26	33	20	20	9	-
Cocaine	8	8	7	10	6	14	-
Crystal methamphetamine	3	3	17	48	46	14	-
GHB	3	0	7	8	6	0	-

Source: EDRS participant interviews

\* Of those who had driven a car in the last six months

\*\* Participants could nominate multiple responses

\*\*\* 2016 specified driving within '3 hours'.

## 8 LAW ENFORCEMENT-RELATED TRENDS ASSOCIATED WITH USE OF ECSTASY & RELATED DRUGS

### Summary

- A significantly smaller proportion of RPU reported engaging in any crime in the month preceding their interview in 2016 when compared to 2015.
- The most common criminal activity reported by the 2016 EDRS sample was property crime (19%).
- In the 2014/2015 financial year, approximately 27% of the arrests made in Australia for amphetamine-type stimulant offences occurred in Victoria, comparable to 2013/2014 (29%).
- In the 2014/2015 financial year, approximately 17% of the arrests made in Australia for hallucinogen offences occurred in Victoria, consistent with the figure reported in 2013/2014.

## 8.1 Reports of criminal activity among EDRS participants

Five participants in the 2015 RPU sample reported that they had been arrested in the past 12 months (Table 29). There was a significant decrease in the proportion of RPU who reported engaging in any crime in the past month in 2016 (26% vs. 45% in 2015,  $p < 0.01$ ). As in all previous years, the two most common types of crimes EDRS participants reported committing during the last month were property crime and drug dealing (19% and 14% respectively) (Table 29).

**Table 28: Criminal activity reported by EDRS participants, 2011–2016**

Types of criminal activity	2011 (n=101)	2012 (n=100)	2013 (n=100)	2014 (n=100)	2015 (n=100)	2016 (n=100)
Any crime (%)	50	49	26	47	45	26
Drug dealing (%)	33	35	18	28	27	14
Property crime (%)	25	25	12	25	27	19
Fraud (%)	5	3	<2	1	5	3
Violent crime (%)	3	12	<0	3	1	1
Arrested in the preceding 12 months (%)	16	17	11	10	7	5

Source: EDRS participant interviews

## 8.2 Arrests

The Australian Criminal Intelligence Commission (ACIC) records the number of arrests for consumer offences (e.g., drug possession and/or use) and provider offences (e.g., drug trafficking and/or manufacturing) annually in Australia. This section outlines those statistics for the 2014/2015 financial year in Victoria and Australia for amphetamine-type stimulants, cocaine, cannabis and hallucinogens.

### 8.2.1 Amphetamine-type stimulants

Table 30 details consumer and provider arrests for amphetamine-type stimulants during 2014/2015 in Victoria and Australia. Amphetamines, methylamphetamine, MDMA and phenethylamines are included in the 'amphetamine-type stimulant' category. During 2014/2015, approximately 27% of the arrests made in Australia for amphetamine-type stimulant offences occurred in Victoria, comparable to the figure recorded in 2013/2014 (29%) (Australian Crime Intelligence Commission, 2016).<sup>6</sup> The total number of consumer and provider arrests for amphetamine-type stimulants in Victoria increased during the 2014/2015 financial year from 2013/2014 (9,734 vs. 7,555).

**Table 29: Amphetamine-type stimulants: Consumer and provider arrests – Victoria and Australia, 2014/2015**

	Victoria (n)	Australia (n)	% of national arrests
Consumer	7,298	27,502	27%
Provider	2,436	7,862	31%
<b>TOTAL*</b>	9,734	35,468	27%

Source: ACIC

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

### 8.2.2 Cocaine

Table 31 details the comparatively small number of consumer and provider arrests for cocaine during 2014/2015 in Victoria and Australia. During that period, approximately 13% of the arrests made in

<sup>6</sup> Proportions (%) should be interpreted with caution due to the lack of uniformity across states and territories in the recording and storing of data on illicit drug arrests.

