

**Michael Curtis and Paul Dietze**

**VICTORIAN DRUG TRENDS IN ECSTASY AND RELATED  
DRUG MARKETS 2017  
Findings from the  
Ecstasy and related Drugs Reporting System  
(EDRS)**

**Australian Drug Trends Series No. 193**



# **VICTORIAN TRENDS IN ECSTASY AND RELATED DRUG MARKETS 2017**



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**Michael Curtis and Paul Dietze  
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**Australian Drug Trends Series No. 193**

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## ABBREVIATIONS

2C-x	General name for all variants of 2C psychedelic substances, including 2C-B, 2C-I, 2C-E and 2C-Other
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)

## 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 either purchased from a street dealer or obtained from a friend or partner.
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) and external indicator data. The 2017 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 21 years (compared to 24 in 2016). Other demographic characteristics were consistent with those measured in 2016; RPU interviewed in 2017 were typically heterosexual, well educated, from an English-speaking background, and few reported being in drug treatment. Unlike in 2016, there were more males (57%) recruited than females (43%).

### Patterns of drug use among RPU

In addition to ecstasy, most RPU in 2017 reported having recently used alcohol, tobacco, cannabis, and ketamine, unchanged from 2016. The prevalence of reported lifetime use of ecstasy crystal (52% vs. 73%,  $p < 0.05$ ), methamphetamine powder (70% vs. 85%,  $p < 0.05$ ) and crystal methamphetamine (18% vs. 30%,  $p < 0.05$ ) were all significantly lower in 2017 than 2016. The prevalence of reported recent use of ecstasy crystal (43% vs. 59%,  $p < 0.05$ ) was also significantly lower. There were no significant increases in lifetime or recent use of any substance in 2017.

### Ecstasy

Similar to previous years, the 2017 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. There was a significant decrease in the number of people who reported using other drugs in conjunction with ecstasy on their last occasion of use (48% vs 95% in 2016,  $p < 0.05$ ). In 2017, 40% of participants reported ecstasy as their main drug of choice ('favourite or preferred' drug) consistent with the figure from 2016 (44%). Ecstasy pills remained the most commonly used form of the drug for lifetime use (96%), but ecstasy capsules were the form most commonly used recently (90%). The median price of one ecstasy pill was \$20, the lowest ever recorded in the Victorian EDRS. There was a lower proportion of reports of 'high' ecstasy purity in 2017 than in 2016 (22% vs. 42%) with most participants reporting that purity was 'stable' (39%). Very little has changed with regard to how easy it is to obtain – 58% of RPU reported that ecstasy was 'very easy' to obtain (59% in 2016) and 33% reported it to be 'easy' to obtain (37% in 2016). Most respondents also noted that the current availability of ecstasy remained 'stable' (69% vs. 72% in 2016). Most RPU interviewed in 2017 reported obtaining ecstasy from friends (65%) who were at a nightclub (30%) and spent the most time under the influence of the drug at the nightclub (58%) on their last occasion of use.

Victoria Police Forensic Services Department's analyses of ecstasy seizures show that the average purity remained stable between the 2015/16 and 2016/17 financial years (32% vs. 33% respectively).

### Methamphetamine

RPU were asked about different forms of methamphetamine: speed, crystal methamphetamine and methamphetamine base. The small number of respondents for base precluded further analysis.

RPU reported using a median of 0.15 grams of speed in a typical 'session' of use, slightly lower than in 2016. Further, participants reported using speed on a median of three days in the last six months, the same median number of days as in 2016. The price of speed decreased; RPU reported typically paying \$175 per gram of speed in 2017, a \$25 decrease from the previous five years. Most participants perceived the purity of speed to be medium (46%). There was a significant increase in the number of respondents reporting that it was difficult to obtain speed (62% vs. 14% in 2016,  $p < 0.05$ ), and that this had remained 'stable' (67%) in the six months preceding their interview. Participants reported that on the last occasion of use they most commonly obtained speed from friends (67%) who were at a nightclub (33%), and then spent the most time under the influence of the drug at the nightclub (58%).

In 2017, participants reported using a median of one and a half points of crystal methamphetamine in a typical session, the same amount typically used in 2016. The median reported days of use of crystal

methamphetamine in the preceding six months decreased from 15 days in 2016 to 2.5 days in 2017. The most commonly reported route of administration for crystal methamphetamine among RPU was smoking (90%). The median reported price per point of crystal methamphetamine was \$50, an increase from 2016 (\$40). In 2017, participants generally reported crystal methamphetamine purity as high (50%) whilst providing varied responses regarding availability, with 40% stating it was 'very easy' or 'difficult' 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 (60%), at their friend's home (40%) and used it at their own home (60%).

In the 2017 Victorian EDRS, no-one reported recent use of methamphetamine base. Therefore no-one was able to respond to questions about price, purity and availability.

Victoria Police Forensic Services Department's analyses of methamphetamine seizures show that the average purity decreased from 75.5% in 2015/16 to 70% in the 2016/17 financial year.

## **Cocaine**

In 2017, participants reported using a median of 0.5 gram of cocaine in a typical 'session' of use, an increase on the median figure reported in 2016 (0.2 gram). RPU reported using cocaine on a median of three days in 2017 and all recent users reported snorting it (100%). The median reported price of a gram of cocaine in 2017 was \$350, the highest since 2012. Of the recent cocaine users who were able to comment, a large minority perceived its current purity to be low (43%). Most RPU who were able to comment reported that cocaine was either 'difficult' (46%) or 'very difficult' (21%) to obtain. As in previous years, most RPU reported obtaining cocaine from friends (76%) who were at a 'nightclub' or 'private party' (24% each) and spent the most time under the influence of the drug at the 'nightclub' (41%) on their last occasion of use.

Victoria Police Forensic Services Department's analyses of cocaine seizures during the 2016/17 financial year show that the average purity was 51%, slightly higher than in 2015/16 (48%).

## **Ketamine**

In 2017, the percentage of RPU reporting lifetime use of ketamine was similar to that in 2016 (83% vs. 84% respectively) while a non-significantly higher percentage reported recent use (80% vs. 72% in 2016). RPU used ketamine on a median of five days in the preceding six months, the same as in 2016. Participants reported using a median of two bumps of ketamine during a typical 'session' of use. The median price per gram of ketamine increased slightly to \$200 per gram, the same amount reported in 2012–2015. Of the participants who were able to comment, the majority perceived current ketamine purity to be high (50%) and stable (64%). Ketamine remained easy to obtain in 2017, with 87% reporting that it was either 'easy' or 'very easy' to obtain (81% in 2016). A similar proportion reported that the availability for ketamine was 'stable' in 2017 (67% vs. 71% in 2016). The majority of responding RPU reported obtaining ketamine from friends (58%) who were at a nightclub (32%) and spent the most time under the influence of the drug at the nightclub (55%) on their last occasion.

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

The proportion of participants reporting recent use of GHB in 2017 (15%) was similar to 2016 (14%). RPU reported recent GHB use on a median of five days in the preceding six months. The median quantity used in a typical 'session' decreased slightly from 4ml in 2016 to 3ml in 2017. No participants of the 2017 Victorian EDRS sample were able to respond to questions about the price of GHB, while only four participants were able to answer questions regarding the purity and availability of GHB.

## **LSD**

Similar proportions of RPU reported lifetime LSD use in 2017 and 2016 (72% vs. 70% respectively). Recent users of LSD reported irregular use of the drug on a median of three days in the preceding six months in 2017 and typically used one tab, comparable to the median figure reported in previous years. The median reported price per tab was \$15 in 2017, which was cheaper than in 2016 (\$20) but consistent with 2012–2015. There was a non-significant increase in the number of recent LSD users reporting the purity of LSD as high (74% vs 57% in 2016). RPU reported that the price of LSD had remained stable over the preceding six months (64%). Further, most reported the availability of LSD as 'easy' or 'very easy' (68%) and that it had remained stable (75%) in 2017. Also similar to 2016, most of the responding RPU reported purchasing LSD from a friend (64%), at their friend's home (32%). LSD was most commonly used at the respondent's own home (29%).

## **Cannabis**

Reports of recent cannabis use remained common among RPU in 2017 (88%). Participants reported using cannabis on a median of 30 days in the last six months, a small increase on the median of 22 days reported by RPU in 2016, with almost all (99%) recent users reporting smoking it. RPU reported typically paying \$15 for a gram of hydroponic cannabis and \$15 for a gram of bush cannabis, and most noted that potency was either medium or high for both hydroponic (77%) and bush cannabis (90%). The majority (64%) of participants reported hydroponic cannabis potency to be stable in the preceding six months, as did most (84%) of the participants who were able to comment on the potency of bush cannabis, similar to 2016. Most participants also reported that both hydroponic and bush cannabis were either 'easy' or 'very easy' to obtain (95% and 70% respectively).

## **Alcohol**

As in previous years, all of the Victorian EDRS participants interviewed in 2017 reported lifetime use of alcohol, initiating drinking at a median age of 14 years, while 96% reported use in the preceding six months. This group of RPU reported drinking on a median of 30 days, fewer than in 2016, but comparable to 2015. A smaller proportion reported drinking alcohol during a stimulant drug binge in 2017 than in 2016 (66% vs. 74%).

## **Health and other issues**

Some RPU reported adverse consequences related to their drug consumption. One fifth (20%) of the 2017 RPU sample reported having overdosed on a stimulant drug in the preceding 12 months, a similar proportion to that recorded in 2016 (25%). Participants cited ecstasy (42%) as the main drug associated with their most recent stimulant overdose. Recent depressant drug overdose was reported by 19% of participants in 2017 and was typically attributed to alcohol (58%). 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, 24% as high and 8% as very high psychological distress. Nineteen per cent of respondents reported accessing a health or medical service in relation to their ERD use in the preceding six months.

In 2016, the Victorian specialist alcohol and other drug telephone counselling service DirectLine received calls identifying ecstasy (1%), amphetamine and/or other stimulants (5.5%), cocaine (0.9%) and cannabis (10.5%) as drugs of concern. Ambulance Victoria attended 649 incidents at which ecstasy use was recorded in 2016, the highest figure ever recorded in the Victorian EDRS

## **Risk behaviour**

Significantly fewer RPU in 2017 reported ever injecting a drug (3% vs. 12% in 2016,  $p < 0.05$ ). Two RPU reported injecting a drug in the preceding six months in 2016.

Sixty-five per cent of the 2017 EDRS sample reported recent penetrative sex with a casual partner in the past six months, and among those who reported recent penetrative sex with a casual partner while not using alcohol or other drugs, 50% reported not using a condom the last time they had sex when sober. Fifty-six 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, there was a significant increase in the number of RPU who reported not using a condom with a casual partner the last time they had sex while under the influence (71% vs. 53% in 2016,  $p < 0.05$ ).

The proportion (62%) of participants reporting ever having a sexual health check-up was similar to that in 2016 (72%). Twelve per cent reported being diagnosed with a sexually transmitted infection at some point in their lifetime.

Risky alcohol use was measured among participants in 2017. Sixty per cent of RPU scored eight or more on the World Health Organization's Alcohol Use Disorders Identification Test (AUDIT) – a level at which alcohol intake is considered hazardous – similar to the figure measured in 2016 (58%).

## **Law enforcement-related trends associated with ERD use**

In 2017, nine per cent of the RPU sample reported that they had been arrested in the past 12 months and 39% reported engaging in any type of crime in the preceding month, a significantly greater percentage than in 2016 (26%,  $p < 0.05$ ). Drug dealing and property crime were the most common types of crime reported by the RPU sample (24% and 21% respectively).

## **Conclusions**

The results reported here describe ERD use and trends in 2017 in Melbourne, Victoria, and enable comparisons with the findings of previous EDRS studies.

The key findings were as follows: The prevalence of reported lifetime use of ecstasy crystal, methamphetamine powder and crystal methamphetamine decreased significantly between 2016 and 2017. The prevalence of reported recent use of ecstasy crystal also decreased significantly. There were no significant increases in reported lifetime or recent use of any substance between 2016 and 2017. Ecstasy pills remained the most commonly used form of the drug for lifetime use and their median price fell to the lowest recorded in the Victorian EDRS; however, ecstasy capsules were the form most commonly reported for recent use. Speed became significantly harder to obtain. The median amount of crystal methamphetamine used in a typical 'session' and the median number of days used both decreased compared to 2016. Recent ketamine use remained common among RPU in 2017, and Ketamine remained easy to access. Psychological distress, as measured by the 10-item Kessler Psychological Distress Scale (K10) remained similar to 2016 scores, where significantly more participants scored in the 'high' and 'very high' range compared to 2015. Crime was more prevalent among the 2017 sample, with a significantly higher percentage of RPU reporting 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 new psychoactive substance (NPS) use, the emergence of new online marketplaces, the possible return of high methamphetamine and ecstasy purity, high rates of alcohol use (with some participants using it 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 2017 Victorian EDRS, we recommend:

- further exploration of methods to reduce and prevent the use of alcohol at harmful levels among the regular psychostimulant users;
- tailored research and ongoing surveillance activities capable of capturing information on online marketplaces, as these appear to be the preferred method of those 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 RPUs' 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 fifteenth iteration of the Ecstasy and related Drugs Reporting System (EDRS). These trends have been extrapolated from two data sources: interviews with current regular users of ERD, and a collation of secondary indicator data sources. These two data sources are compared in order to minimise the biases and weaknesses inherent in each.

For the purposes of the study, the terms 'ecstasy and related drugs' or 'psychostimulants' include drugs that are routinely used at 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 (*d*-lysergic acid), ketamine and GHB (gamma-hydroxybutyrate).<sup>1</sup>

In 2017, 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 2017 results and those reported in the 2005 to 2016 studies where appropriate.

## 1.1 Study aims

The overall aim of the 2017 Victorian EDRS was to extend to a fifteenth 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 2017 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 2017 EDRS used the methodology trialled in the feasibility study (Breen, Topp, & Longo, 2002), subsequently used in the 2003–2016 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; and
2. 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 two data sources were compared 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 2017 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 for the 12 months preceding interview.

### 2.2 Recruitment

One hundred RPU were interviewed for the Victorian 2017 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 2017 Victorian EDRS continued a transition away from using advertisements in street press as the main method of recruitment to relying more heavily on social media as use of printed publications declines (71% recruited via social media, 1% recruited via street press, vs. 56% and 18% respectively in 2016).

### 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.14.0. For selected key variables, tests of proportions were used to determine the significance of differences between 2016 and 2017 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 key experts**

Previously, EDRS has included interviews with key experts (had at least weekly contact and/or had contact with 10 or more ecstasy users in the last six months; or had significant knowledge, in the course of their employment, of users of ERD throughout the preceding six months) about emerging drug trends. No key expert witnesses were conducted for the 2017 EDRS.

## **2.5 Other indicators**

Primary information collected from the RPU surveys 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 2016/17 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 2016 National Drug Strategy Household Survey (NDSHS, 2017).

### **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 2016/17 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 2015/16 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 2016/17 financial year.
- DirectLine is a 24-hour specialist telephone service in Victoria (operated by Turning Point) 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 2002 and 2016. Please note that amphetamine data from DirectLine is not included due to the introduction of the 'Ice Advice Line', to which methamphetamine related calls have been directed since its launch in early 2015.

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

- Turning Point manages electronic drug-related ambulance attendance data extracted from a database called the Victorian Ambulance Clinical Information System. Data for the period between January 2013 and December 2016 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 2017 in Victoria were comparable to those of previous years (Table 1). The sample was predominantly heterosexual (79%) and well educated (42% with tertiary qualifications). More males (53%) were recruited than females. The mean age was 21 years, 16% reported being employed full-time and the sample reported a mean weekly income of \$435. Ten participants reported previous participation in the EDRS. Similar to 2016, the 2017 RPU sample was mostly recruited via the internet (71%), predominately Facebook (70%); followed by snowballing/word-of-mouth (27%). The utility of street press as a recruitment method continued to decline, with this method recruiting 40% of the Victorian EDRS sample in 2015, 18% in 2016 and 1% in 2017.

**Table 1: Demographic characteristics of EDRS participants, 2012–2017**

	2012 (n=100)	2013 (n=100)	2014 (n=100)	2015 (n=100)	2016 (n=100)	2017 (n=100)
Mean age (years)	24	26	25	24	24	21
Male gender (%)	67	63	69	59	47	57
English-speaking background (%)	94	100	93	89	98	94
ATSI (%)	2	2	2	0	3	0
Heterosexual (%)	90	85	89	84	85	79
Mean number school years	12	12	12	12	12	12
Tertiary qualifications (%)	52	59	50	49	50	42
Employed full-time (%)	23	31	17	14	16	16
Full-time students (%)	8	18	21	13	9	12
Unemployed (%)	16	16	14	16	14	17
Current drug treatment (%)	7	4	1	3	2	1
Mean income per week (\$)	530	700	564	446	489	435

Source: EDRS participant interviews

## 4 DRUG CONSUMPTION PATTERNS

### Summary

- The proportion of participants (40%) reporting ecstasy as their main drug of choice (favourite or preferred drug) was similar to the 2016 EDRS sample (44%).
- Ecstasy capsules became the most commonly reported form of ecstasy recently used.
- The prevalence of reported lifetime use of ecstasy crystal, methamphetamine powder and crystal methamphetamine decreased significantly between 2016 and 2017.
- The prevalence of reported recent use of ecstasy crystal also decreased significantly.
- There were no significant increases in reported lifetime or recent use of any substance between 2016 and 2017.
- The median reported days of use of crystal methamphetamine in the preceding six months decreased from 15 days in 2016 to 2.5 days.
- The prevalence of reported daily cannabis consumption increased significantly.

## 4.1 Drug use history and current drug use

In 2017, 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. There were no significant increases reported for the recent use of any drugs in 2017. There were significant decreases for the reported lifetime use of ecstasy crystal, methamphetamine powder and crystal methamphetamine in 2017. The prevalence of reported recent use ecstasy crystal also decreased significantly.

Similar to 2016, almost half (38%) of the 2017 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.

**Table 2: Lifetime and recent drug use of EDRS participants, 2012–2017**

	2012 (N=100)	2013 (N=100)	2014 (N=100)	2015 (N=100)	2016 (N=100)	2017 (N=100)
<b>Alcohol</b>						
Ever used (%)	100	100	100	100	100	100
Used last 6 months (%)	97	93	99	96	97	96
<b>Cannabis</b>						
Ever used (%)	97	100	100	98	100	98
Used last 6 months (%)	85	87	81	90	86	88
<b>Tobacco</b>						
Ever used (%)	94	92	98	96	95	95
Used last 6 months (%)	87	82	83	87	88	86
<b>Ecstasy pill</b>						
Ever used (%)	99	97	100	98	98	96
Used last 6 months (%)	92	86	90	84	91	83
<b>Ecstasy capsule</b>						
Ever used (%)	83	85	83	90	93	94
Used last 6 months (%)	67	67	66	76	84	90
<b>Ecstasy powder</b>						
Ever used (%)	43	72	61	66	53	52
Used last 6 months (%)	31	51	43	46	27	34
<b>Ecstasy crystal*</b>						
Ever used (%)	-	58	80	59	73	52
Used last 6 months (%)	-	49	64	54	59	43
<b>Methamphetamine powder (speed)</b>						
Ever used (%)	94	86	89	78	85	70
Used last 6 months (%)	77	58	56	45	50	43
<b>Methamphetamine base (base)</b>						
Ever used (%)	22	30	31	22	21	14
Used last 6 months (%)	13	8	10	5	2	0
<b>Crystal methamphetamine (ice/crystal)</b>						
Ever used (%)	57	62	42	33	30	18
Used last 6 months (%)	48	45	34	19	18	10
<b>Pharmaceutical stimulants (licit &amp; illicit)</b>						
Ever used (%)	46	65	65	54	55	46
Used last 6 months (%)	21	30	32	33	34	26
<b>Cocaine</b>						
Ever used (%)	78	78	84	71	81	70
Used last 6 months (%)	54	46	58	46	56	53
<b>LSD</b>						
Ever used %	63	88	77	85	70	72
Used last 6 months %	38	52	49	46	52	52
<b>MDA</b>						
Ever used (%)	27	31	33	35	30	29
Used last 6 months (%)	12	13	21	20	12	16
<b>Ketamine</b>						
Ever used %	63	76	82	73	84	83
Used last 6 months %	35	46	63	50	72	80
<b>GHB</b>						
Ever used (%)	24	30	34	23	26	17
Used last 6 months (%)	7	14	13	9	14	15
<b>Amyl nitrite</b>						
Ever used (%)	53	69	71	67	60	61
Used last 6 months (%)	21	23	34	28	36	44
<b>Nitrous oxide</b>						
Ever used (%)	39	72	70	79	78	80
Used last 6 months (%)	22	48	53	53	62	73
<b>Psilocybin mushrooms</b>						
Ever used (%)	74	85	78	81	70	66
Used last 6 months (%)	38	38	25	40	29	36
<b>Heroin</b>						
Ever used (%)	17	25	15	11	15	7
Used last 6 months (%)	5	10	6	5	7	2
<b>Benzodiazepines (illicit &amp; licit)</b>						
Ever used (%)	59	80	72	59	66	60
Used last 6 months (%)	46	53	59	34	52	47
<b>Other opioids (illicit &amp; licit)</b>						
Ever used (%)	33	41	60	42	46	36
Used last 6 months (%)	13	21	27	24	28	21
<b>Antidepressants (illicit &amp; licit)</b>						
Ever used (%)	36	35	26	23	7**	3
Used last 6 months (%)	19	10	7	8	1**	1

Source: EDRS participant interviews

\* Ecstasy crystal questions introduced in 2013

\*\*Licit antidepressants not included in 2016 and 2017 survey



## 4.2 Ecstasy use

### 4.2.1 Ecstasy use among EDRS participants

In 2017, 40% of participants reported ecstasy as their main drug of choice ('favourite or preferred' drug), compared to 44% in 2016. RPU reported using a median of two ecstasy pills in a 'typical' session. Weekly or more use of ecstasy pills in the preceding six months decreased significantly from 2016 (9% vs. 20%,  $p < 0.05$ ) (Table 3). Almost half ( $n=48$ ) RPU reported using other drugs on the last occasion they used ecstasy, a significant decrease from 95% in 2016.