Australia for cocaine offences occurred in Victoria, a slightly smaller proportion than in the previous financial year (16%) (Australian Criminal Intelligence Commission, 2016). In Victoria, the total number of consumer and provider arrests in 2014/2015 was higher than the number recorded in 2013/2014 (375 and 240 respectively).

**Table 30: Cocaine: Consumer and provider arrests – Victoria and Australia, 2014/2015**

	Victoria (n)	Australia (n)	% of national arrests
<b>Consumer</b>	256	1542	17%
<b>Provider</b>	119	544	22%
<b>TOTAL*</b>	375	2092	18%

Source: ACIC

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

### 8.2.3 Cannabis

Table 32 details consumer and provider arrests for cannabis during 2014/2015 in Victoria and Australia. During that period, approximately 14% of the arrests made in Australia for cannabis offences occurred in Victoria, similar to the previous financial year (13%) (Australian Criminal Intelligence Commission, 2016). In Victoria, the total number of consumer and provider arrests continued to increase in 2014/2015 over 2013/2014 (10,292 vs. 8,588).

**Table 31: Cannabis: Consumer and provider arrests – Victoria and Australia, 2014/2015**

	Victoria (n)	Australia (n)	% of national arrests
<b>Consumer</b>	8,511	66,309	13%
<b>Provider</b>	1,781	8,716	20%
<b>TOTAL*</b>	10,292	75,105	14%

Source: ACIC

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

### 8.2.4 Hallucinogens

Table 33 details the small number of consumer and provider arrests for hallucinogens (LSD or psilocybin mushrooms) during 2014/2015 in Victoria and Australia. During that time period, approximately 17% of the arrests made in Australia for hallucinogen offences occurred in Victoria, consistent with the figure reported in the 2013/2014 financial year (Australian Criminal Intelligence Commission, 2016). The total number of consumer and provider arrests for hallucinogen offences in Victoria continued to increase to 125 arrests in 2014/2015 from 118 arrests reported in the 2013/2014 financial year.

**Table 32: Hallucinogens: Consumer and provider arrests – Victoria and Australia, 2014/2015**

	Victoria (n)	Australia (n)	% of national arrests
<b>Consumer</b>	104	566	18%
<b>Provider</b>	50	164	31%
<b>TOTAL*</b>	125	734	17%

Source: ACIC

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

## 9 SPECIAL TOPICS OF INTEREST

### Summary

- Forty-five per cent of the Victorian RPU sample reported using an NPS in the last 12 months, most commonly DMT and 2C-x.
- Of the RPU who commented (n=27), 44% reported that they had provided any NPS to others; mainly to friends for free or to share.
- Sixteen per cent of the RPU sample reported that they had ever purchased an illicit drug online.
- Thirteen per cent reported purchasing an illicit drug online in the previous year with most being from Australian retailers in dark net marketplaces.
- The most commonly reported drugs purchased online were ecstasy, LSD, benzodiazepines, DMT and substances from the 2C-X family.
- Forty per cent of the RPU sample reported playing video games in the last six months on a median of 48 days.
- Fifteen per cent of those who had played video games in the last six months believed they had an issue with video gaming.
- Twenty-six per cent of the RPU sample reported gambling in the last six months on a median of four days.
- Twelve per cent of those who had gambled in the last six months believed they had an issue with gambling.

## 9.1 Online purchasing and NPS use

Over the past decade, the number and range of substances collectively referred to as new psychoactive substances (NPS) has increased dramatically. In 2015, the European Union were monitoring over 560 NPS, of which 70% were detected in the past five years (EMCDDA, 2016b). The rapid growth of the NPS market has been facilitated by several factors, one of which is the expansion of online marketplaces (EMCDDA, 2016a, 2016c). The expansion of these online drug markets has provided new opportunities for the supply and purchase of drugs, with internet sales of NPS now an international phenomenon and with many shops advertising worldwide delivery (EMCDDA, 2011). However, despite being readily available online, and despite the widely held perception that most NPS are purchased online, it appears that most consumers do not source NPS in this manner. That is, despite findings that NPS users are more likely to purchase drugs online than other drug users (Burns et al., 2014; Van Buskirk, Roxburgh, et al., 2016), for the most part they appear to obtain these substances from 'in-person' sources such as friends and dealers (e.g. Burns et al., 2014; European Commission, 2014; Stephenson & Richardson, 2014). However, despite potential heterogeneity in the forms of NPS used, many of these studies combine NPS consumers into a single category and it is unclear whether differences exist across NPS consumers.