**Table 3: Patterns of ecstasy use among EDRS participants, 2012–2017**

Ecstasy	2012 (n=100)	2013 (n=100)	2014 (n=100)	2015 (n=100)	2016 (n=100)	2017 (n=100)
Mean age first used ecstasy (years)	18	19	18	18	18	18
Ecstasy 'favourite' drug (%)	35	26	44	25	44	40
Median days used ecstasy pills last 6 months	12	10	12	18	6	5
Use ecstasy pills weekly or more (%)	25	29	21	18	20	9
Median ecstasy pills in 'typical' episode of use	2	2	2	2	2	2
Typically use >1 pill (%)	83	81	75	60	68	25
Main route of administration of ecstasy pills in the last 6 months (%)*						
Swallow	88	87	86	91	100	99
Snort	10	11	10	9	19	16
Inject	1	1	0	0	0	0
Ever injected ecstasy pills (%)**	4	8	2	-	-	
Used other drugs in conjunction with ecstasy last occasion (%)	95	92	90	95	95	48

Source: EDRS participant interviews

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

\*\* Routes of administration ever used not asked in 2015, 2016 and 2017 survey

\*\*\* Drugs used to 'come down' from ecstasy last occasion not asked in 2016 and 2017 survey

Recent use of ecstasy capsules was reported by 90% of RPU, an increase from 2016 (84%) (Table 4). A similar proportion of RPU reported lifetime (52% vs. 53% in 2016) use and recent use (34% vs. 27% in 2016) use of ecstasy powder. There was a significant decrease in the number of people reporting recent use of ecstasy crystal (43% vs 59% in 2016,  $p < 0.05$ ). The difference between the proportion who reported use of ecstasy crystals and the proportion who reported use of ecstasy powder in the last six months was smaller this year than in 2016 (43% and 34% vs. 59% and 27% respectively). Ecstasy capsules were the most commonly reported form of ecstasy used in the previous six months in 2017. There was a significant decrease in the number of people who reported using other drugs in conjunction with ecstasy on their last occasion of use (48% vs 95% in 2016,  $p < 0.05$ ).

**Table 4: Patterns of ecstasy pill, capsule, powder and crystal use among EDRS participants, 2017**

Ecstasy	Ecstasy pill (n=100)	Ecstasy capsule (n=100)	Ecstasy powder (n=100)	Ecstasy crystal (n=100)
Lifetime use (%)	96	94	52	52
Used ecstasy in last 6 months (%)	83	90	34	43
Mean age in years first used (range)	18 (14-28)	18 (14-30)	19 (14-29)	19 (14-30)
Median days used last 6 months (range)	5 (1-72)	10 (1-72)	5 (1-24)	5 (1-30)
Median amount used in 'typical' episode of use* (range)	2 pills (1-17)	2 caps (1-15)	0.5 grams** (0.25-1)	2 points*** (1-5)
Route of administration in the last 6 months* (%)				
Swallow	99	96	44	56
Snort	16	33	88	79
Inject	0	0	0	0
Other	4	2	6	7

Source: EDRS participant interviews

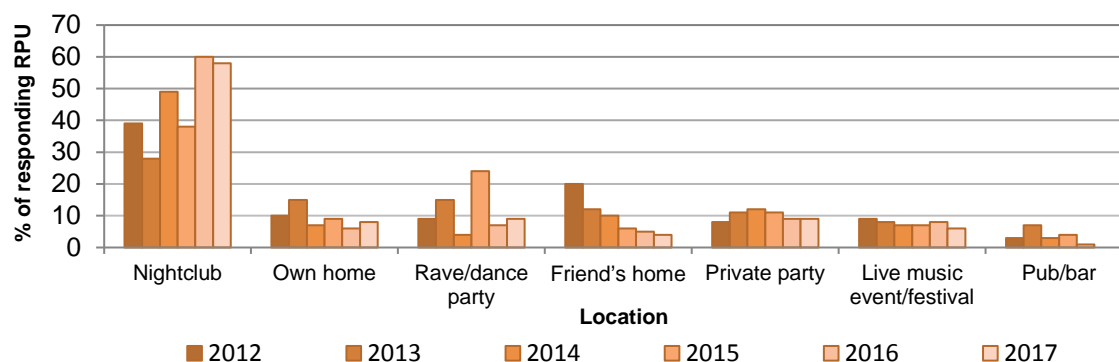
\* Among those who had used ecstasy in the previous 6 months

\*\* 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 2017, nightclubs were the most commonly reported location of most recent ecstasy use.

**Figure 1: Location of most recent ecstasy use, 2012–2017**

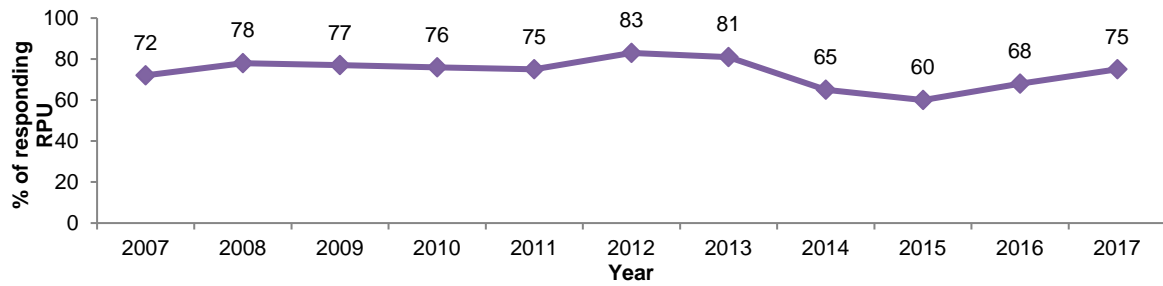


Source: EDRS participant interviews

#### 4.2.2 Ecstasy trends over time

In 2017, 75% of the Victorian EDRS sample reported typically using more than one ecstasy pill per episode of use (Figure 2) and 30% reported typically using more than two pills per episode of use (the highest reported number of pills used per typical episode of use was 15). RPU reported using ecstasy pills on a median of five days in the preceding six months, one day less than the number of median days reported in 2016 (see Table 4).

**Figure 2: Percentage of EDRS participants who report typically using more than one ecstasy pill, 2007–2017**



Source: EDRS participant interviews

#### 4.2.3 Ecstasy use in the general population

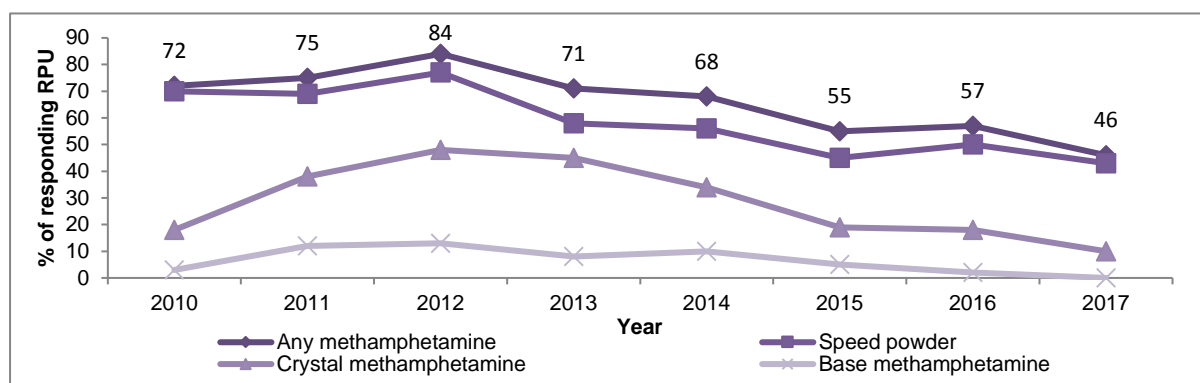
The 2016 NDSHS provides the most recent national prevalence of ecstasy use in the general population. The results of this survey indicate that, in 2016, 2.3% of the Australian population aged 14 years and over reported ecstasy use in the last 12 months (AIHW, 2017), a figure similar to 2013 (2.5%); the highest prevalence of recent ecstasy use was reported by 20–29-year-olds (7%), a decrease from 2013 (8.6%) (AIHW, 2014). The percentage of the Victorian population aged 14 years and over who reported ecstasy use in the last 12 months (2.5%) was slightly higher than the national figure in 2016 (AIHW, 2014).

## 4.3 Methamphetamine use

### 4.3.1 Methamphetamine use among EDRS participants

The majority (73%) of participants reported lifetime use of one or more forms of methamphetamine (speed powder, base or crystal) and 46% of the sample had done so in the previous six months. Lifetime methamphetamine use decreased significantly from 2016 (73% vs 85%,  $p < 0.05$ ) while recent use decreased non-significantly (46% vs 57% in 2016) (Figure 3).

**Figure 3: Recent use of any methamphetamine, speed powder, crystal and base methamphetamine, 2010–2017**



Source: EDRS participant interviews

### 4.3.2 Methamphetamine powder (speed)

There were significantly fewer reports of lifetime methamphetamine powder use in 2017 than in 2016 (70% vs 85%,  $p < 0.05$ ). Recent use of methamphetamine powder decreased non-significantly (43% in 2017 vs 50% in 2016). Comparable with previous years, the median reported age of first speed use was 18 years (range 12–28 years). The median quantity used during a typical episode of use was 0.15 gram (range 0.05–3 grams) (Table 5).

### 4.3.3 Methamphetamine base

Consistent with previous years, methamphetamine base use remains low in Victoria among RPU. Fourteen per cent of RPU reported having ever used methamphetamine base in 2017, while no one reported using methamphetamine base in the preceding six months. The median reported age of first methamphetamine base use was 18 years (range 15–28 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, 2012–2017**

<b>Speed</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
	<b>(n=100)</b>	<b>(n=100)</b>	<b>(n=100)</b>	<b>(n=100)</b>	<b>(n=100)</b>	<b>(n=100)</b>
Ever used (%)	94	86	89	78	85	70
Used preceding 6 months (%)	77	58	56	45	50	43
Median days used last 6 months* (range)	6 (1-120)	4 (1-80)	4 (1-180)	2 (1-40)	3 (1-50)	3 (1-180)
<b>Median quantities used* (grams)</b>						
Typical (range)**	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	0.35 (0.1-14) n=9
Heavy (range)**	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	1 (0.1-421) n=9

Source: EDRS participant interviews

\* Among those who used speed powder in the previous six 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 2017, the percentage of RPU in Victoria reporting lifetime use of crystal methamphetamine decreased significantly from 2016 (18% vs 30%,  $p < 0.05$ ). Recent crystal methamphetamine use declined less sharply (10% vs 18% in 2016) (Table 6). When compared with 2016 (19.5 years), RPU in 2017 reported initiating crystal methamphetamine use at a similar median age of 19 years (range 14–34 years). The most commonly reported route of administration of crystal methamphetamine in the preceding six months was smoking (90%). The amount of crystal methamphetamine used in a typical session by RPU (1.5 points) remained constant in 2017. The median quantity of crystal methamphetamine used in a heavy session decreased from 4 points in 2016 to 1.5 points in 2017.

**Table 6: Patterns of crystal methamphetamine use among EDRS participants, 2012–2017**

<b>Crystal methamphetamine</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
	<b>(n=100)</b>	<b>(n=100)</b>	<b>(n=100)</b>	<b>(n=100)</b>	<b>(n=100)</b>	<b>(n=100)</b>
Ever used (%)	57	62	42	33	30	18
Used last six months (%)	48	45	34	19	18	10
Median days used last 6 months* (range)	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	2.5 (1-100) n=10
<b>Median quantities used* (points)</b>						
Typical (range)	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	1.5** (0.05-35) n=10
Heavy (range)	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	1.5** (0.05-70) n=10

Source: EDRS participant interviews

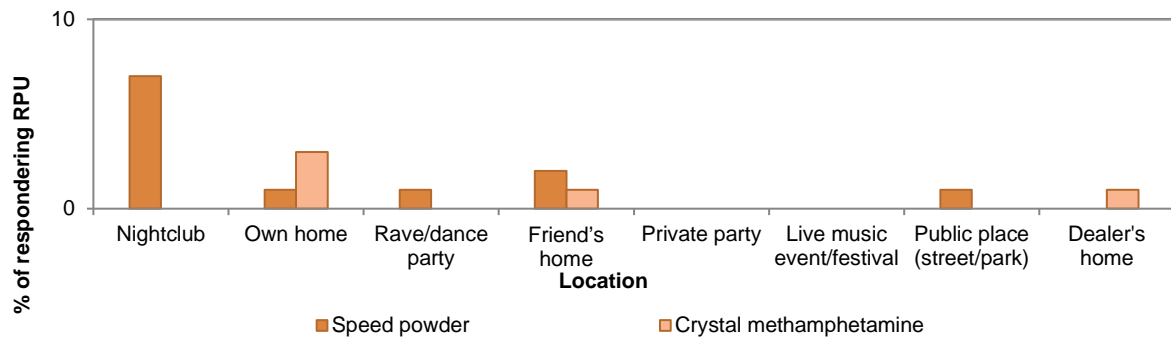
\* Among those who used crystal methamphetamine in the last 6 months

\*\* 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 of methamphetamine powder use (58%) followed by a friend's home (17%). All recent crystal methamphetamine users reported being in a private setting the last time they used: 60% at their own home, 20% at a friend's home and the remaining 20% at a dealer'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, 2017



Source: EDRS participant interviews

#### 4.3.6 Methamphetamine use in the general population

The 2016 NDSHS report provides the most recent national prevalence of methamphetamine use in the Australian general population. The report indicates that, in 2016, 1.4% of the Australian population aged 14 years and over reported recent (in the last 12 months) use of methamphetamines, a significant decrease from 2.1% in 2013 (AIHW, 2014). Among regular methamphetamine users, the most frequently used form of methamphetamine was crystal methamphetamine, or 'ice', which was used by 57%, a rise from 50% in 2013 and 22% in 2010 (AIHW, 2017). As with ecstasy use, the highest prevalence of recent (2.8%) methamphetamine use nationally was reported by the 20–29-year-old age group, a statistically significant decrease from 5.7% in 2013 (AIHW, 2017). The figure for the Victorian population aged 14 years and over who reported recent use of methamphetamines (1.5%) was similar to the national figure in 2016.

## 4.4 Cocaine use

### 4.4.1 Cocaine use among EDRS participants

A smaller percentage of participants reported having ever used cocaine in 2017 (70%) than in 2016 (81%). A similar proportion reported using it in the preceding six months (53% vs. 56% in 2016) (Table 7).

In 2017, the median age of first use among RPU who reported using cocaine was 19 years (range 16–28 years), the same as in 2016. EDRS participants reported using cocaine on a median of three days (range 1–20), and used a median of half a gram (5 points, range 0.1–2 grams) during a typical episode of use and a gram (10 points, range 0.2–2.5 grams) during a heavy episode of use. Of those who reported using cocaine in the last six months, 23% reported using it more frequently than once a month, consistent with the 20% recorded in 2016. All recent users reported snorting cocaine (100%), with 8% reporting they had also swallowed it.

**Table 7: Patterns of cocaine use among EDRS participants, 2012–2017**

Cocaine	2012 (n=100)	2013 (n=100)	2014 (n=100)	2015 (n=100)	2016 (n=100)	2017 (n=100)
Ever used %	78	78	84	71	81	70
Used last six months %	54	46	58	46	56	53
Median days used last 6 months* (range)	3 (1-50)	2 (1-26)	3 (1-36)	2.5 (1-30)	2 (1-34)	3 (1-20)
<b>Median quantities used (grams)*</b>						
Typical (range)	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	0.5** (0.1-2) n=11
Heavy (range)	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	1 (0.2-2.5) n=14

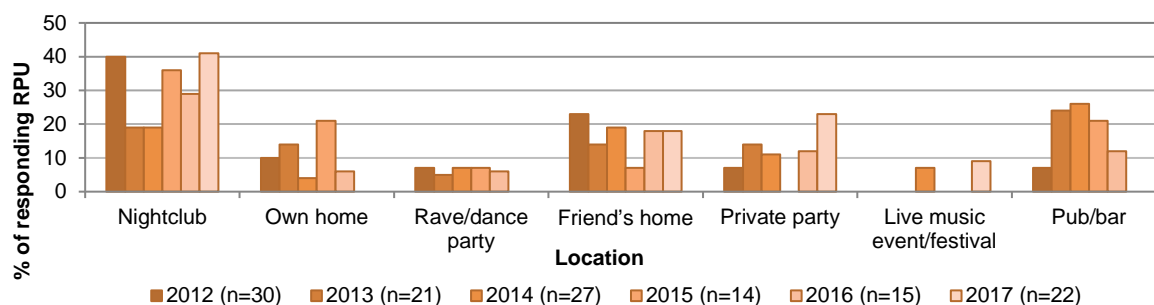
Source: EDRS participant interviews

\* Among those who used cocaine in the last six 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

The most frequently reported last location of cocaine use in 2017 was a nightclub (41%) followed by 'private party' (23%) and then 'friend's home' (18%) (Figure 5).

**Figure 5: Location of most recent cocaine use, 2012–2017**



Source: EDRS participant interviews

### 4.4.2 Cocaine use in the general population

The 2016 NDSHS provides the most recent prevalence of cocaine use in the Australian general population. This survey indicates that, in 2016, 2.5% of the Australian population aged 14 years and

over reported recent (in the last 12 months) cocaine use, an increase from 2013 (2.1%). The figure for the Victorian population was identical to the national figure (AIHW, 2017).



## 4.5 Ketamine use

### 4.5.1 Ketamine use among RPU

In 2017 the majority (83%) of RPU reported lifetime use of ketamine, with most (80%) reporting use in the preceding six months (Table 8). Similar to 2016, recent ketamine users reported a median of 5 days use over the past six months, using a median of two bumps during a typical episode (range 1–25 bumps) and three bumps during a heavy episode of use (range 1–25 bumps). As in 2016 (n=27), the most commonly reported unit of measure for ketamine consumption was ‘points’ (n=36). RPU reported using a median two points during a typical episode (range 0.05–6) and a median of two points during a heavy episode (range 0.05-7) in the preceding six months. Almost all (99%) recent ketamine users reported snorting it, with swallowing (8%) and smoking (3%) being the only other routes of administration reported.

**Table 8: Patterns of ketamine use among EDRS participants, 2012–2017**

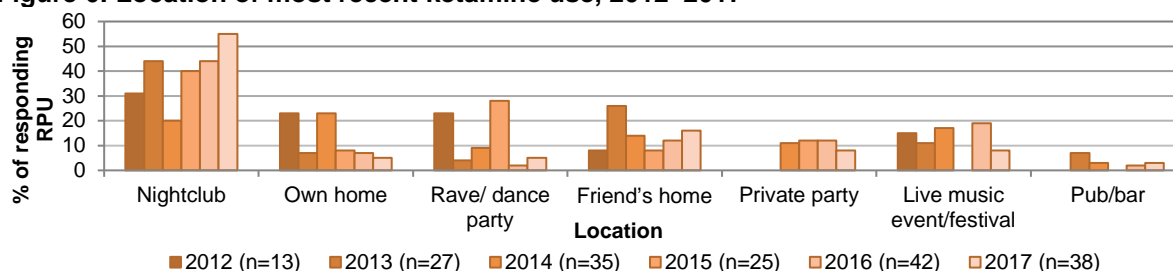
Ketamine	2012 (n=100)	2013 (n=100)	2014 (n=100)	2015 (n=100)	2016 (n=100)	2017 (n=100)
Ever used (%)	63	76	82	73	84	83
Used last 6 months (%)	35	46	63	50	72	80
Median days used last 6 months* (range)	2 (1-15)	4 (1-48)	3 (1-70)	4 (1-35)	5 (1-72)	5 (1-60)
<b>Median quantities used (bumps)*</b>						
Typical (range)	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	2 (1-25) n=14
Heavy (range)	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	3 (1-25) n=13

Source: EDRS participant interviews

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

As presented in Figure 6, most RPU interviewed in 2017 reported using ketamine on the most recent occasion at a nightclub (55%) followed by a friend's home (16%).

**Figure 6: Location of most recent ketamine use, 2012–2017**



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 0.4% of respondents in the 2016 NDSHS reported ketamine use in the last 12 months and only 1.9% reported ever having used the drug (AIHW, 2017). The figure for the Victorian population aged 14 years and over who reported recent use of ketamine (0.6%) was similar to the national figure in 2016.

## 4.6 GHB use

### 4.6.1 GHB use among EDRS participants

Lifetime use of GHB was reported by 17% of respondents interviewed in 2017 and recent GHB use by 15% of respondents. These rates are comparable to reported use in 2016 and 2015. RPU reported recent GHB use on a median of five days (range 1–100 days) in the preceding six months, and four days in 2016 (Table 9). A median of 2.75 ml was reported as the amount used during a typical episode of use (range 2–40 ml), and 4ml during a heavy episode of use (range 2-60 ml). Swallowing was the only route of administration reported for recent GHB use. Thirteen 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, 2012–2017**

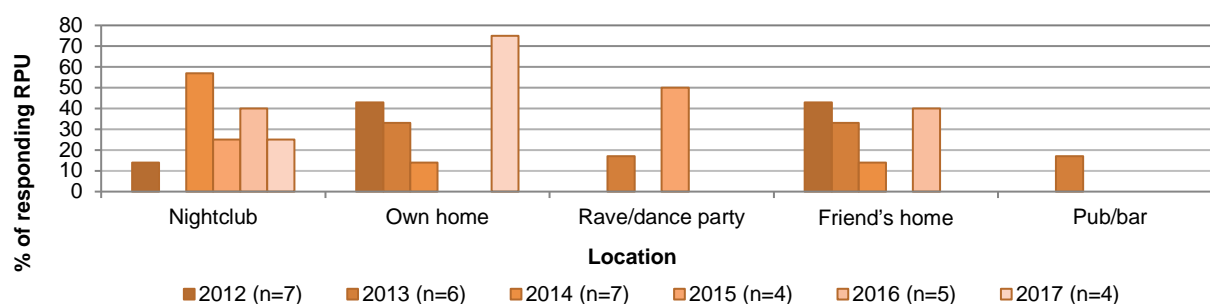
GHB	2012 (n=100)	2013 (n=100)	2014 (n=100)	2015 (n=100)	2016 (n=100)	2017 (n=100)
Ever used (%)	24	30	34	23	26	17
Used last six months (%)	7	14	13	9	14	15
Median days (range) used last 6 months*	6 (1-135)	2 (1-180)	10 (1-40)	3 (1-25)	4.5 (1-50)	5 (1-100)
<b>Median quantities used* (ml)</b>						
Typical (range)	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	3 (2-40) n=12
Heavy (range)	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	4 (2-60) n=12

Source: EDRS participant interviews

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

As in previous years, only a few RPU (n=4) reported the location of their most recent GHB use. Three reported last use at home (75%) and one (25%) reported last use at a nightclub (Figure 7).

**Figure 7: Location of most recent GHB use, 2012–2017**



Source: EDRS participant interviews

### 4.6.2 GHB use in the general population

Approximately 0.1% of respondents from the 2016 NDSHS reported GHB use in the last 12 months, and only 1% reported ever having used the drug (AIHW, 2017). The figure for the Victorian population aged 14 years and over who reported recent use of GHB (0.1%) was the same as the national figure in 2016 (AIHW, 2017).

## 4.7 LSD use

### 4.7.1 LSD use among EDRS participants

Lifetime LSD use reported by RPU in 2017 was similar to that in 2016 (72% vs. 70% respectively). Recent LSD use was the same as in 2016 (52%) (Table 10). Participants in 2017 reported use of LSD on a median of two days in the preceding six months (range 1–180 days). The median number of tabs used during a typical session was one (range 0.1–10 tabs), the same as for a heavy session (range 0.25–100 tabs)

**Table 10: Patterns of LSD use among EDRS participants, 2012–2017**

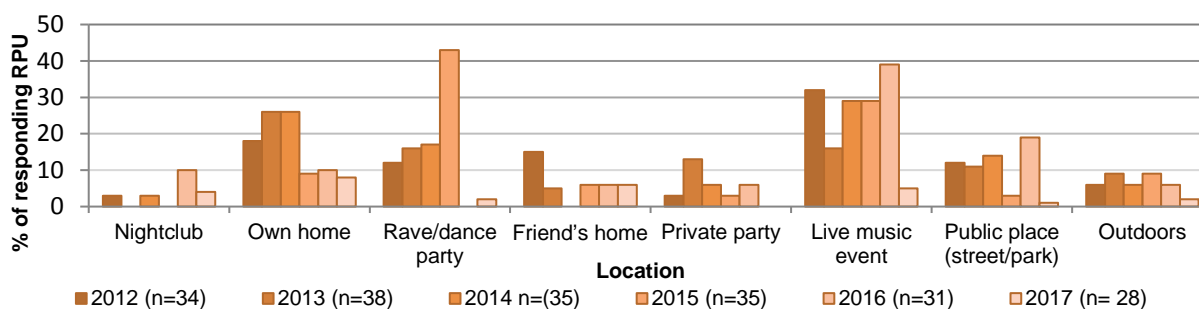
LSD	2012 (n=100)	2013 (n=100)	2014 (n=100)	2015 (n=100)	2016 (n=100)	2017 (n=100)
Ever used (%)	63	88	77	85	70	72
Used last 6 months (%)	38	52	49	46	52	52
Median days used last 6 months* (range)	3 (1-30)	3 (1-26)	3 (1-25)	3 (1-40)	2 (1-30)	3 (1-180)
<b>Median quantities used* (tabs)</b>						
Typical (range)	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	1 (0.1-10) n=45
Heavy (range)	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	1 (0.25-100) n=46

Source: EDRS participant interviews

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

The 2017 RPU sample most commonly reported their most recent LSD use occurring at their own home (28.6%), followed by a friend's home (21.4%).

**Figure 8: Location of most recent LSD use, 2012–2017**



Source: EDRS participant interviews

### 4.7.2 Hallucinogen use in the general population

'Hallucinogens' is a category included in the NDSHS, encompassing LSD, magic mushrooms, angel's trumpet and datura (Department of Health, 2013). The most recent NDSHS found that only 1% of the Australian general population reported recent hallucinogen use, a significant decrease from 1.3% in 2013; while 9.4% reported lifetime use (AIHW, 2017). The percentage of the Victorian population aged over 14 years old who reported recent hallucinogen use was 1.1% in 2016 (AIHW, 2017).

## 4.8 Cannabis use

### 4.8.1 Cannabis use among RPU

Cannabis use remains common among EDRS participants, with 88% of the 2017 sample reporting use within the last six months (Table 11). The median reported age of first use was 15 years (range 12–22 years). RPU reported using cannabis on a median of 30 days in the last six months. In 2017, a significantly larger proportion of RPU reported daily cannabis consumption in the preceding six months than in 2016 (20.5% vs 9%,  $p < 0.05$ ).

Most recent cannabis users reported smoking it (99%), while 19% reported swallowing and 15% reported inhaling or vaporising it. Participants who reported smoking cannabis in a joint ( $n=29$ ) on their last occasion of use reported smoking a median of one joint (range 0.2–7 joints) while those who were able to quantify the amount used the last time they smoked cannabis in grams ( $n=42$ ) reported using a median of 1 gram (range 0.25–7 grams).

**Table 11: Patterns of cannabis use among EDRS participants, 2012–2017**

<b>Cannabis</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
	<b>(n=100)</b>	<b>(n=100)</b>	<b>(n=100)</b>	<b>(n=100)</b>	<b>(n=100)</b>	<b>(n=100)</b>
Ever used %	97	100	100	98	100	98
Used last six months %	85	87	81	90	86	88
<b>Of those who had used</b>						
Median days (range) used last 6 months	72 (1-180)	50 (1-180)	24 (1-180)	65 (1-180)	22 (1-180)	30 (1-180)

Source: EDRS participant interviews

### 4.8.2 Cannabis use in the general population

The 2016 NDSHS provides national figures for cannabis use in the general population. The results indicate that, in 2016, 10.4% of the Australian population aged 14 years and over reported recent (in the last 12 months) cannabis use (AIHW, 2017). Figures for Victoria were similar to the national figures in 2016, with 9.9% reporting use of the drug within the past 12 months (AIHW, 2017).

## 4.9 Other drug use

### 4.9.1 Alcohol

All RPU reported alcohol use in their lifetime and almost all (96%) reported use in the preceding six months, comparable with previous years (Table 12). The median reported age of first use was 14 years (range 5–20 years).

Participants interviewed in 2017 reported drinking on a median of 48 days (range 1–160 days) in the preceding six months, the lowest median number of days in the last five years. Of the 30 respondents who reported bingeing on stimulants, 60% reported consuming alcohol. A smaller proportion of RPU reported drinking alcohol during a stimulant drug binge in 2017 than in 2016 (60% vs. 74%).

**Table 12: Patterns of alcohol use among EDRS participants, 2012–2017**

Alcohol	2012 (n=100)	2013 (n=100)	2014 (n=100)	2015 (n=100)	2016 (n=100)	2017 (n=100)
Ever used %	100	100	100	100	100	100
Used last 6 months %	97	93	99	96	97	96
Median days (range) used last 6 months	48 (1-180)	50 (2-180)	48 (2-180)	32.5 (1-180)	48 (1-180)	30 (1-160)
Drank alcohol last ecstasy use occasion %	80	66	87	83	70	34
Drank more than 5 standard drinks last ecstasy use occasion%*	78	85	76	53	62	17
Drank alcohol during a binge%**	82	63	66	58	74	60

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

### 4.9.2 Tobacco

Consistent with previous years, reports of lifetime (95%) and recent (86%) tobacco use were common among RPU in 2017. The median age of first tobacco use was 15 years (range 9–24 years). Among those who reported recent use, the proportion of RPU who reported smoking daily was similar to that in 2016 (40% vs 43% in 2016).

### 4.9.3 Psilocybin or magic mushrooms (mushrooms)

In 2017, 66% of participants reported having ever used mushrooms, down slightly from 2016 (70%), and a slightly larger proportion reporting using mushrooms in the preceding six months (36% vs 29% in 2016). The median number of days used in the preceding six months remained steady (2 days, range 1-24 days vs. 2 days, range 1–20 days in 2016).

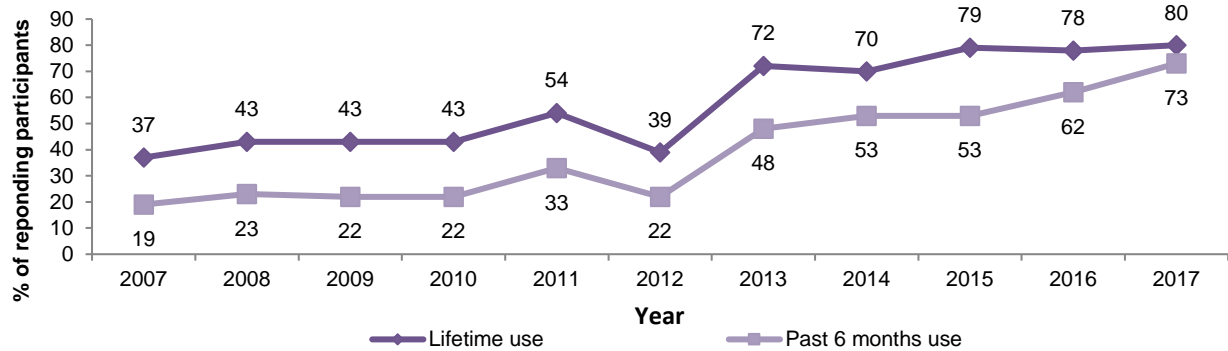
### 4.9.4 MDA (3,4-methylenedioxyamphetamine)

In 2017 methylenedioxyamphetamine (MDA) lifetime use remained steady (29% vs 30% in 2016). MDA use in the preceding six months was also similar to 2016 (16% vs 12% in 2016). MDA use remained infrequent, occurring on a median of one day in the preceding six months (range 1–4 days), and typically involved a median of two pills/tablets per episode of use (range 1–8 pills/tablets).

#### 4.9.5 Nitrous oxide

In 2017 the proportion of RPU reporting lifetime use changed little (80% vs. 78% in 2016), while a significantly larger proportion reported recent use (73% vs. 62% in 2016,  $p < 0.05$ ) (Figure 9). Recent users reported using a median of 10 bulbs during a typical session (range 1–100 bulbs), the same of the median reported in 2016 (four bulbs, range 1–400 bulbs). Ten per cent of recent users reported using nitrous oxide during their last stimulant drug binge.

**Figure 9: Lifetime and recent use of nitrous oxide, 2007–2017**



Source: EDRS participant interviews

#### 4.9.6 Amyl nitrite

The proportion of RPU who reported lifetime use of amyl nitrite (61%) was similar to 2016 (60%), whilst the number of RPU who reported use in the last six months was slightly higher (44% vs. 36% in 2016). Amyl nitrite was used infrequently, with RPU reporting using on a median of two days (range 1–48 days) in the preceding six months.

#### 4.9.7 Benzodiazepines

A slightly smaller proportion reported both lifetime benzodiazepine use (60% vs. 66%) and recent use (47% vs. 52%) than in 2016. Of those who had used benzodiazepines in the preceding six months, the majority (91%) reported illicit use (not prescribed to them). Recent users reported use on a median of five days (1–170 days) during the preceding six months.

#### 4.9.8 Pharmaceutical stimulants

Lifetime use of any pharmaceutical stimulants (e.g. dexamphetamine; methylphenidate or Ritalin) (licit or illicit) was reported by 48% of participants in 2017, similar to the figure in 2016 (55%). Almost all (92%) of the 26 RPU who reported using pharmaceutical stimulants in the preceding six months had done so illicitly, similar to 2016 (98%). 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 one pill (range 0.25–4 pills).

#### 4.9.9 Heroin and pharmaceutical opioids

Reported lifetime use of heroin and pharmaceutical opioids was less prevalent in 2017 than in 2016. Lifetime heroin use fell in 2017 (7% vs. 15% in 2016); as did lifetime methadone use (2% vs. 5% in 2016), and use of other (licit or illicit) pharmaceutical opioid, such as morphine or oxycodone (36% vs. 46% in 2016).

The proportions of RPU reporting using opiates or pharmaceutical opioids in the preceding six months in 2017 were smaller than in 2016 for heroin (2% and 7% respectively), methadone (0% vs 1%

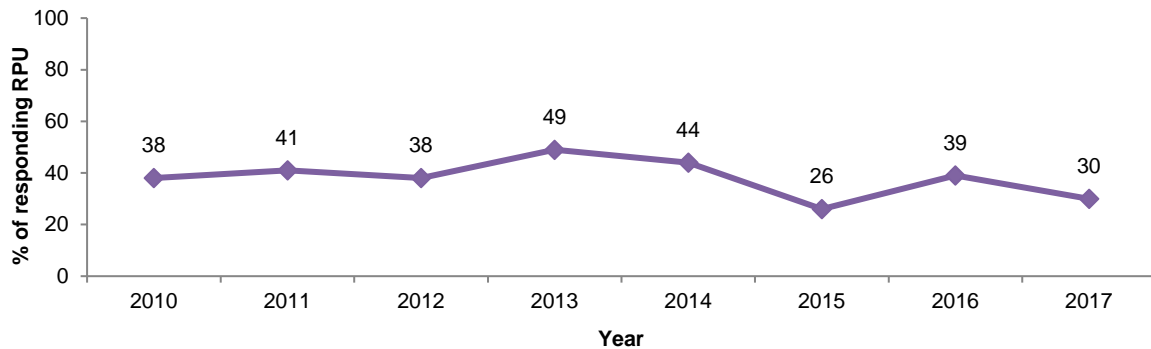
respectively) and pharmaceutical opioids (licit or illicit) (21% and 28% respectively). One participant reported recent buprenorphine use in the preceding six months in 2017.

Half (57%) of the 21% of RPU who reported using pharmaceutical opioids in the preceding six months had done so illicitly (not prescribed to them). The median frequency of use was two days in the preceding six months (range 1–90 days), a decrease from 2016 (median 4 days, range 1–49 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 smaller proportion of RPU in 2017 reported bingeing on stimulants or related drugs in the preceding six months than in 2016 (30% vs. 39%). The median length of the longest binge was 54 hours (range 48–160 hours) and those who reported recent bingeing indicated having done so on a median of two occasions (range 1–24) during that period. Of those respondents who reported that they had recently binged on stimulants or related drugs (n=30), ecstasy (77%) was the most commonly reported drug used while bingeing, followed by tobacco (73%), cannabis (70%) and alcohol (using more than five standard drinks, 53%). The proportion of people reporting recent bingeing over time is presented below (Figure 10).

Figure 10: Percentage of EDRS participants who reported recently bingeing\*, 2010–2017



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

Fifty-five per cent of the Victorian RPU sample reported lifetime NPS use. Thirty-eight per cent of the total sample reported that they had used an NPS in the past six months. The most commonly reported NPS used in the previous six months were DMT (n=23), 2C-B (n=8) and PMA (n=7). In 2017, RPU were not asked whether they had experienced any adverse effects from their use of NPS.



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

### Summary

- The median price of one ecstasy pill in 2016 was \$20, the lowest median ever recorded in the Victorian EDRS.
- There were significantly fewer reports of 'high' ecstasy purity.
- The median price reported by RPU for a point of crystal methamphetamine increased in 2017 to \$50.
- There was a significant increase in the number of people reporting that methamphetamine powder was difficult to access.
- The average purity of all seizures of methamphetamines analysed by the Victoria Police Forensic Services Department during the 2016/17 financial year was 70%, similar to the purity measured in the 2015/16 financial year (75.5%).
- Ketamine remains easy to obtain in 2017, following a significant increase in reported ease of availability between 2015 and 2016.

## 5.1 Ecstasy

### 5.1.1 Price

The median price of ecstasy reported by Victorian EDRS participants was \$20 per pill, the lowest median ever recorded in the Victorian EDRS (Table 13).

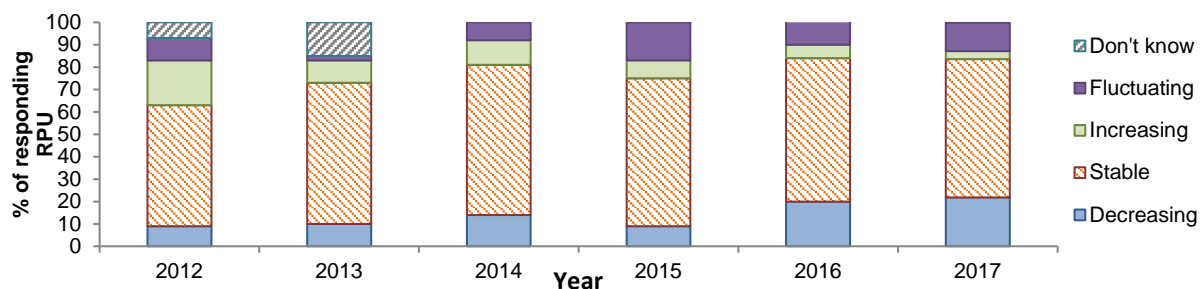
**Table 133: Price of ecstasy pill purchased by EDRS participants, 2012–2017**

Ecstasy	2012	2013	2014	2015	2016	2017
Median price per pill	\$30	\$30	\$25	\$25	\$21.5	\$20
(range)	(\$7-\$50)	(\$10-50)	(\$6-40)	(\$15-\$45)	(\$5-\$50)	(\$6-\$50)

Source: EDRS participant interviews

Consistent with previous years, most of the 2017 RPU sample reported that the price of ecstasy had remained stable in the six months prior to interview (62%) (Figure 11).

**Figure 11: Recent changes in price of ecstasy purchased by EDRS participants, 2012–2017**

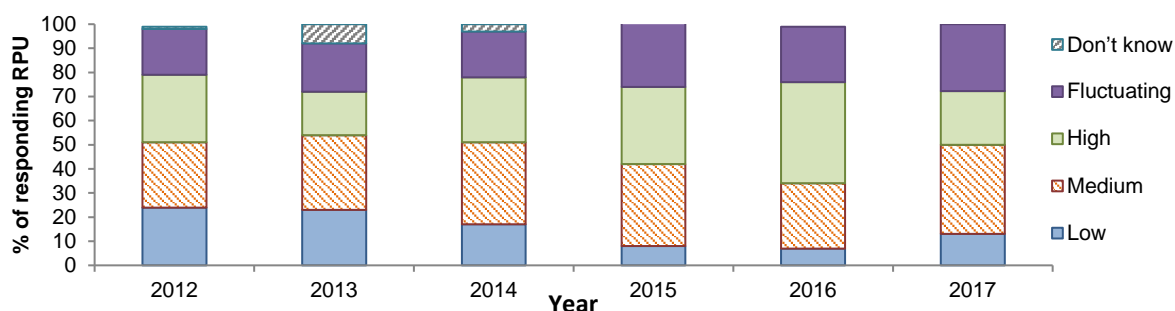


Source: EDRS participant interviews

### 5.1.2 Purity

There were significantly fewer reports of 'high' ecstasy purity in 2017 (22% vs. 42% in 2016,  $p < 0.05$ ). There were slightly more reports of 'medium' (37% vs. 34%), 'low' (13% vs. 7%) and 'fluctuating' (28% vs. 23%) purities than in 2016.

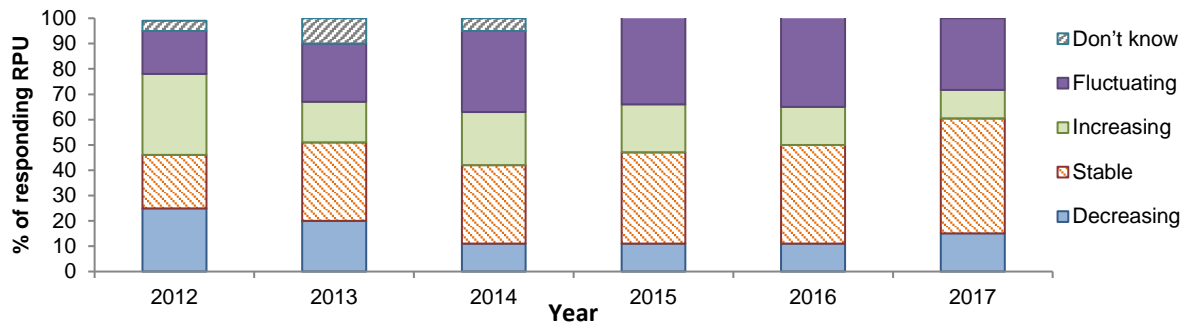
**Figure 12: RPU reports of current ecstasy purity, 2012–2017**



Source: EDRS participant interviews

As shown in Figure 13, the proportions of participants reporting changes in purity in 2017 were similar to those for 2016, 2015 and 2014. Most (45%) participants reported 'stable' purity (39% in 2016), 11% reported 'increasing' purity (15% in 2016), 28% reported fluctuating purity (36% in 2016), 15% reported decreasing purity (11% in 2016 and 2015).