In addition to the direct purchasing of NPS for personal use, it is likely that the internet plays a role in practices of 'social supply' (i.e. the non-commercial or non-profit-making distribution of drugs to non-strangers; Hough et al., 2003, p. 36) and dealing for cash profit. There are some anecdotal reports of this taking place, but the overall extent to which this is happening remains unknown.

In order to address these issues, additional questions were included in the 2016 Victorian EDRS survey about the supply and purchasing patterns of past year NPS consumers. As outlined in Table 34, 45% of the Victorian RPU sample reported using an NPS in the last 12 months, most commonly DMT and 2C-x. The majority of those who had used an NPS in the last 12 months nominated a friend as their main source. Smaller numbers nominated a dealer or 'unknown dealer' as their main NPS source.

Participants were asked in the last 12 months if they provided any NPS to others. Of those who commented (n=27), 44% reported that they had provided any NPS to others; mainly to friends for free or to share (Table 34).

For more detailed results (including differences in purchasing and supply patterns across NPS consumers), please refer to (Sutherland et al., in press):

**Table 33: Purchasing and supply patterns among past year NPS consumers, 2016**

n=100	
<b>% used NPS last 12 months</b>	45
<b>% Main NPS used last 12 months</b>	(n=45)
DMT	49
2C-x	16
NBOMe	2
Synthetic cannabinoids	4
Methoxetamine	11
DXM	7
Methylone	0
PMA	0
Mephedrone	0
Salvia Divinorum	2
Mescaline	2
5-MeO-DMT	0
Other	14
<b>% How obtained substance<sup>#</sup></b>	(n=45)
Bought it	64
Given for free	47
Exchanged for something other than cash	9
<b>% Main source</b>	(n=45)
Friend	49
Acquaintance	4
Known dealer	11
Unknown dealer	13
Online dark net	7
Online surface web	0
Other	13
<b>% Supplied NPS to others</b>	60
<b>% Who supplied NPS to<sup>**</sup></b>	(n=27)
Friends	100
Relatives	4
Acquaintances	7
Strangers	0
<b>% Method of supply<sup>**</sup></b>	(n=27)
Gave away for free	44
Shared	67
Provided at cost price	19
Provided for cash profit	4
Exchanged	11

Source: Victorian EDRS participant interviews

\* Multiple responses allowed, hence sum of percentages may exceed 100%

# Among those who had supplied NPS to others in the past year

## 9.2 Online purchasing

In 2016, the EDRS continued to investigate and monitor the practice of purchasing drugs online among recreational drug users in Australia. Of particular interest was the use of 'dark web' marketplaces that are only accessible using a specially routed anonymous connection, making it possible for people around the world to get illicit drugs like MDMA and cocaine delivered to their door (Burns and Van Buskirk, 2013). There is particular focus, given the changes in legislation and negative effects of particular NPS (such as NBOMe and synthetic cannabis), on the purchase of NPS online. The EDRS collected data to obtain: (1) prevalence of online drug purchasing; (2) motivations for using the internet to purchase substances; (3) patterns of online drug purchasing; and (4) familiarity with the internet as an avenue for purchasing of illicit substances.

In 2016, 16% of the Victorian EDRS participants reported that they had ever purchased an illicit drug online, with 13% having done so in the previous year (vs. 19% lifetime and 10% in the past year in 2015). More than half (54%) of responding RPU reported purchasing illicit drugs 'more than 5 times' in the 12 months preceding their interview (Table 35).