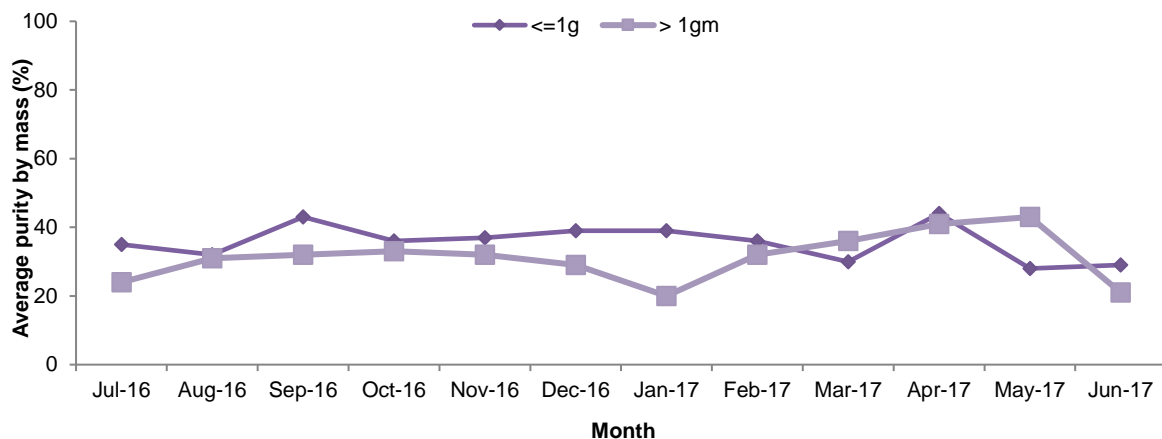
**Figure 13: RPU reports of change in purity of ecstasy in the preceding six months, 2012–2017**



Source: EDRS participant interviews

Ecstasy seizures analysed by the Victoria Police Forensic Services Department during the 2016/17 financial year averaged 33% purity (range 20%–44%) (Figure 14) – similar to the average in the 2015/16 financial year (32%).

**Figure 14: Purity of ecstasy seizures (includes MDMA, MDEA and MDA) by Victorian law enforcement, July 2016–June 2017**

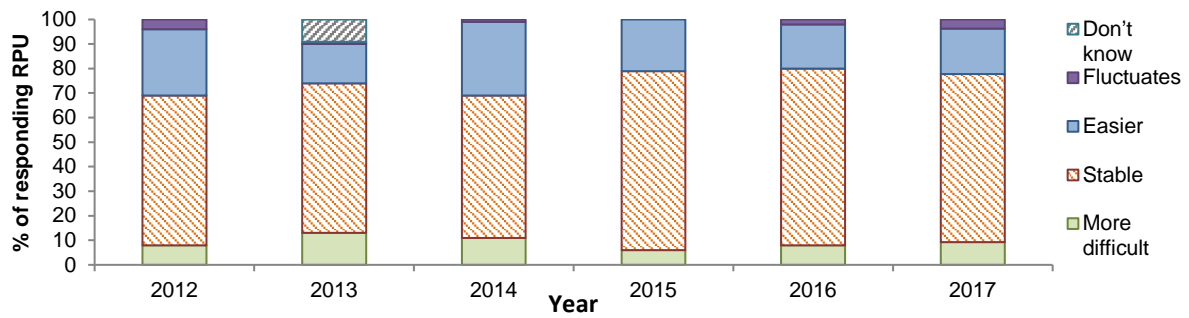


Source: Victoria Police Forensic Services Department

### 5.1.3 Availability

In 2017, the proportion of RPU who reported on current ecstasy availability was similar to that in 2016. Fifty-eight per cent of RPU reported that ecstasy was ‘very easy’ to obtain (59% in 2016), 33% reported it to be ‘easy’ to obtain (37% in 2016), and nine per cent reported it to be ‘difficult’ (4% in 2016). 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 2016. Sixty-nine per cent reported that it was ‘stable’ (72% in 2016), 19% reported that it was becoming ‘easier’ (18% in 2016), nine per cent reported it being ‘more difficult’ (8% in 2016), and four per cent reported that it ‘fluctuates’ (2% in 2016) (Figure 15).

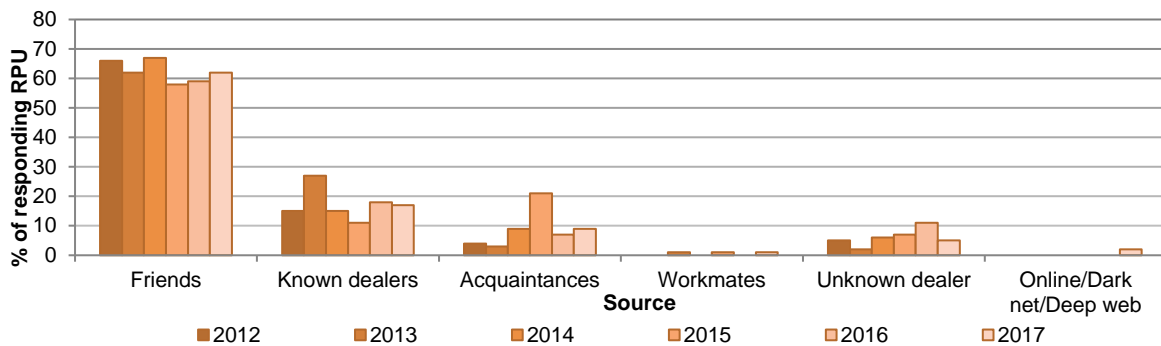
**Figure 15: RPU reports of changes in availability of ecstasy in the preceding six months, 2012–2017**



Source: EDRS participant interviews

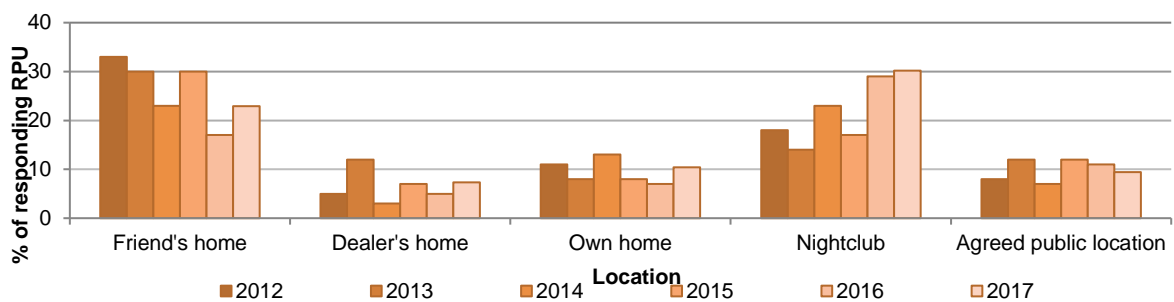
As with previous years, most RPU interviewed in 2017 were able to report how they had obtained ecstasy the last time it was used in the six months preceding their interview. Among those who had obtained ecstasy, most (65%) obtained it from friends or known dealers (18%) (Figure 16). Additionally, ecstasy was reported to be most commonly obtained at a nightclub (30% vs. 29% in 2016) or at a friend’s home (23% vs. 17% in 2016) on the last occasion (Figure 17).

**Figure 16: People from whom ecstasy was last purchased in the preceding six months, 2012–2017**



Source: EDRS participant interviews

**Figure 17: Locations where ecstasy was last purchased in the preceding six months, 2012–2017**



Source: EDRS participant interviews

## 5.2 Methamphetamine

### 5.2.1 Price

The median price reported by RPU per gram of speed was \$175, a decrease from 2016 (\$200). The median price reported for a point was \$25 (Table 14). Of the 12 RPU who commented on the recent price of speed in 2015, 83% reported that the price had remained stable in the preceding six months, with eight per cent citing fluctuating prices, and eight per cent reporting increasing price (Figure 18).

The median reported price per point of crystal methamphetamine was \$50, a slight increase from RPU reports in 2016 (\$40), but the same as 2015. The median price for a gram also increased back to 2015 prices, to \$400 (\$300 in 2016). Among participants who commented on the recent price of crystal methamphetamine, three quarters (75%) reported an increase (vs. 0% in 2016). The remaining (25%) reported that price of crystal methamphetamine was stable.

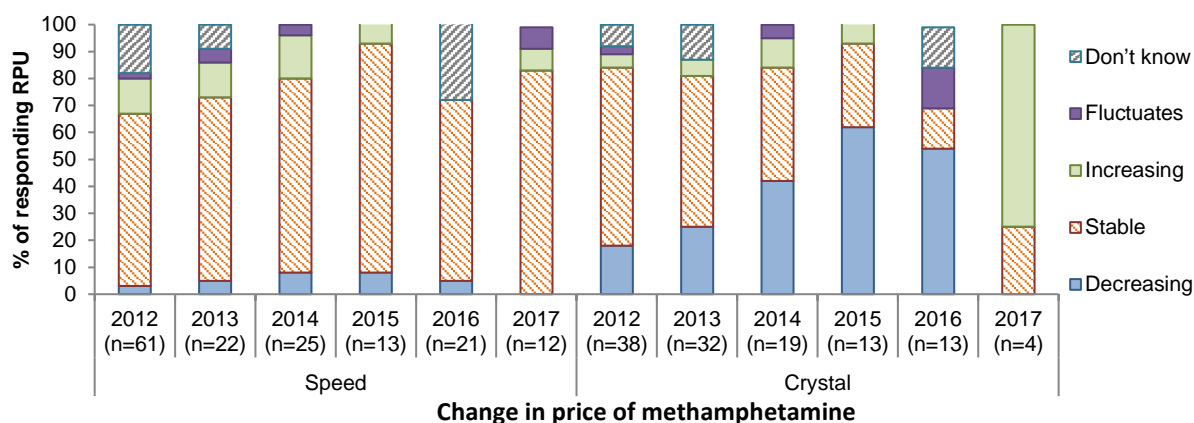
Only one participant was able to report on methamphetamine base prices, precluding further analyses.

**Table 144: Price of various methamphetamine forms purchased by RPU, 2012–2017**

Methamphetamine	2012	2013	2014	2015	2016	2017
<b>Speed – median price</b>						
Point	\$50	\$35	\$20	\$20	\$20	\$25
(range)	(\$14-\$200)	(\$20-100)	(\$20-25)	(\$10-\$50)	(\$15-\$20)	(\$15-\$50)
	n=7	n=10	n=4	n=6	n=3	n=5
Gram	\$200	\$200	\$200	\$200	\$200	\$175
(range)	(\$75-\$300)	(\$60-\$500)	(\$38-\$280)	(\$150-\$400)	(\$200-\$300)	(\$150-\$200)
	n=48	n=15	n=15	n=9	n=5	n=3
<b>Base – median price</b>						
Point		\$80	\$20	–	\$10	–
(range)	--	(\$30-\$100)				
		n=3	n=1		n=1	
Gram	\$300	\$400	\$200	–	\$100	–
(range)	(\$300-\$350)	(\$300-750)				
	n=3	n=3	n=1		n=1	
<b>Crystal – median price</b>						
Point	\$100	\$80	\$70	\$50	\$40	\$50
(range)	(\$60-\$200)	(\$40-100)	(\$20-120)	(\$50-\$100)	(\$40-\$60)	(\$30-\$50)
	n=32	n=29	n=17	n=13	n=8	n=3
Gram	\$700	\$600	\$550	\$400	\$300	\$400
(range)	(\$300-\$800)	(\$300-\$850)	(\$300-\$750)	(\$400-\$400)	(\$200-\$350)	(\$350-\$400)
	n=21	n=18	n=10	n=1	n=5	n=3

Source: EDRS participant interviews

**Figure 18: Recent changes in price of speed and crystal methamphetamine purchased by EDRS participants, 2012–2017**



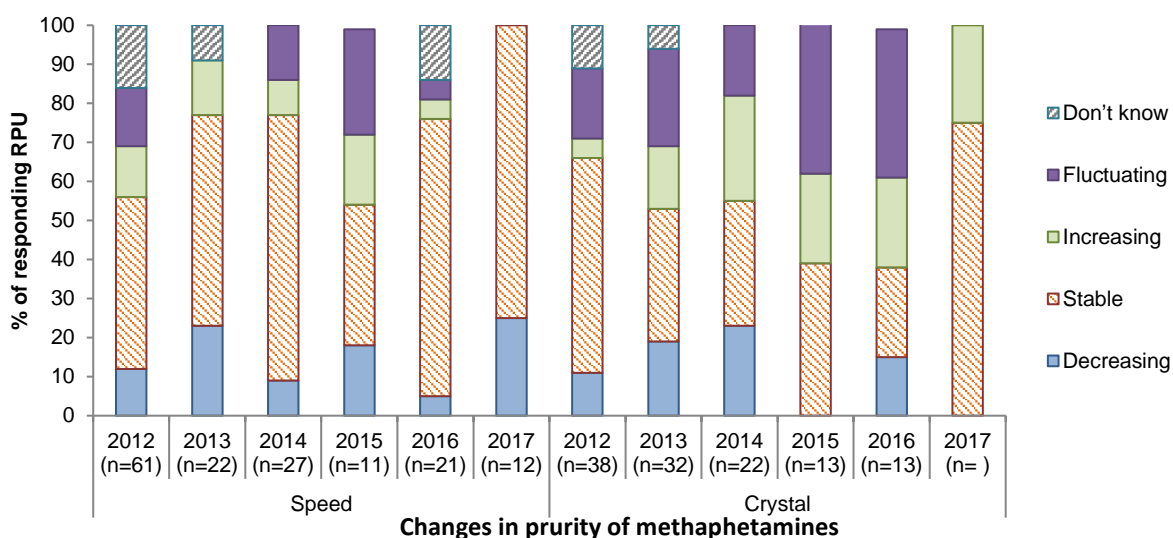
Source: EDRS participant interviews

### 5.2.2 Purity

In 2017, of the 13 participants who commented on the current purity of speed, almost half (46%) reported that it was of medium purity. Equal proportions reported that the purity was low and high (23%), while the remaining eight per cent reported the purity fluctuating. As in 2016, the majority of respondents viewed the purity of speed as stable in the preceding six months (75% vs. 71% in 2016) (Figure 19).

Participants gave mixed responses about the current purity of crystal methamphetamine. Those who were able to comment (n=4) reported purity as high (50%), medium (25%) or low (25%). The majority of respondents (75%) reported the purity of crystal methamphetamine had remained stable over the preceding six months, while the remaining quarter (25%) reported that purity had increased.

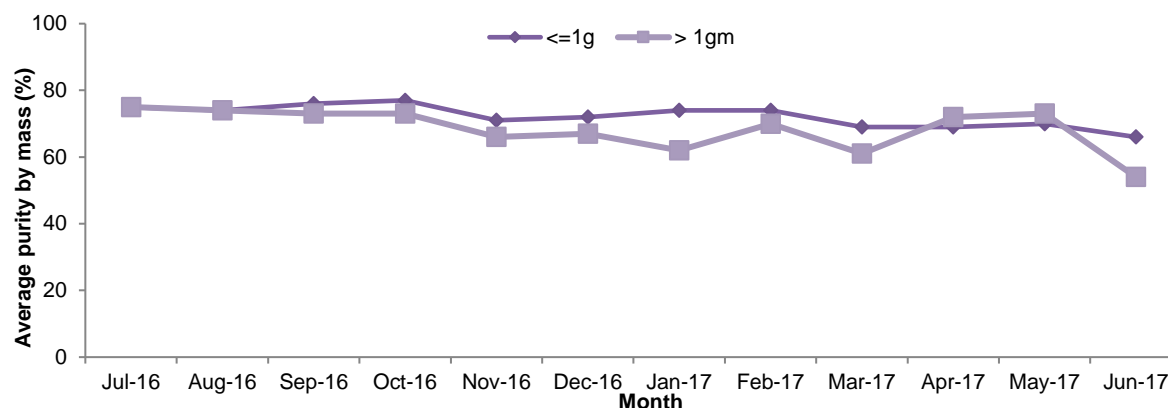
**Figure 19: Reports of change in purity of speed and crystal methamphetamine in the preceding six months among EDRS participants, 2012–2017**



Source: EDRS participant interviews

The average purity of all seizures of methamphetamines analysed by the Victoria Police Forensic Services Department during the 2016/17 financial year was 70% (range 54%–77%) (Figure 20), lower than the average purity measured in the 2015/16 financial year (75.5%).

**Figure 20: Average purity of methamphetamine seizures by Victorian law enforcement, July 2016–June 2017**



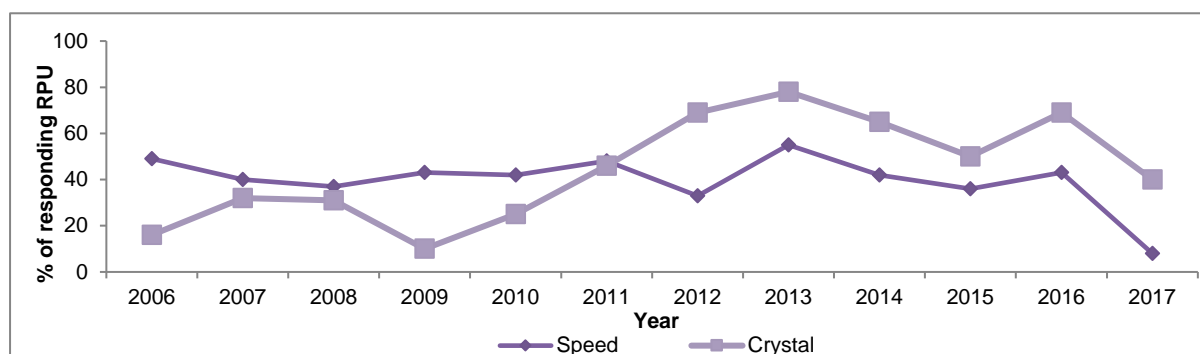
Source: Victoria Police Forensic Services Department

### 5.2.3 Availability

In 2017, 31% of RPU who were able to comment on the current availability of speed reported that it was either ‘easy’ or ‘very easy’ to obtain, a significant decrease from 2016 (86%,  $p < 0.05$ ). A significantly greater number (62%) reported that it was ‘difficult’ to obtain speed (vs. 14% in 2016,  $p < 0.05$ ) (Figure 21). The majority (67%) of responding RPU reported that the availability of speed over the preceding six months remained stable (vs. 80% in 2016). The remaining 33% reported that it was more difficult to obtain speed.

Participants who reported on the current availability of crystal methamphetamine in 2017 ( $n=5$ ) gave mixed responses. Equal number of respondents (40%) stated crystal methamphetamine was ‘very easy’ or ‘difficult’ to obtain in the preceding six months (Figure 21). Respondents also provided diverse answers regarding the availability of crystal methamphetamine over the preceding six months. Half (50%) reported that it had become ‘more difficult’ to obtain, while 25% reported it had remained ‘stable’ or ‘easier’.

**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, 2006–2017**



Source: EDRS participant interviews

Similar to 2016, most participants reported last purchasing speed from friends (67% vs. 76%). Known dealers (17%) and unknown dealers (17%) were the other reported speed sources. Nightclubs (33%), followed by an agreed public location, were the most frequently reported venues for obtaining speed. In relation to crystal methamphetamine, in 2017, RPU most commonly reported last purchasing from friends (60%), a known dealer (20%) or an unknown dealer (20%) and obtaining it at their friend’s home (40%).

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

## 5.3 Cocaine

### 5.3.1 Price

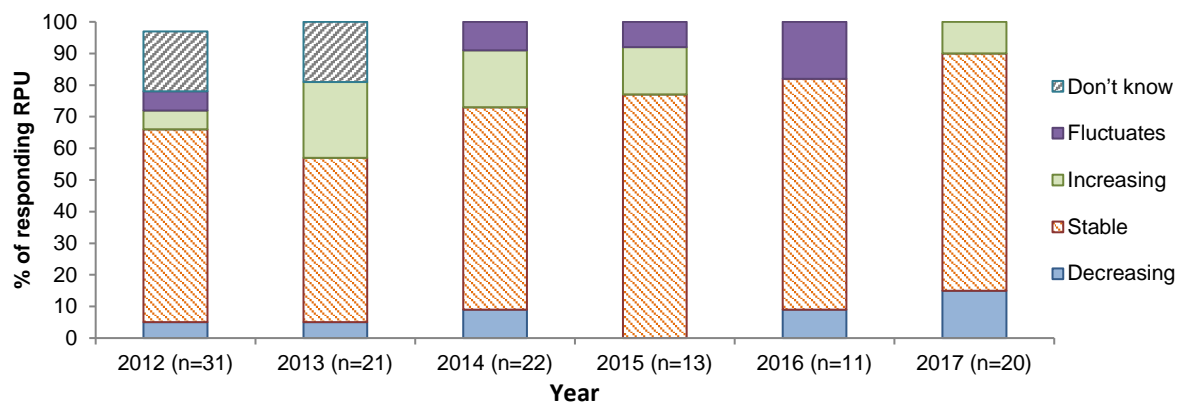
In 2017, the median reported price of cocaine was \$350 per gram, an increase against 2013–2016 (Table 15). Of the RPU able to comment on the change in price of cocaine, similar proportions in 2016 and 2017 reported it as stable (75% vs. 73% respectively) (Figure 22).

**Table 15: Price of cocaine purchased by EDRS participants, 2012–2017**

Cocaine	2012	2013	2014	2015	2016	2017
Median price per gram	\$350	\$300	\$300	\$300	\$300	\$350
(range)	(\$250-\$400) n=27	(\$150-\$400) n=19	(\$100-\$450) n=20	(\$280-\$400) n=11	(\$250-\$350) n=13	(\$250-\$400) n=16

Source: EDRS participant interviews

**Figure 22: Recent changes in price of cocaine purchased by EDRS participants, 2012–2017**

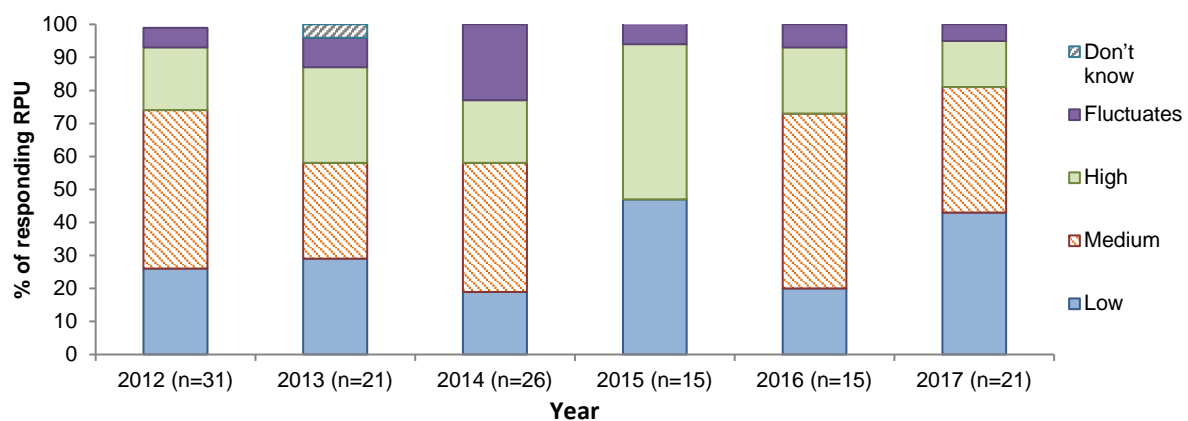


Source: EDRS participant interviews

### 5.3.2 Purity

Of the 2017 RPU sample who commented (n=21), respondents perceived current cocaine purity to be either low (43%) or medium (38%) (Figure 23). Almost three quarters (71%) of responding RPU reported that cocaine purity remained stable in the six months preceding their interview, followed by 19% of RPU who reported that it was decreasing. Only 5% reported that purity was increasing (Figure 24).

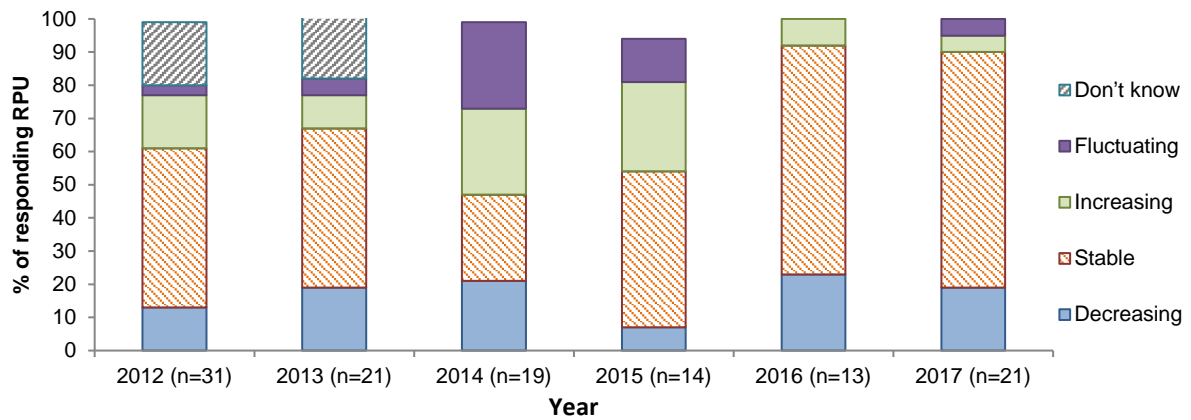
**Figure 23: RPU reports of current cocaine purity, 2012–2017**



Source: EDRS participant interviews



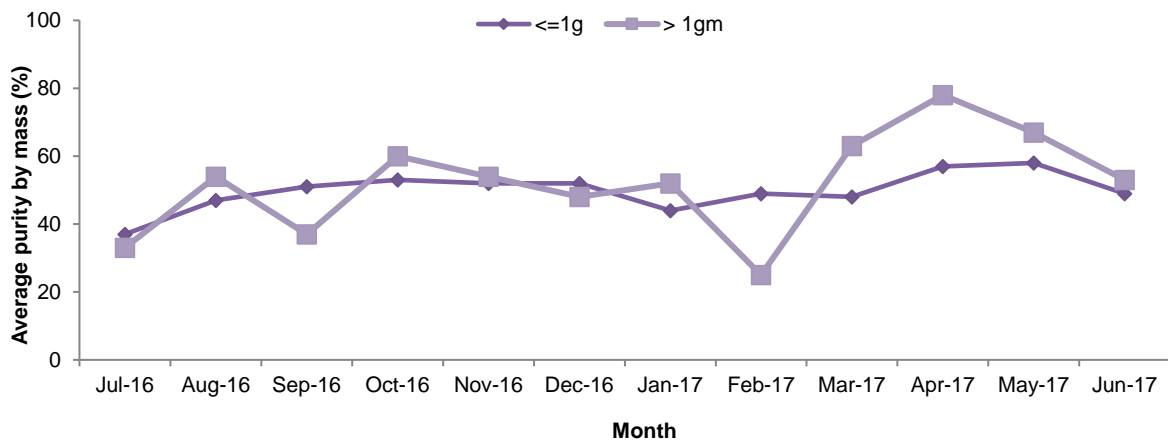
**Figure 24: RPU reports of changes in cocaine purity in the past six months, 2012–2017**



Source: EDRS participant interviews

Cocaine seizures analysed by the Victoria Police Forensic Services Department during the 2016/17 financial year averaged 51% (range 25%–78%) (Figure 25), slightly higher than the average in the previous financial year (48%).

**Figure 25: Average purity of cocaine seizures by Victorian law enforcement, July 2016–June 2017**

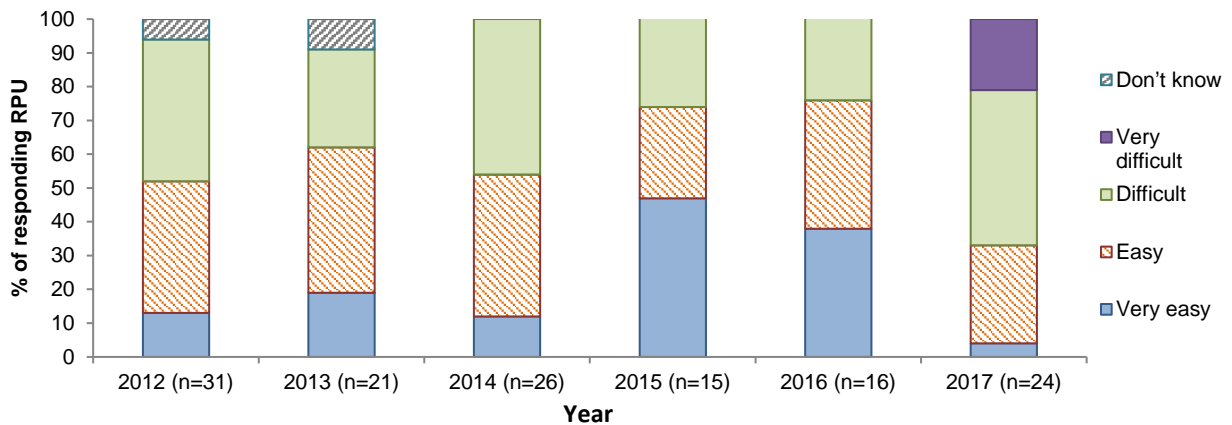


Source: Victoria Police Forensic Services Department

### 5.3.3 Availability

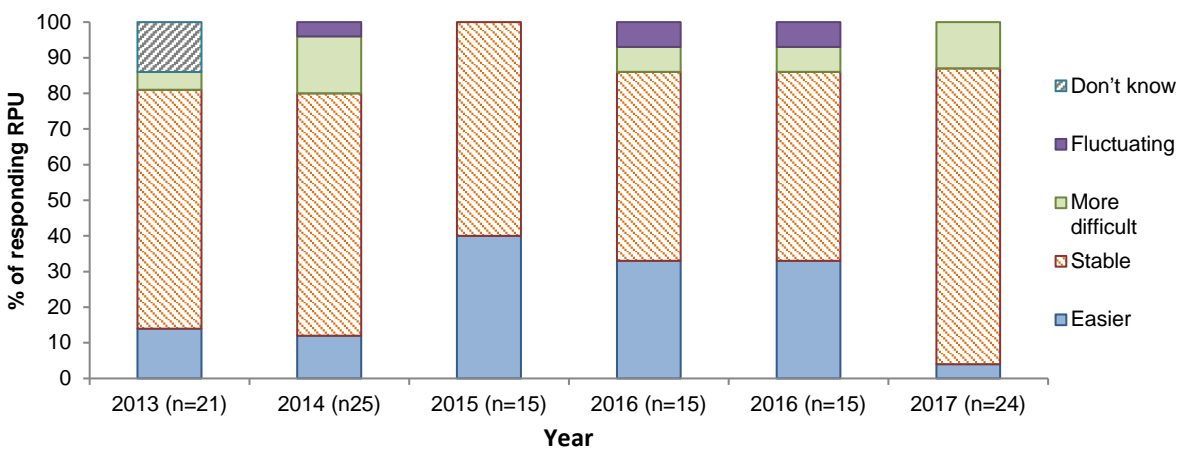
In 2017, RPU who were able to comment noted that cocaine was either ‘difficult’ (46% vs 25% in 2016) or ‘very difficult’ (21% vs 0% in 2016) to obtain (Figure 26). These were first reports of cocaine being ‘very difficult’ to obtain since 2011. Consistent with 2016, most RPU reported that the availability of cocaine remained stable (83% vs. 53% in 2016); 13% reported that it was more difficult to obtain (Figure 27).

**Figure 26: Current availability of cocaine, 2012–2017**



Source: EDRS participant interviews

**Figure 27: Changes in cocaine availability in the preceding six months, 2012–2017**



Source: EDRS participant interviews

As in previous years, RPU who commented on the last person from whom they purchased cocaine in 2017 (n=21) reported obtaining it mainly from friends (76% vs. 73% in 2016) or a known dealer (14% vs. 20% in 2016). The most common locations where cocaine was purchased were, equally, at a 'nightclub' or 'private party' (24%) followed by 'friend's home' (19%).

## 5.4 Ketamine

### 5.4.1 Price

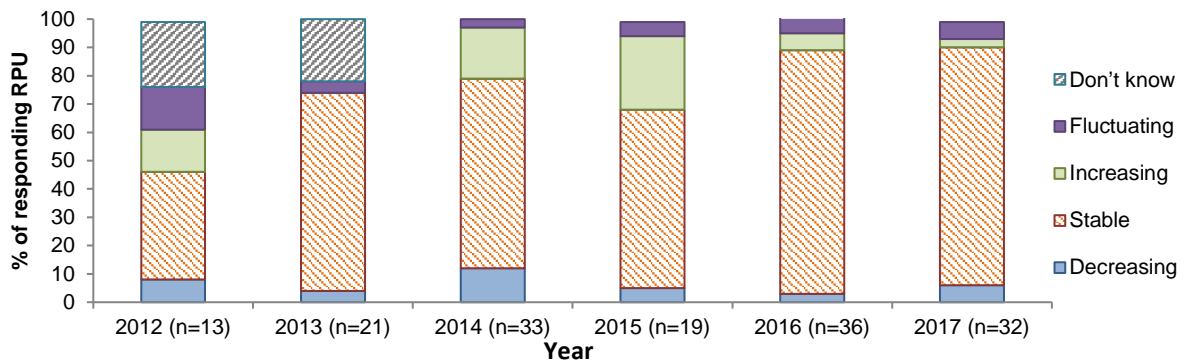
The median reported price of ketamine increased slightly in 2017 to \$200 per gram after dipping to \$180 in 2016 (Table 16). Most (84%) participants reported that the price had remained 'stable' in the preceding six months, similar to 2016 (86%). Only 3% reported that it was 'increasing' (vs. 6% in 2016) (Figure 28).

**Table 16: Price of ketamine purchased by RPU, 2012–2017**

Ketamine	2012	2013	2014	2015	2016	2017
Median price per gram	\$200	\$200	\$200	\$200	\$180	\$200
(range)	(\$150-\$300)	(\$30-\$300)	(\$100-\$400)	(\$150-\$230)	(\$50-\$320)	(\$150-\$250)
	n=12	n=21	n=25	n=10	n=15	n=11

Source: EDRS participant interviews

**Figure 28: Recent changes in price of ketamine purchased by RPU, 2012–2017**

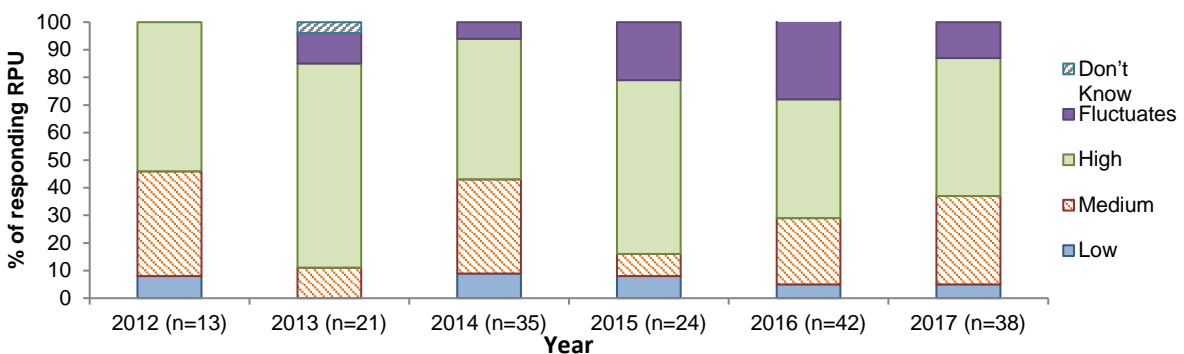


Source: EDRS participant interviews

### 5.4.2 Purity

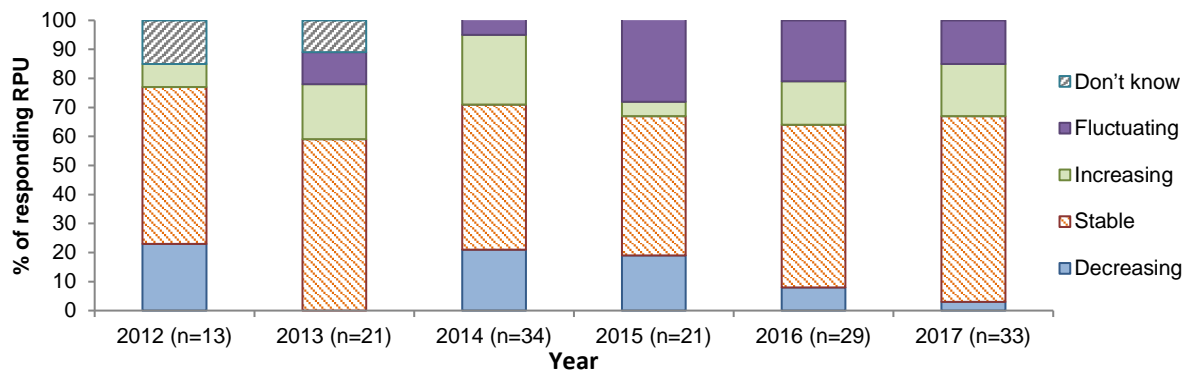
The majority (50%) of responding RPU perceived current ketamine purity to be high (vs. 43% in 2016) whilst 32% perceived that it was medium, an increase on 2016 (24%). Fewer people reported the purity of ketamine to be fluctuating (13% vs 29% in 2016) (Figure 29). Responses for change in ketamine purity this year were comparable to 2016. Most participants noted that the price of ketamine was 'stable' (64% vs. 56% in 2016). One fifth (18%) reported the purity to be increasing (vs. 15% in 2016), while 15% reported that it was 'fluctuating' (21% in 2016) (Figure 30).

**Figure 29: RPU reports of current purity of ketamine, 2012–2017**



Source: EDRS participant interviews

**Figure 30: RPU reports of recent change in ketamine purity, 2012–2017**



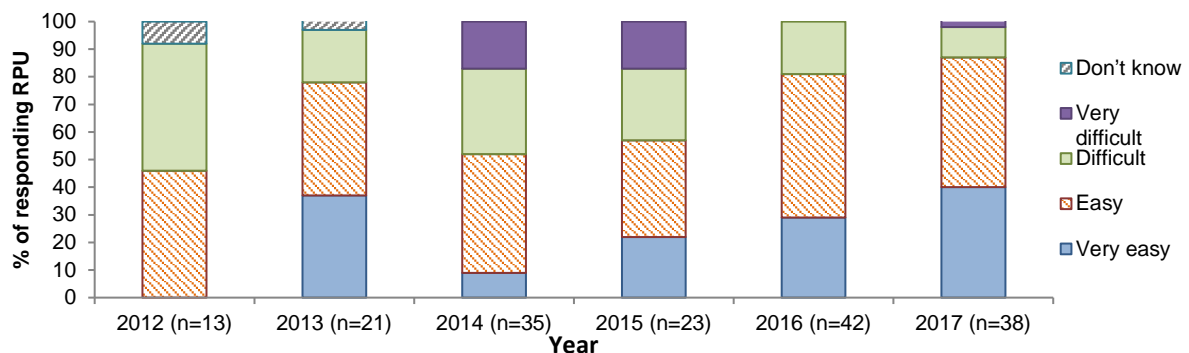
Source: EDRS participant interviews

### 5.4.3 Availability

Only 19% of participants reported that ketamine was difficult to obtain (vs. 26% in 2016) and there were no reports of ketamine being ‘very difficult’ to obtain (vs. 17% in 2016). Ketamine remained easily available in 2017, with 87% (vs. 81% in 2016) of the RPU who were able to comment (n=38) reporting ‘easy’ (47%) or ‘very easy’ (40%) access. Only 11% reported that it was ‘difficult’ to obtain (vs. 19% in 2016) and 3% reported it was ‘very difficult’ (vs. 0% in 2016) (Figure 31).

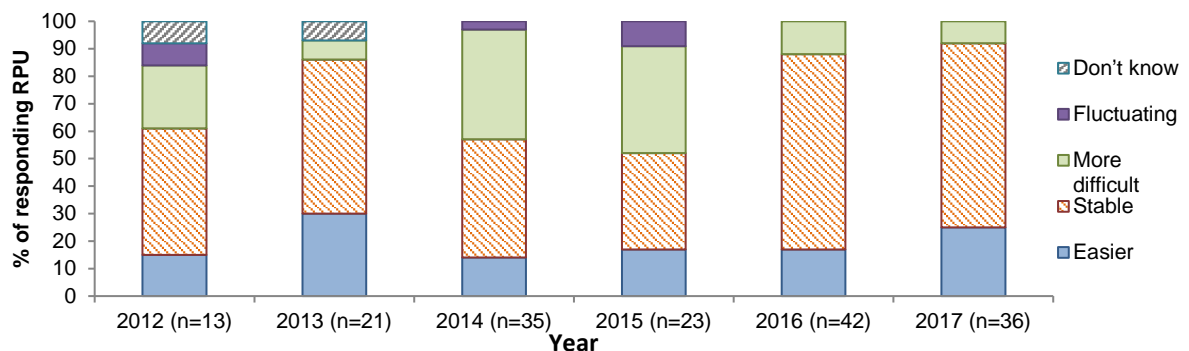
A similar proportion of responding RPU reported that ketamine availability was ‘stable’ in 2017 (67% vs. 71% in 2016) while 25% reported it had become ‘easier’ to access (vs. 17% in 2016). A similar proportion reported ketamine had become ‘more difficult’ to obtain (8% vs. 12% in 2016) (Figure 32).

**Figure 31: RPU reports of current ketamine availability, 2012–2017**



Source: EDRS participant interviews

**Figure 32: Changes in availability of ketamine over the past six months, 2012–2017**



Source: EDRS participant interviews

Among RPU who commented about the last person from whom they purchased ketamine in 2017 (n=38), most reported obtaining it from friends (58 % vs. 61% in 2016). The most common locations where ketamine was recently purchased were a nightclub (32%) followed by a friend's home (24%).

## 5.5 GHB

### 5.5.1 Price

No RPU were able to comment.

**Table 17: Price of GHB purchased by RPU, 2012–2017**

GHB	2012	2013	2014	2015	2016	2017
Median price per ml	\$3	\$5	\$3	\$2.5	\$2	-
(range)	(\$3-\$4)	(\$2-\$12)	(\$2-\$4)	(\$2-\$3)	(\$1-\$3)	-
	n=7	n=5	n=6	n=2	n=4	(n=0)

Source: EDRS participant interviews

### 5.5.2 Purity

The majority (75%) of responding RPU (n=4) reported the current purity of GHB to be medium, with 25% stating it was high. Insufficient RPU provided comment on GHB purity in 2016 for analysis to occur. All respondents (n=2) reported that GHB purity had remained stable over the preceding six months.

### 5.5.3 Availability

Responses regarding the availability of GHB were mixed, with half reporting that GHB was very easy to access, and the remaining half reporting it was difficult to access. Most (75%) reported that GHB availability had been stable over the preceding 6 months, with the remaining 25% reporting that it had become more difficult to access.