**Table 34: Number of times recently purchased illicit drugs online, 2016**

How many online purchases of illicit drugs in the past 12 months?	% (n=100)
Once	31%
Twice	0%
3-5 times	15%
More than 5 times	54%

Source: EDRS participant interviews

Participants were asked what proportion of their drugs they purchased online. A large minority (38%) reported that less than 25% of their drugs were purchased online, with one participant reporting that all of their drugs were purchased online. Results are summarised in Table 36.

**Table 35: What proportion of drugs were purchased online, 2016**

What proportion of all purchased drugs was purchased online?	% (n=100)
Less than 25%	38%
Between 25% and 49%	8%
Between 50% and 74%	31%
Between 75% and 99%	15%
All (100%)	8%

Source: EDRS participant interviews

Of those purchasing from the internet, 31% (n=4) reported that they were purchasing for the purposes of supplying to friends, 8% (n=1) for the purposes of selling for a profit, 23% (n=5) for both supply to friends and for profit.

Purchases of illicit drugs were primarily made from either international webstores (on the 'surface web'; 23%, n=3) or dark net marketplaces similar to the now-closed Silk Road (85%, n=11). If participants had purchased from a dark net marketplace, they were asked to specify whether the retailer they purchased from was Australian (64%, n=7), international (18%, n=2) or both (18%, n=2).

Illicit substances recently purchased online were specified (see Table 37). Thirteen participants reported buying a traditional illicit substance online, of which most reported this was ecstasy (any form) (69%) followed by LSD (54%) and benzodiazepines (31%). Six participants reported purchasing an NPS online, including DMT (67%) and a substance from the 2C-X family (50%).

**Table 36: Illicit substances reportedly purchased online recently, 2016**

Online substance purchased	%
<b>Traditional illicit substances</b>	<b>% (n=100)</b>
Ecstasy (any form)	69%
LSD	54%
Cannabis	23%
Benzodiazepines	31%
Ketamine	15%
Methamphetamine (any form)	23%
Mushrooms	8%
Cocaine	8%
<b>NPS illicit substances</b>	<b>% (n=6)</b>
2C-X family	50%
DMT	67%
NBOMe	0%
Mephedrone	17%
MXE	17%
Methylone	17%
5-MeO-DMT	0%

Source: EDRS participant interviews

Note: ^ = small numbers interpret with caution

All EDRS participants were asked about their level of knowledge of, and familiarity with, the 'dark net' and illicit online marketplaces, such as the now-closed Silk Road. Results are outlined in Table 38.

**Table 37: Familiarity with the 'dark net', 2016**

What is your level of knowledge of the dark net?	% (n=100)
Never heard of the 'dark net'	15%
Only heard of the 'dark net' online but never accessed it	43%
Researched the dark net but never accessed it	11%
Obtained drugs through a friend who purchased them from dark	1%
Accessed dark net marketplaces but never purchased from them <sup>17</sup>	17%
Purchased drugs from 'dark net' market places	13%

Source: EDRS participant interviews

### 9.3 Video gaming and gambling

Gambling disorder and internet gaming disorder are two of the most widely researched behavioural addictions (Grant et al., 2010) with the former recognised as a mental health disorder in the DSM-V (American Psychiatric Association, 2013). Previous research has indicated a co-occurrence of each of these two behavioural addictions with substance use disorders (Sim et al., 2012, Petry et al., 2005).

In the 2016 Victorian EDRS survey, additional questions were added to examine the proportions of co-occurring behavioural addictions and substance use disorders among a cohort of regular psychostimulant users. The questions assessed the amount of video gaming/gambling in the last six months, and single-item measures of problematic video gaming/gambling use derived from Thomas et al. (2008) for gambling were included. Widyanto et al. (2010) demonstrated a high correlation between a single-item measure for internet addiction and a multiple item questionnaire.

Among the Victorian RPU sample, 40% reported playing video games in the last six months on a median of 48 days (around twice a week; range 2–180 days). The median amount of time spent playing video games on a typical day was 120 minutes (ranged from 30 mins to 8 hours). Around one third (30%) of those who had used video games in the last months had done so for one hour or less on a typical day of use. Fifteen per cent of those who had played video games in the last six months believed they had an issue with video gaming (Table 40).