## 5.6 LSD

### 5.6.1 Price

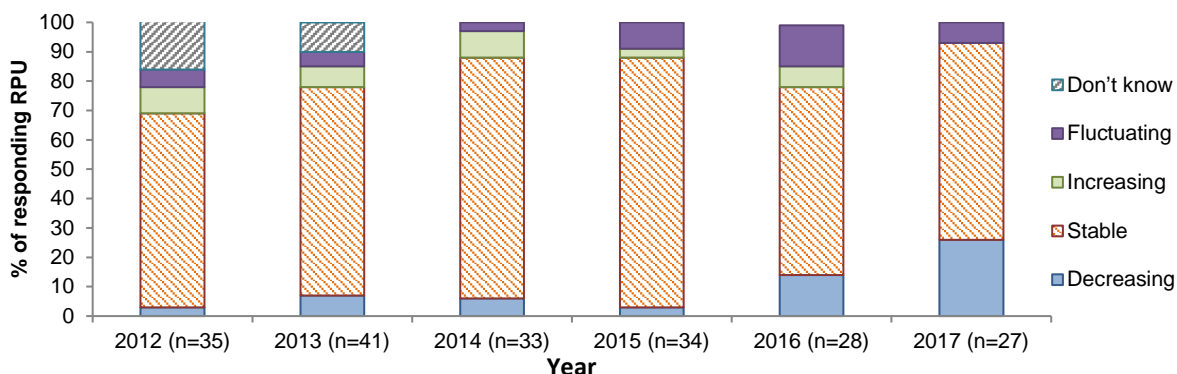
The median reported price of LSD decreased to \$15 in 2017 (vs. \$20 in 2016 and \$15 in 2012–2015) (Table 18). Most (67%, vs. 64% in 2016) RPU reported that the price of LSD had remained stable in the preceding six months, with a slightly larger proportion (26% vs. 14% in 2016) reporting that it was decreasing (Figure 33).

**Table 158: Prices of LSD purchased by EDRS participants, 2012–2017**

LSD	2012	2013	2014	2015	2016	2017
Median price per tab	\$15	\$15	\$15	\$15	\$20	\$15
(range)	(\$10-\$50)	(\$10-\$30)	(\$5-\$20)	(\$10-\$30)	(\$7-\$45)	(\$3-\$25)

Source: EDRS participant interviews

**Figure 33: Recent changes in price of LSD purchased by EDRS participants, 2012–2017**

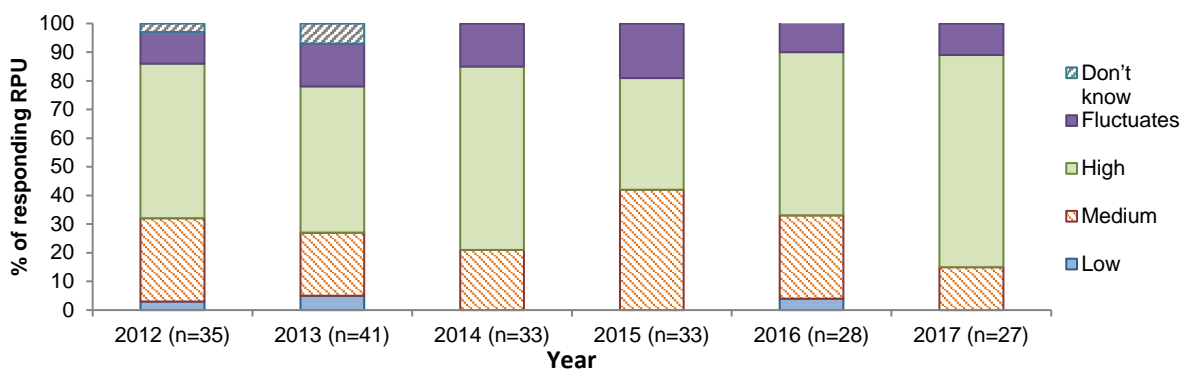


Source: EDRS participant interviews

### 5.6.2 Purity

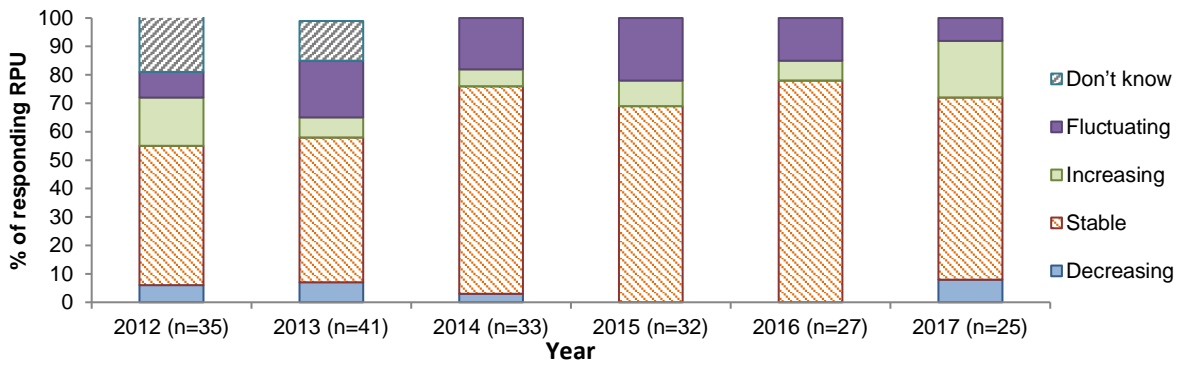
Consistent with previous years, most recent LSD users reported the purity of LSD as high (74% vs. 57% in 2016) (Figure 34) and stable (64%) over the six months preceding interview (Figure 35).

**Figure 34: RPU reports of purity of LSD in the preceding six months, 2012–2017**



Source: EDRS participant interviews

**Figure 35: RPU reports of change in purity of LSD in the preceding six months, 2012–2017**

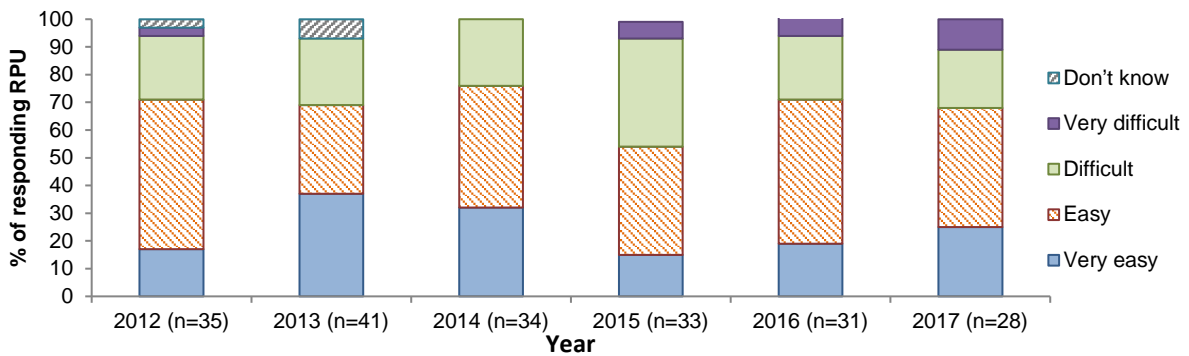


Source: EDRS participant interviews

### 5.6.3 Availability

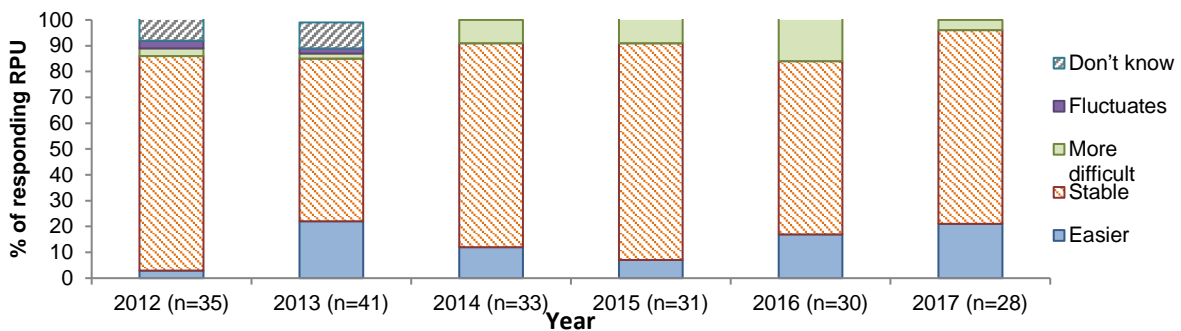
In 2017, 68% of RPU reported that LSD was either ‘easy’ or ‘very easy’ to obtain in the six months preceding their interview (vs. 71% in 2016) (Figure 36). A larger proportion of responding RPU reported that LSD availability remained ‘stable’ (75% vs. 67% in 2016), with fewer participants reporting that it was ‘more difficult’ to obtain (4% vs. 17% 2016) (Figure 37).

**Figure 36: Current LSD availability, 2012–2017**



Source: EDRS participant interviews

**Figure 37: Changes in availability of LSD, 2012–2017**



Source: EDRS participant interviews

Similar to 2016, the last person from whom 2017 RPU purchased LSD was most often a friend (64%). The most common locations for the last purchase of LSD were a ‘friend’s home’ (32%) followed by an ‘agreed public location’ (25%).



## 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 per gram in 2017. The median price for an ounce of hydroponic cannabis increased slightly to \$240. The median price of a gram of bush cannabis (\$15 in 2017) increased slightly from 2016 (\$12.50) (Table 19).

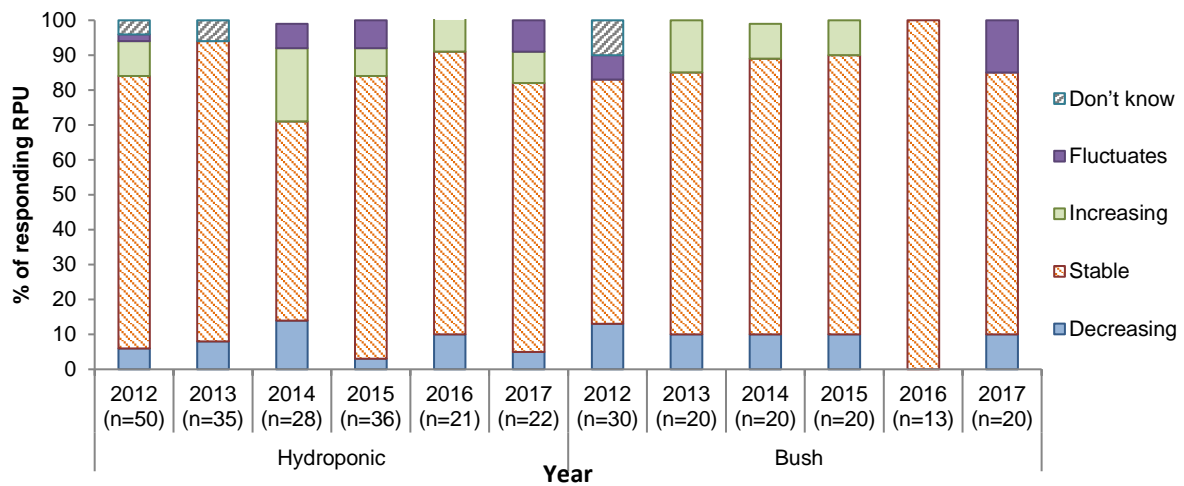
**Table 19: Price of cannabis purchased by EDRS participants, 2012–2017**

Cannabis	2012 (n=100)	2013 (n=100)	2014 (n=100)	2015 (n=100)	2016 (n=100)	2017 (n=100)
<b>Median price (range)</b>						
Hydroponic						
Gram	\$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	\$15 (\$10-\$25) n=14
Ounce	\$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	\$240 (\$200-\$300) n=11
Bush						
Gram	\$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	\$15 (\$5-\$30) n=12
Ounce	\$240 (\$100-\$300) n=17	\$200 n=2	\$220 (\$180-\$300) n=10	\$210 (\$150-\$250) n=8	- n=0	\$200 (\$120-\$250) n=8

Source: EDRS participant interviews

Prices of cannabis were commonly reported as being stable in the preceding six months by the majority of both recent hydroponic cannabis users (n=22) and recent bush cannabis users (n=13) (77% and 75% respectively) (Figure 38).

**Figure 38: Recent changes in price of hydroponic and bush cannabis purchased by EDRS participants, 2012–2017**

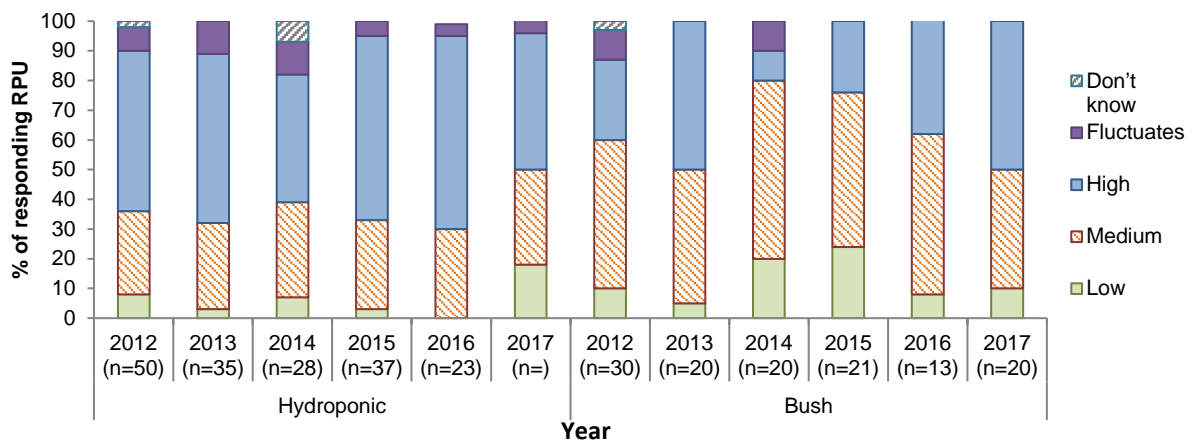


Source: EDRS participant interviews

### 5.7.2 Potency

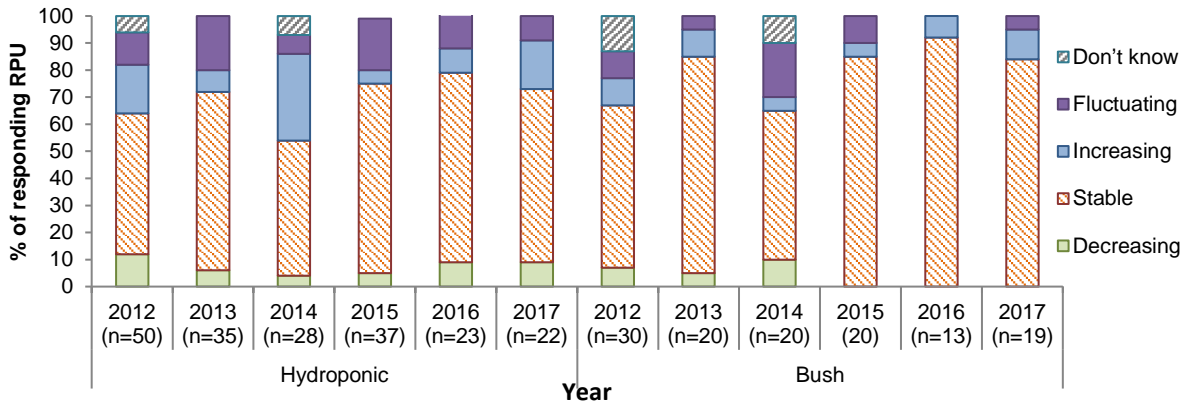
In 2017, potency was typically reported as being medium or high for both hydroponic and bush cannabis (77% and 90% respectively) (Figure 39). The majority (64%) of participants reported hydroponic cannabis potency to be stable in the preceding six months, as did most (84%) of the participants who were able to comment on the potency of bush cannabis, similar to 2016 (Figure 40).

**Figure 39: Reports of current hydroponic and bush cannabis potency by RPU, 2012–2017**



Source: EDRS participant interviews

**Figure 40: Reports of changes in hydroponic and bush cannabis potency, 2012–2017**

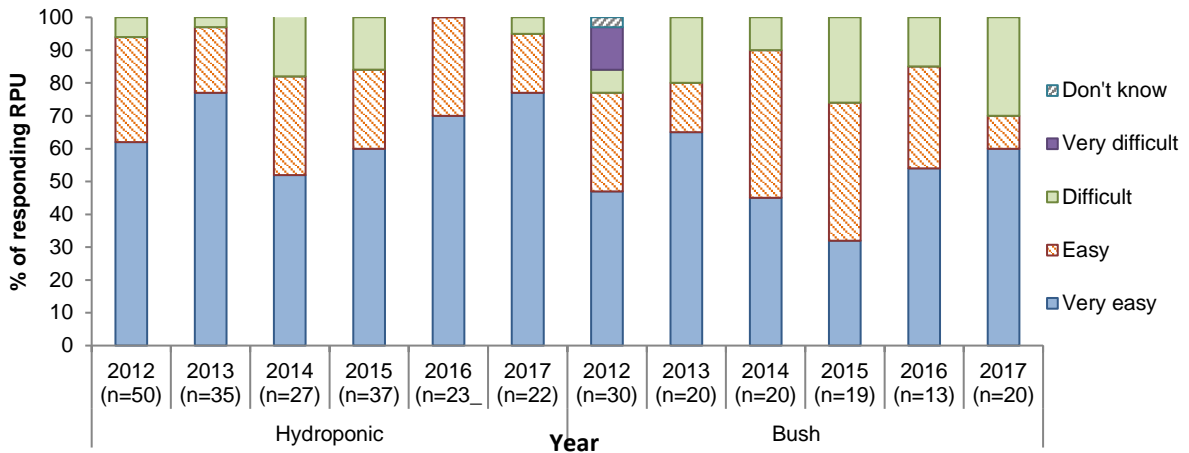


Source: EDRS participant interviews

### 5.7.3 Availability

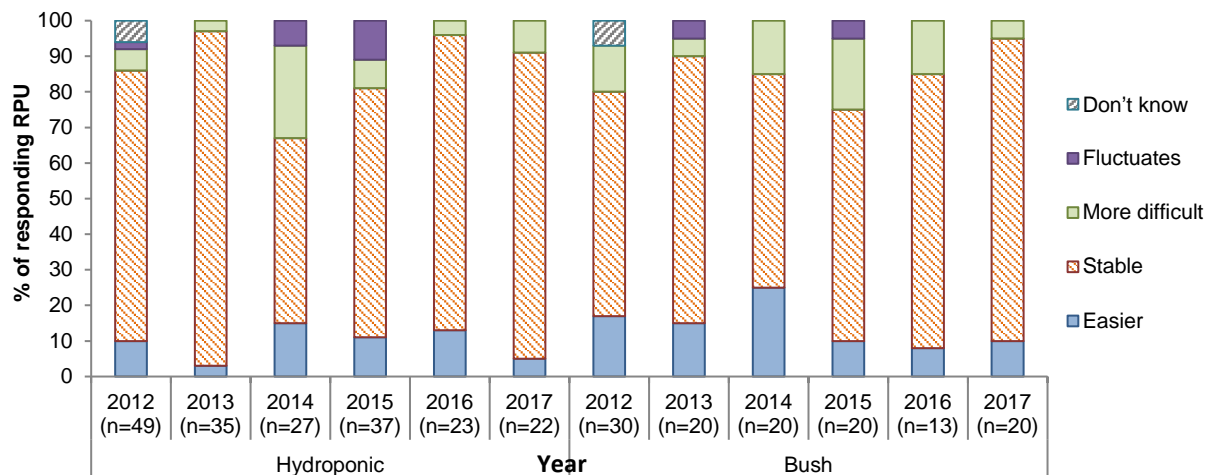
In 2017, of the participants who were able to comment, the majority reported both hydroponic and bush cannabis as either ‘easy’ or ‘very easy’ to obtain (95% and 70% respectively) (Figure 41). Typically, both hydroponic and bush cannabis availability was reported to be stable in the preceding six months (86% and 85% respectively) (Figure 42).

**Figure 41: Current availability of hydroponic and bush cannabis, 2012–2017**



Source: EDRS participant interviews

**Figure 42: Recent changes in availability of hydroponic and bush cannabis, 2012–2017**



Source: EDRS participant interviews

Consistent with past years, most RPU reported that the last person they purchased cannabis from was a friend (50% for hydroponic and 65% for bush cannabis) or known dealer (41% for hydroponic and 20% for bush cannabis). Most of those who commented on the last location where they purchased cannabis reported obtaining it from a ‘friend’s home’ (27% for hydroponic and 35% for bush) or a ‘dealer’s home’ (27% for hydroponic and 35% for bush).

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

### Summary

- Of those who had ever experienced a stimulant overdose, 20 participants (87%) reported experiencing an overdose after taking a stimulant drug in the preceding 12 months, most commonly after taking ecstasy.
- There was a significant decrease in the number of reporting an overdose after taking a depressant drug across their lifetime.
- Twelve participants (63%) reported experiencing an overdose after taking a depressant drug in the preceding 12 months, most commonly after consuming alcohol.
- The type of health service participants most commonly reported using in the six months preceding interview was a general practitioner (83%).
- Nineteen participants reported they had accessed a health or medical service in relation to their ERD use in the preceding six months.
- In 2017, there was a significant increase from 2016 in the number of people reporting experiencing both anxiety and depression in the preceding six months.

## 6.1 Overdose and drug-related fatalities

Since 2008, the EDRS interview schedule has included questions about drug overdose, split into stimulant drug overdose and depressant drug overdose.

In 2017, 23 participants reported that they had overdosed on any stimulant drug(s) at some point in their lifetime (vs. 32 in 2016) on a median of two occasions (range 1–20 times). Of those who had ever overdosed on stimulants, 20 participants (87%) reported having done so in the preceding 12 months, a non-significant increase since 2016 (78%). Participants noted ecstasy (42% vs 68% in 2016), crystal methamphetamine (16% vs 9% in 2016) and MDA, speed and ketamine (11% each) as the main drugs associated with their most recent stimulant overdose, which reportedly occurred most commonly at a nightclub (38% vs 55% in 2016) followed by at 'home' (24%) and a friend's home (14%). The most commonly reported symptoms were vomiting (24%), tremors, increased body temperature and extreme anxiety (10% respectively). There was a significant decrease in the number of RPU reporting that there was a sober person present to assist them during their last stimulant overdose (24% vs. 64% in 2016,  $p < 0.05$ ). Ten participants (48%) reported receiving treatment during or as a result of their most recent overdose, with most (80%) of these participants stating they were monitored or watched by a friend.

Significantly fewer people reported ever having experienced an overdose after taking a depressant drug (including alcohol), with 19 (vs. 43 in 2016,  $p < 0.05$ ) participants reporting that they had ever overdosed on a depressant drug on a median of four occasions (range 1–150). Of those who reported a depressant overdose, 12 (63%) had experienced this in the preceding 12 months. Most (58% vs 73% in 2016) attributed their most recent depressant overdose (occurring in the preceding 12 months) to alcohol, followed by GHB or ketamine (17% each). The main symptoms experienced were losing consciousness (67%) and vomiting (25%). The most common location of the most recent depressant overdose was at a friend's home (33%), followed by a live music event/concert/festival (25%), a pub or at home (both 17%). Four participants (80%) reported being monitored/watched by friends at the time.

## 6.2 Help-seeking behaviour & health service access

Nineteen per cent of the 2017 sample reported they had used a health or medical service in relation to their drug use in the six months preceding interview (the same as in 2016). An additional 20% reported thinking about using a health service in relation to their drug use, but did not do so.

EDRS participants were also asked about the health services they had accessed in the preceding six months. Eighty participants reported accessing at least one health service. Comparable to 2016, the health services most commonly accessed were general practitioners (83% vs 88% in 2016) followed by dentists (33% vs 37% in 2016).

## 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 2016/17 financial year, 61,030 courses of treatment were delivered to 31,679 clients<sup>2</sup>, compared to 58,481 courses of treatment delivered to 31,302 clients in the 2015/16 financial year<sup>2</sup>. Of the courses of treatment delivered, approximately 21% were delivered to approximately 19% of clients for amphetamine problems, making amphetamines the second most prevalent main presenting drug problem after alcohol (29%). Only 0.25% of the courses of treatment were delivered to 0.32% of clients for ecstasy (ADIS database, Victorian Department of Health, unpublished data).

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<sup>2</sup> The reduction in Victorian Alcohol and Other Drug Treatment activity is associated with service system reform during 2014-15.

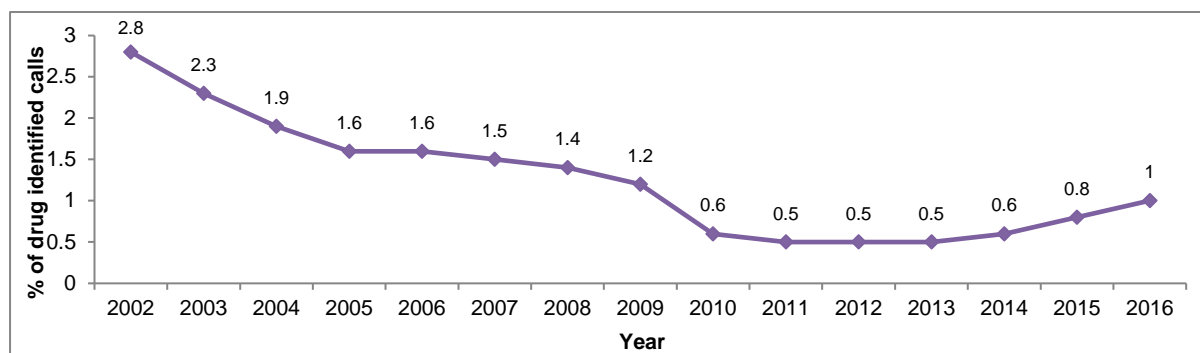
### 6.3.2 DirectLine

DirectLine is a 24-hour specialist telephone service in Victoria (operated by Turning Point) 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 2002–2016. Amphetamine data has not been included in this report due to the introduction of the 'Ice Advice Line', to which methamphetamine-related calls have been directed since its launch in early 2015.

#### Ecstasy

During 2016, DirectLine received 255 calls in which ecstasy was identified as a drug of concern; representing 1% 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, while remaining low, has doubled since 2013 (Figure 43).

**Figure 43: Proportion of calls to DirectLine in which ecstasy was identified as drug of concern, Victoria 2002–2016**

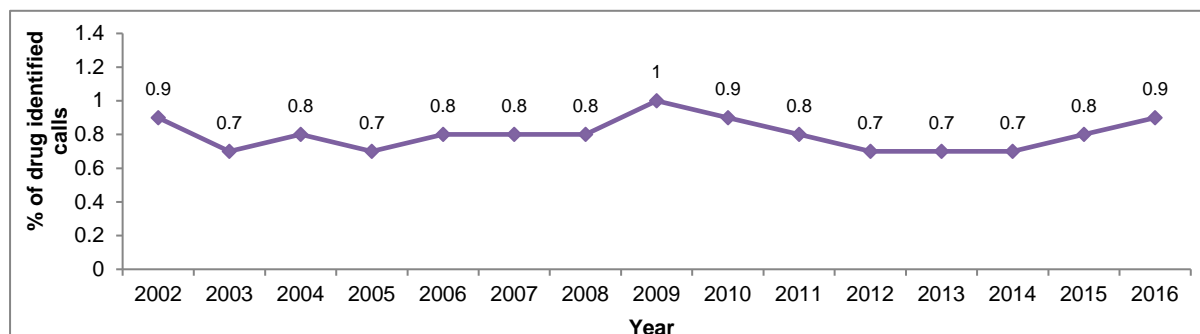


Source: DirectLine, Turning Point (unpublished data)

#### Cocaine

During 2016, DirectLine received 238 calls in which cocaine was identified as a drug of concern, which was 0.9% of all drug-identified calls to DirectLine in that year (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, 2002–2016**

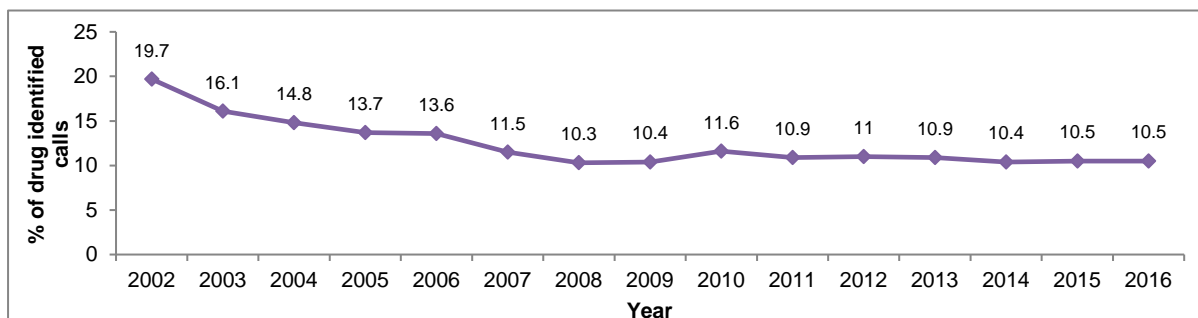


Source: DirectLine, Turning Point (unpublished data)

## Cannabis

During 2016, DirectLine received 2,706 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 2002 to 2008, and has plateaued thereafter (Figure 46).

**Figure 45: Proportion of calls to DirectLine in which cannabis was identified as a drug of concern, 2002–2016**



Source: DirectLine, Turning Point (unpublished data)

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

Turning Point 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 2013 and December 2016 are presented in this report. The lower numbers of recorded attendances between October and December 2014 was affected by industrial action, when no data were recorded.

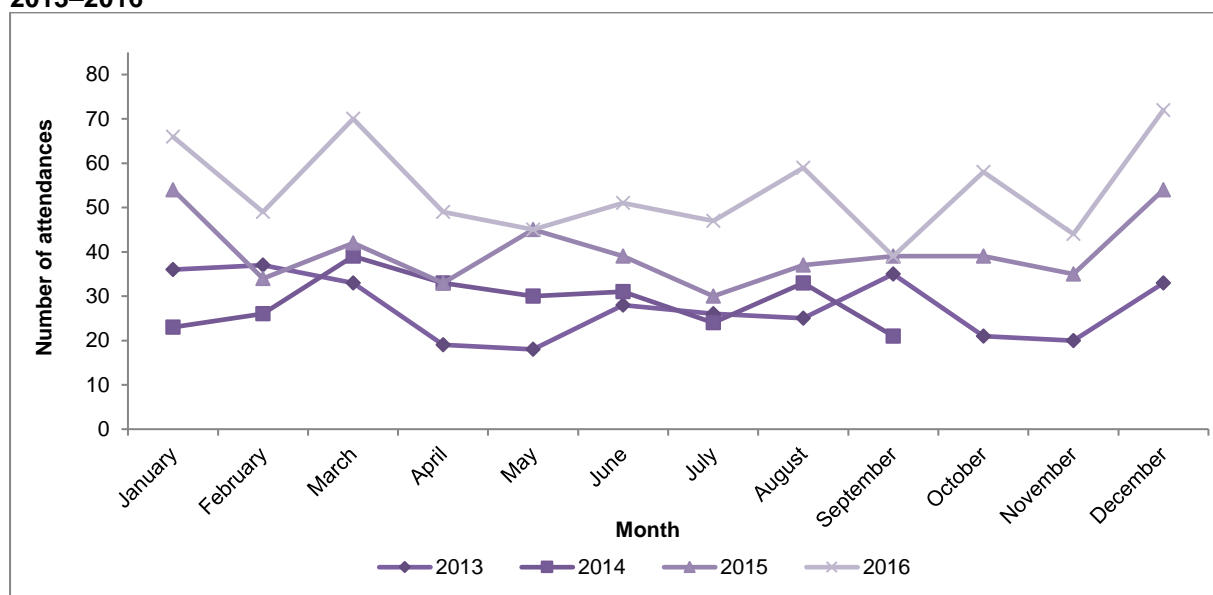
#### Ecstasy

Ambulance attendances in metropolitan Melbourne at which ecstasy use was recorded ranged between 18 and 72 per month during 2013–2016. 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. In 2015 there were 481 attendances and 649 in 2016, the highest figure ever recorded in the Victorian EDRS (Figure 46)<sup>3</sup>. The median age of these patients who were attended to by an ambulance in metropolitan Victoria in 2016 was 22 years (range 14–62). The average number of ambulance attendances recorded in regional Victoria relating to ecstasy use in 2016 was per month was 12 (Turning Point, unpublished data).

<sup>3</sup> Data for October-December 2014 are missing due to industrial action.



**Figure 46: Number of ecstasy-related events attended by Ambulance Victoria, Melbourne, 2013–2016**



Source: Ambulance Victoria and Turning Point

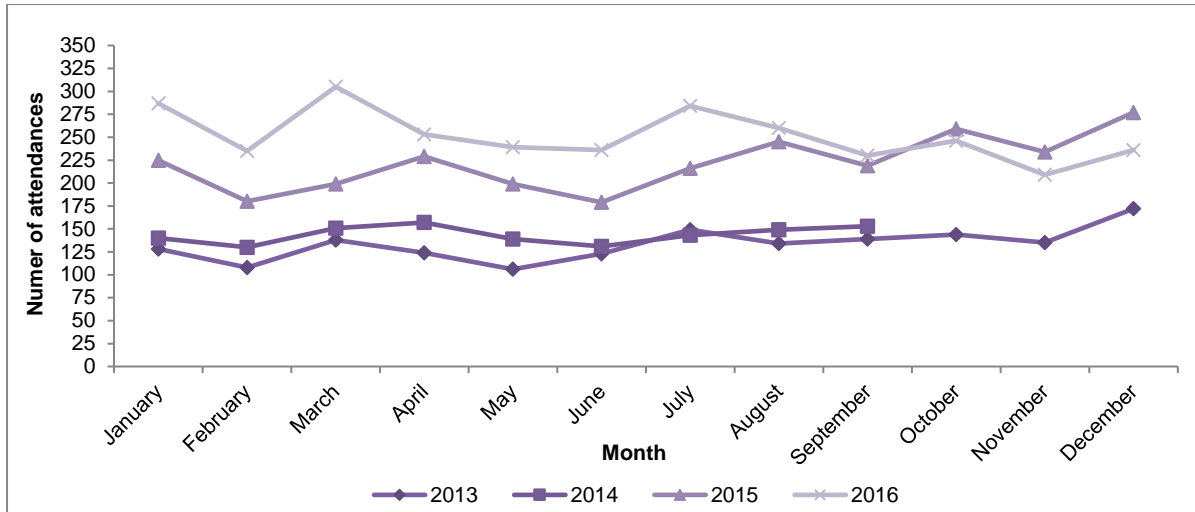
### Amphetamines

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 106 and 305 per month between January 2013 and December 2016 (Figure 47)<sup>4</sup>. Attendances in metropolitan Melbourne at which amphetamine use was recorded have increased since 2009 (425 attendances), with 533 attendances in 2010, 768 in 2011, 1,155 in 2012, and 1,600 in 2013, 1,293 in 2014<sup>5</sup>, 2,661 in 2015, and 3,020 in 2016. In regional Victoria, 744 attendances in 2016 involving amphetamines were recorded (vs. 631 in 2015). The median age of metropolitan was 31 years (range 14-83) and regional patients was 29 years (ranges 13–61) (Turning Point, unpublished data).

Ambulance attendances where crystal methamphetamine was recorded increased from 2,104 in 2015 to 2,379 in 2016. The median age of patients was 31 years (range 14–72). In regional Victoria, attendances at which crystal methamphetamine use was recorded also increased from 511 in 2015 to 584 in 2016. The median age of these patients was 29 (range 13–61) (Turning Point, unpublished data).

**Figure 47: Number of amphetamine-related events attended by Ambulance Victoria, Melbourne, 2013–2016**

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

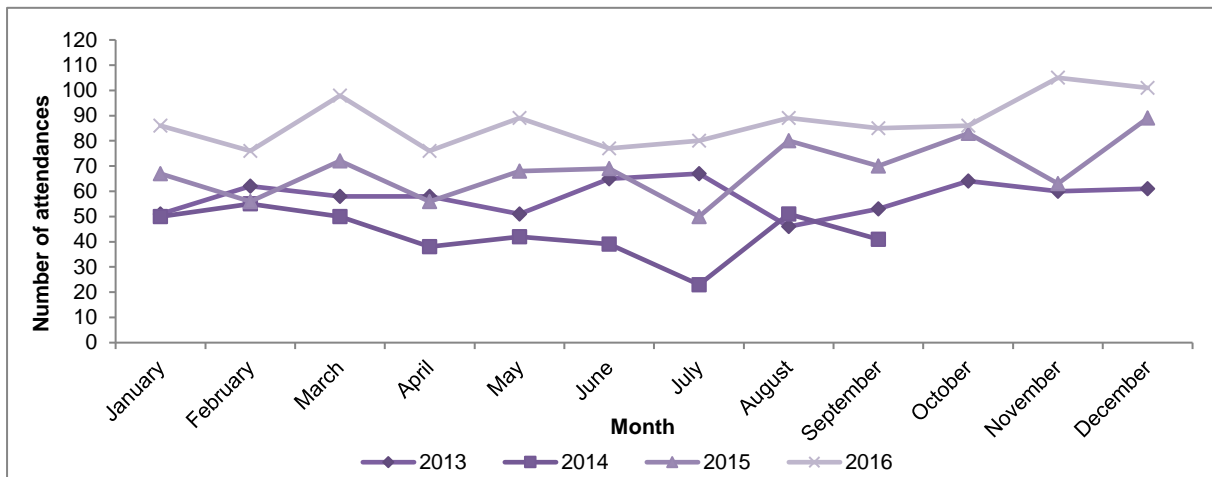


Source: Ambulance Victoria and Turning Point

**GHB**

Ambulance attendances at which GHB use was recorded ranged between 23 and 105 per month between January 2013 and December 2016 (Figure 48). In 2016, the number of ambulance attendances in metropolitan Melbourne at which GHB use was recorded decreased from 696 in 2013 to 389<sup>5</sup> in 2014, then increased substantially to 823 in 2015 and 1048 in 2016 (Turning Point, unpublished data). The median age of metropolitan patients requiring ambulance attendance was 25 years (range 14–63). Regional ambulance attendances at which GHB use was recorded averaged eight attendances per month in 2016, with the patient’s median age being 26 years (range 16-47).

**Figure 48: Number of GHB-related events attended by Ambulance Victoria, Melbourne, 2013–2016**



Source: Ambulance Victoria and Turning Point

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

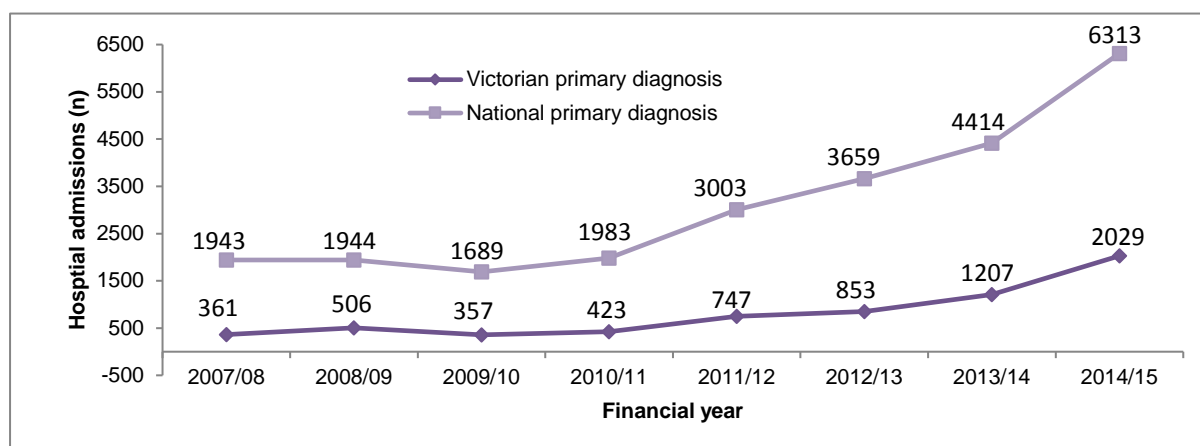
## 6.4 Hospital admissions

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 49. 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 but at over twice the rate. This figure comprises 31% of Australian hospital admissions related to the drug, a larger proportion than in the previous year (27%).

**Figure 49: Number of amphetamine-related hospital admissions, Victoria and Australia, 2007/08–2014/15**

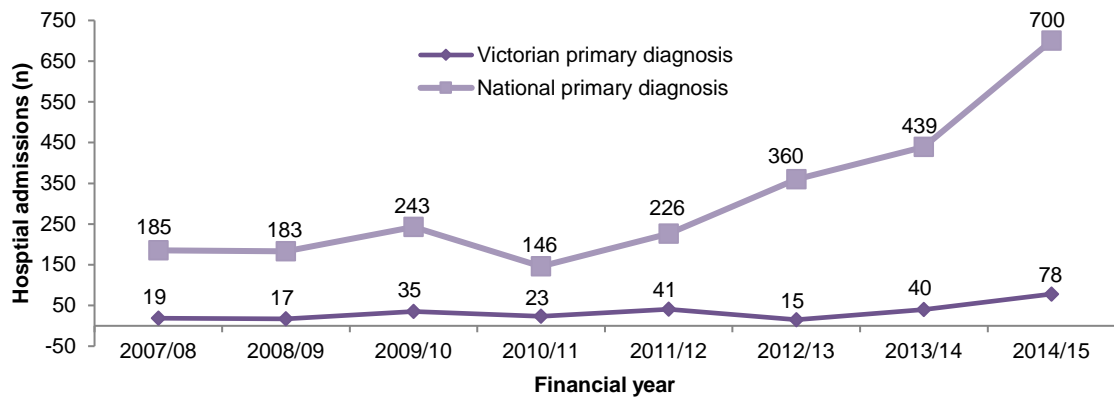


Source: Roxburgh & Breen, 2017

### 6.4.2 Cocaine

Figure 50 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**

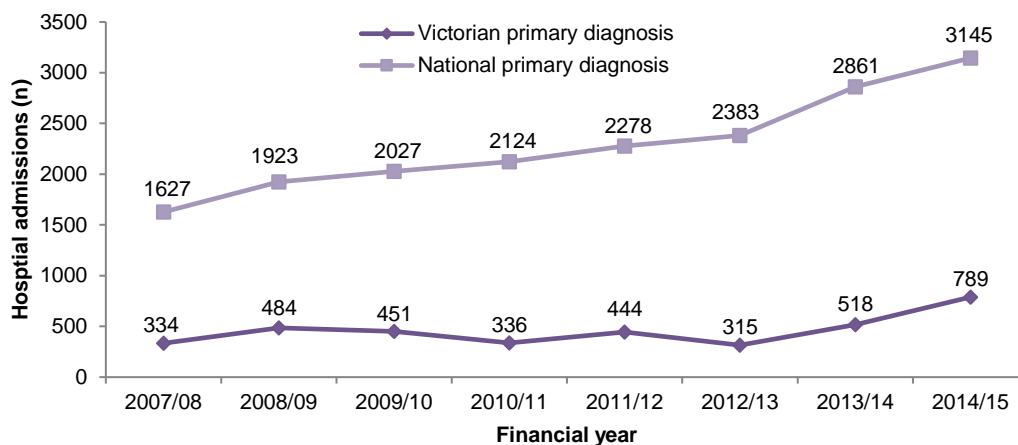


Source: Roxburgh & Breen, 2017

### 6.4.3 Cannabis

Cannabis-related hospital admissions among persons aged 15 to 54 years are shown in Figure 51 for Victoria and Australia, from 2007/08 to 2014/15. Nationally, the number of hospital admissions with a cannabis-related primary diagnosis increased steadily over the period. The number in Victoria has fluctuated 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 2017 RPU sample was 20 (range 10–42). According to the above scoring classification, 27% of participants were in the low or no distress range, 42% in the moderate range, 24% in the high range and 8% in the very high range. These results were comparable to 2016 K10 scores. Compared to the figure in the most recent NDSHS report (AIHW, 2017), for respondents who recently used illicit drugs (1 of 16 illicit drugs in the previous 12 months), a higher percentage of the 2017 RPU scored in the high to very high distress range (32% in EDRS vs. 22% in 2016 NDSHS). Participants were asked whether the specified feelings occurred more often, the same or less than in a 'usual' four weeks; 48% reported that they occurred about the same as usual, while 28% reported the feelings occurring more often than usual.