Participants were also asked questions about gambling. Of the Victorian 2016 EDRS sample, around one quarter (26%) had gambled on a median of four days in the last six months (range 1–180 days). Twelve per cent of those who reported gambling in the last six months believed they had an issue with gambling (Table 40).

**Table 38: Video gaming and gambling in the last six months among REU, 2016**

	VIC
<b>Video games:</b>	(n=100)
% Played video games in the last six months	40
<b>Last six months:</b>	(n=40)
Median days played video games (range)	48 (2-180)
Median number of minutes spent playing video games on a typical day (range)	120 (30-480)
<b>Amount of time spent video games on a typical day:</b>	
% 1 hour or less	30
% More than 1 hour but less than 3 hours	55
% 3 hours or more	15
% Ever had an issue with video gaming	15
<b>Gambling:</b>	(n=100)
% Gambled last six months	26
<b>Last six months:</b>	(n=26)
Median days gambled (range)	4 (1-180)
% Ever had an issue with gambling	12

Source: Victorian EDRS participant interviews

## APPENDIX A

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

Street name	Chemical name	Information on Drug
<b>Phenethylamines</b>		
<i>(2C-x Class)</i>		
2C-B	2,5-dimethoxy-4-bromophenethyl-amine	A psychedelic drug with stimulant effects
2C-I	2,5-dimethoxy-4-iodophenethyl-amine	A psychedelic drug with stimulant effects
2C-E	2,5-dimethoxy-4-ethylphenethyl-amine	A psychedelic drug with stimulant effects
2C Other		A psychedelic drug with stimulant effects
<b>Phenethylamines (Beta-ketones)</b>		
Mephedrone	4-methyl-methcathin-one	A stimulant which is closely chemically related to amphetamines
Methylone	3,4-methylenedioxy-N-methylcathinone	An entactogen and stimulant of the phenethylamine, amphetamine, and cathinone classes
Ivory Wave/MDPV	Methylenedioxypropylone (3,4-methylenedioxy)	A cathinone derivative
<b>Phenethylamines (Amphetamine-based)</b>		
Benzo Fury (6-APB)	6-(2-minopropyl)benzofuran	A synthetic chemical with stimulant effects
Mescaline	3,4,5-trimethoxyphenethylamine	A hallucinogenic alkaloid
MDAI	5,6-methylenedioxy-2-aminoindane	An empathogen. Its effects are sometimes compared to MDMA (ecstasy)
<b>(Ergolines)</b>		
LSA (Hawaiian Baby Woodrose)	d-lysergic acid amide	LSA is a naturally occurring psychedelic found in many plants such as morning glory
<b>Tryptamines</b>		
5MEO-DMT	5-methoxy-dimethyltryptamine	A naturally occurring psychedelic tryptamine present in numerous plants and in the venom of the Bufo alvarius toad
DMT	Dimethyl tryptamine	A hallucinogenic drug in the tryptamine family
<b>(Dissociative)</b>		
DXM (Cough syrup)	Dextromethorphan	A semisynthetic opiate derivative which is legally available over the counter in the United States
Methoxetamine (MXE)	2-(3-methoxyphenyl)-2-(ethylamino)cyclohexanone	A sedative and a near chemical analog of ketamine
Salvia	Salvia divinorum	Salvia is derived from the American plant Salvia divinorum, a member of the mint family

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**Piperazines**

BZP

1-benzylpiperazine

A piperazine; a central nervous system stimulant

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**Other**

Synthetic cannabis (K2/Spice) Synthetic cannabinoids

Usually sold as loose, generic plant material with a mix of chemicals on it (containing synthetic cannabinoids)

Other herbal highs

Naturally occurring substances used for a high

Capsules (contents unknown)

Capsules consumed by REU opportunistically without being aware of what the contents were

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