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

In 2017, 45 participants reported they had experienced a mental health problem in the preceding six months, most commonly depression (71%), followed by anxiety (64%). There was a significant increase in the number of people reporting experiencing both anxiety and depression in the preceding six months (46% vs 20% in 2016,  $p < 0.05$ ). Fifty-eight per cent of participants who experienced a mental problem reported attending a health professional in relation to it (vs. 68% in 2016). Forty-two per cent ( $n=11$ ) of participants who attended a health professional for their mental health problem were prescribed medication. The main medications prescribed were benzodiazepines ( $n=5$ ) and anti-depressants ( $n=4$ ).

## 7 RISK BEHAVIOUR

### Summary

- In 2017 significantly fewer participants reported ever injecting a drug than in 2016. Only 2% of participants had injected a drug during the six months preceding interview.
- Sixty-five per cent of participants reported recent penetrative sex with a casual partner, and 86% of this group had done so under the influence of alcohol and/or other drugs. The most commonly reported as being used during penetrative sex with a casual partner were alcohol (68%) and ecstasy (38%).
- Similar proportions of participants in 2017 (62%), 2016 (72%) and 2015 (64%) reported ever having a sexual health check-up, and 12% had been diagnosed with a sexually transmitted infection at some point in their life.
- Sixty per cent of the 2017 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 similar to 2016 RPU sample.
- There was a significant increase in the number of people scoring 'zero' on the methamphetamine Severity of Dependence Scale (SDS), which indicates minimal risk of methamphetamine dependence.
- Almost a third (31%) of the RPU who had driven a motor vehicle in the last six months (n=67) reported driving within three hours of consuming any illicit drug(s).

## 7.1 Injecting risk behaviour

### 7.1.1 Lifetime injectors

Only 3% of participants reported ever injecting any drug in their lifetime – significantly fewer than in 2016 ( $p < 0.05$ ) (Table 20). Among those who reported ever injecting, the median age for injecting for the first time was 24 years (range 14–29 years). Most RPU who had ever injected reported heroin was the first drug they injected ( $n=2$ ).

RPU provide minimal 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 2017 Victorian IDRS will be available in early 2018 (Aitken & Dietze, 2018).

**Table 160: Injecting behaviour among EDRS participants, 2012–2017**

	2012 (n=100)	2013 (n=100)	2014 (n=100)	2015 (n=100)	2016 (n=100)	2017 (n=100)
Ever injected (%)	13	22	10	8	12	3

Source: EDRS participant interviews

### 7.1.2 Patterns of recent injecting drug use

Three respondents reported having ever injected drugs, with two reporting that they had injected a substance in the preceding six months in 2017. Each person was injecting at least daily. Only one participant reported sharing needles in the past six months. Small numbers of injectors preclude detailed interpretation of the figures in Table 21, which should be viewed with caution.

**Table 21: Recent injecting drug use patterns among RPU who reported injecting in the last six months, 2016–2017**

	% injected past 6 months*		Median days injected last 6 months (range)*	
	2016 (n=5)	2017 (n=2)	2016 (n=5)	2017 (n=2)
Crystal	80	50	15.5 (1-69)	2 (2-2)
Speed	20	50	36 (36-36)	2 (2-2)
Base	-	-	-	-
Pharm stimulants**	-	-	-	-
Ecstasy (pills)	-	-	-	-
Ecstasy***	-	-	-	-
Ecstasy crystal	-	-	-	-
Heroin	80	100	30 (4-60)	180 (180)
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 2017, 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-five 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 (64%), 50% reported not using a condom the last time they had sex when sober (Table 22).

**Table 172: Prevalence of casual sexual activity and number of sexual partners in the preceding six months, 2012–2017**

	2012 (n=69)	2013 (n=52)	2014 (n=57)	2015 (n=54)	2016 (n=64)	2017 (n=65)
Number of casual partners						
One person (%)	23	21	12	17	39	25
Two people (%)	20	37	13	28	16	22
3-5 people (%)	36	31	21	39	30	26
6-10 people (%)	10	9	8	9	13	19
10+ people (%)	10	2	3	7	3	9
Sex with a casual partner when sober*	n=64	n=38	n=42	n=46	n=57	n=64
Used a protective barrier last time (when sober) %*	61	63	55	43	50	50

Source: EDRS participant interviews

\* Only included in surveys after 2010

### 7.2.2 Drug use during sex

Fifty-six 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 38% had done this on six or more occasions (Table 23). Similar to 2016, most respondents reporting having sex under the influence of alcohol (68%), followed by ecstasy (38%) and cannabis (30%). 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 increased significantly in 2017 to 71% (53% in 2016), while 30% (14% in 2016) reporting never using a condom. Among this group, 54% 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 (72% in 2015). The most common reasons for not using a condom on the last occasion were 'using contraceptive pill' (37%), 'we agreed not to use' (27%) and 'it wasn't mentioned' (17%).



**Table 183: Casual sex under the influence of drugs in the preceding six months among EDRS participants, 2015–2017**

	2015	2016	2017
<b>Penetrative sex with casual partner while on drugs last 6 months</b>	<b>n=50</b>	<b>n=49</b>	<b>n=56</b>
<b>Number of times*</b>			
Once (%)	12	14	9
Twice (%)	16	14	21
3-5 times (%)	26	27	32
6-10 times (%)	18	16	16
Ten or more times (%)	28	29	21
<b>Drugs used last time*</b>			
Ecstasy (%)	51	41	38
Cannabis (%)	33	29	30
Alcohol (%)	73	78	68
Speed (%)	10	4	4
Crystal meth (%)	8	10	4
Cocaine (%)	10	4	4
Ketamine (%)	10	20	7
LSD (%)	8	0	11
Used a protective barrier last time (%)*	45	28	45

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

Sixty-two per cent of the 2017 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 2016 EDRS (72%). Among those who reported ever being tested, 50% were tested in the past year. A slightly smaller proportion reported ever being diagnosed with an STI in 2016 than in 2016 (12% vs. 18%), and seven participants reported being diagnosed with an STI in the past year (Table 24).

**Table 24: Sexual health testing among RPU, 2015–2017**

	2015	2016	2017
	n=100	n=100	n=100
<b>Ever had a sexual health check-up (%)</b>	n=100	n=100	n=100
No	36	28	37
Yes, in last year	42	48	50
Yes, > year ago	22	24	12
Don't know/didn't get result	-	-	1
<b>Ever diagnosed with an STI (%)</b>	n=100	n=100	n=100
Yes	12	18	12

Source: EDRS participant interviews

### 7.3 Risky alcohol use among RPU

The 2016 RPU sample was administered the World Health Organization's 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 2017 (Table 25), the same as in the 2016 EDRS.

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. Eight per cent of participants had a score of four or more in 2017, a decrease from 13% in 2016 (Table 25).

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?

Seventy 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, a non-significant decrease from 2016 (80%).

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). Sixty per cent of the 2017 RPU sample scored eight or more, indicating alcohol consumption levels considered hazardous (Table 25), a slight increase from 2016 (58%).

**Table 195: AUDIT scores and proportion of RPU scoring above recommended levels indicative of hazardous alcohol use, 2017**

	Median score (range)	% scoring above recommended level
Consumption score	7 (1-12)	67
Dependence score	0 (0-8)	8
Adverse consequences score	2 (0-14)	80
Total AUDIT score	10 (0-31)	60

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 using the United States National Household Survey on Drug Abuse 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 2017, 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 2017.

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 ( $n=97$ ), the median SDS score was one (range 0–9). Eleven per cent scored four or above, suggesting ecstasy dependence, a smaller proportion than in 2016 (17%). Most participants (77%) reported never or almost never thinking that their use of ecstasy was out of control, and 88% 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’, the same proportion as in 2016 (35%). Of those RPU who scored four or above, 36% were female, a non-significant decrease from 2016 (48%). Almost half of the sample (47%) scored zero for all questions in the SDS (vs 52% in 2016).

Among RPU who had used methamphetamine (speed, base or crystal) in the preceding six months and completed the SDS questions ( $n=48$ ), the median SDS score was zero (range 0–14). Six per cent scored four or above, suggesting methamphetamine dependence (12% in 2016). Most responding RPU (90%) reported never or almost never thinking that their use of methamphetamine was out of control, and 92% reported never or almost never wishing they could stop using methamphetamine, similar to the proportions reported in the ecstasy SDS. Eight per cent reported worrying about their use of methamphetamine ‘sometimes’, ‘often’ or ‘always or nearly always’. The majority (85%) of methamphetamine SDS respondents scored zero for all questions in the SDS, a significant increase on 2016 (48%,  $p<0.05$ ).

## 7.5 Driving risk behaviour

Sixty-seven per cent of the 2017 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, 22% (n=15) believed that they had driven while over the legal limit for blood alcohol content in the preceding six months – a similar proportion to 2016 (28%); and reported having driven on a median of four days (range 1–40 days) while over the legal limit. Thirty-one per cent of RPU reported driving within three hours of taking drugs (Table 26), with the median number of reported occasions being six days (range 1–180 days). The 2016 survey did not include questions about the types of drugs consumed before driving.

**Table 206: Patterns of driving under the influence of alcohol and/or other drugs in the last six months among RPU, 2010–2017**

	2010	2011	2012	2013	2015	2016	2017
<b>Driven while over the legal limit of alcohol - last 6 months (%)*</b>	42	68	42	23	44	28	22
<b>Driven soon after taking a drug - last 6 months (%)*</b>	61	67	55	54	53	28***	31***
<b>Illicit drugs taken before driving - last six months (%)**</b>							
Ecstasy	42	30	33	34	37	-	24
Cannabis	61	59	58	43	69	-	76
Speed	26	33	20	20	9	-	10
Cocaine	8	7	10	6	14	-	5
Crystal methamphetamine	3	17	48	46	14	-	0
GHB	0	7	8	6	0	-	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 larger proportion of RPU reported engaging in any crime in the month preceding their interview in 2017 than in 2016.
- The 2017 EDRS sample's most commonly reported criminal activity was drug dealing (24%).
- Victorian amphetamine-type arrests, as a percentage of national amphetamine-type arrests, fell significantly for both consumer and provider arrests in the 2015/16 financial year.
- Victorian cocaine consumer-related arrests, as a percentage of national arrests, increased significantly in the 2015/16 financial year.
- Victorian provider arrests as a percentage of national arrests fell for all substances.

## 8.1 Reports of criminal activity among EDRS participants

Nine participants in the 2017 RPU sample reported that they had been arrested in the past 12 months (Table 27). There was a significant increase in the proportion of RPU who reported engaging in any crime in the past month in 2017 (39% vs. 26% in 2016,  $p < 0.05$ ). As in all previous years, the two most common types of crimes EDRS participants reported committing during the last month were drug dealing and property crime (24% and 21% respectively) (Table 27).

**Table 217: Criminal activity reported by EDRS participants, 2011–2017**

Types of criminal activity	2012 (n=100)	2013 (n=100)	2014 (n=100)	2015 (n=100)	2016 (n=100)	2017 (n=100)
Any crime (%)	49	26	47	45	26	39
Drug dealing (%)	35	18	28	27	14	24
Property crime (%)	25	12	25	27	19	21
Fraud (%)	3	<2	1	5	3	3
Violent crime (%)	12	<0	3	1	1	1
Arrested in the preceding 12 months (%)	17	11	10	7	5	9

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 2015/16 financial year in Victoria and Australia for amphetamine-type stimulants, cocaine, cannabis and hallucinogens.

### 8.2.1 Amphetamine-type stimulants

Table 28 details consumer and provider arrests for amphetamine-type stimulants during 2015/16 in Victoria and Australia. Amphetamines, methylamphetamine, MDMA and phenethylamines are included in the 'amphetamine-type stimulant' category. During 2015/16, approximately 23% of the arrests made in Australia for amphetamine-type stimulant offences occurred in Victoria, a significant decrease from the figure recorded in 2014/15 (27%) (ACIC, 2016).<sup>6</sup> The number of amphetamine-type consumer arrests in Victoria as a percentage of national consumer arrests decreased significantly in 2015/16 from 2014/15 (25% vs 27% respectively,  $p < 0.05$ ). The number of amphetamine-type provider arrests in Victoria as a percentage of national provider arrests decreased significantly in 2015/16 (8% vs 31% in 2014/15,  $p < 0.05$ ) (ACIC, 2016).

**Table 228: Amphetamine-type stimulants: Consumer and provider arrests – Victoria and Australia, 2015/16**

	Victoria (n)	Australia (n)	% of national arrests
Consumer	10,311	40,527	25%
Provider	584	6,885	8%
<b>TOTAL*</b>	10,895	47,625	23%

Source: ACIC

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

<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.

## 8.2.2 Cocaine

Table 29 details the comparatively small number of consumer and provider arrests for cocaine during 2015/16 in Victoria and Australia. During that period, approximately 18% of the arrests made in Australia for cocaine offences occurred in Victoria, the same as the previous financial year (ACIC, 2016). The number of cocaine consumer arrests in Victoria as a percentage of national consumer arrests increased significantly in 2015/16 (21% vs 17% in 2014/15,  $p < 0.05$ ). The number of cocaine provider arrests in Victoria as a percentage of national provider arrests decreased significantly in 2015/16 (7% vs 22% in 2014/15,  $p < 0.05$ ) (ACIC, 2016).

**Table 29: Cocaine: Consumer and provider arrests – Victoria and Australia, 2015/16**

	Victoria (n)	Australia (n)	% of national arrests
<b>Consumer</b>	404	1,906	21%
<b>Provider</b>	51	683	7%
<b>TOTAL*</b>	455	2592	18%

Source: ACIC

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

## 8.2.3 Cannabis

Table 30 details consumer and provider arrests for cannabis during 2015/16 in Victoria and Australia. During that period, approximately 12% of the arrests made in Australia for cannabis offences occurred in Victoria, a significant decrease from 2014/15 (13.7%,  $p < 0.05$ ) (ACIC, 2016). The number of cannabis consumer arrests in Victoria as a percentage of national consumer arrests did not change from 2014/15 (13%). The number of cannabis provider arrests in Victoria as a percentage of national provider arrests decreased significantly in 2015/2016 (5% vs 20% in 2014/15,  $p < 0.05$ ) (ACIC, 2016).

**Table 230: Cannabis: Consumer and provider arrests – Victoria and Australia, 2015/16**

	Victoria (n)	Australia (n)	% of national arrests
<b>Consumer</b>	9,333	72,198	13%
<b>Provider</b>	384	7,317	5%
<b>TOTAL*</b>	9,717	79,643	12%

Source: ACIC

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

## 8.2.4 Hallucinogens

Table 31 details the small number of consumer and provider arrests for hallucinogens (LSD or psilocybin mushrooms) during 2015/16 in Victoria and Australia. During that period, approximately 14% of the arrests made in Australia for hallucinogen offences occurred in Victoria, a non-significant decrease from the figure reported in the 2014/15 financial year (ACIC, 2016). The number of hallucinogen consumer arrests in Victoria as a percentage of national consumer arrests remained constant in 2015/16 (17%; 18% in 2014/15). The number of hallucinogen provider arrests in Victoria as a percentage of national provider arrests decreased significantly in 2015/16 (2% vs 31% in 2014/15,  $p < 0.05$ ) (ACIC, 2016).



**Table 241: Hallucinogens: Consumer and provider arrests – Victoria and Australia, 2015/2016**

	Victoria (n)	Australia (n)	% of national arrests
<b>Consumer</b>	124	725	17%
<b>Provider</b>	4	186	2%
<b>TOTAL *</b>	128	915	14%

Source: ACIC

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

## 9 SPECIAL TOPICS OF INTEREST

### Summary

- Thirty-eight 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=7), 86% reported that they had provided any NPS to others, mainly to friends for free or to share.
- Eleven per cent of the RPU sample reported that they had ever purchased an illicit drug online.
- Seven per cent reported purchasing an illicit drug online in the previous year, with most being from international retailers in dark net marketplaces.
- The most commonly reported drugs purchased online were ecstasy, 2C-x, LSD and cannabis.

## 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 was 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 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, questions were included in the 2017 Victorian EDRS survey about the supply and purchasing patterns of past year NPS consumers. As outlined in Table 32, 38% of the Victorian RPU sample reported using an NPS in the last six months, most commonly DMT, NPS-Other and 2C-x.

Participants were asked in the last 12 months if they provided any NPS to others. Of those who commented (n=7), 86% reported that they had provided any NPS to others, mainly to friends for free or to share.

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

**Table 252: Purchasing and supply patterns among past six months NPS consumers, 2017**

n=100	
<b>% used NPS last 6 months</b>	38
<b>% NPS used last 6 months</b>	(n=38)
DMT	61
2C-x	26
NBOMe	13
Synthetic cannabinoids	3
Methoxetamine	13
DXM	0
Methylone	5
PMA	18
Mephedrone	3
Salvia Divinorum	0
Mescaline	16
5-MeO-DMT	2
Other	29

## 9.2 Online purchasing

In 2017, 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 2017, 11% of the Victorian EDRS participants reported that they had ever purchased an illicit drug online, with 7% having done so in the previous year (vs. 16% lifetime and 13% in the past year in 2016). More than half (57%) of responding RPU reported purchasing illicit drugs ‘more than 5 times’ in the 12 months preceding their interview (Table 33).

**Table 263: Number of times recently purchased illicit drugs online, 2017**

How many online purchases of illicit drugs in the past 12 months?	% (n=7)
Once	14%
Twice	0%
3-5 times	29%
More than 5 times	57%

Source: EDRS participant interviews

Participants were asked what proportion of their drugs they purchased online. Almost half of those who reported purchasing drugs (43%) reported that less than 25% of their drugs were purchased online. No participants reported that all of their drugs were purchased online. Results are summarised in Table 34.

**Table 34: Proportion of drugs purchased online, 2017**

What proportion of all purchased drugs was purchased online?	% (n=7)
Less than 25%	43%
Between 25% and 49%	0%
Between 50% and 74%	14%
Between 75% and 99%	43%
All (100%)	0%

Source: EDRS participant interviews

Of those purchasing from the internet, 86% (n=6) reported that they were purchasing for the purposes of supplying to friends, a significant increase from 2016 (31% (n=4),  $p < 0.05$ ). No respondents indicated that they had purchased online for the purposes of selling for a profit.

Purchases of illicit drugs were primarily made from either dark net marketplaces similar to the now-closed Silk Road (100%, n=7), international webstores (on the 'surface web'; 14%, n=1), or another online marketplace such as eBay or Gumtree (14%, n=1). If participants had purchased from a dark net marketplace, they were asked to specify whether the retailers they purchased from were Australian (29%, n=2), international (43%, n=3) or both (29%, n=2).

Illicit substances recently purchased online were specified (see Table 35). Six participants reported buying a traditional illicit substance online, of which most reported this was ecstasy (any form) (86%) followed by LSD (57%) and cannabis (43%). Three participants reported purchasing an NPS online, including two who purchased a substance from the 2C-x family (67%).

**Table 275: Illicit substances reportedly purchased online recently, 2017**

Online substance purchased	%
<b>Traditional illicit substances</b>	<b>% (n=6)</b>
Ecstasy (any form)	86%
LSD	57%
Cannabis	43%
Benzodiazepines	29%
Ketamine	29%
Methamphetamine (any form)	14%
Mushrooms	0%
Cocaine	14%
<b>NPS illicit substances</b>	<b>% (n=3)</b>
2C-X family	67%
DMT	0%
NBOMe	33%
Mephedrone	33%
MXE	0%
Methylone	33%
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 36.

**Table 286: Familiarity with the 'dark net', 2017**

<b>What is your level of knowledge of the dark net?</b>	<b>% (n=100)</b>
Never heard of the 'dark net'	5%
Only heard of the 'dark net' online but never accessed it	33%
Researched the dark net but never accessed it	11%
Obtained drugs through a friend who purchased them from dark	23%
Accessed dark net marketplaces but never purchased from them	20%
Purchased drugs from 'dark net' market places	8%

Source: 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
<hr/>		
<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	Methylenedioxypropylpyrovalerone (3,4-methylenedioxy)	A cathinone derivative
<hr/>		
<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)
<i>(Ergolines)</i>		
LSA (Hawaiian Baby Woodrose)	d-lysergic acid amide	LSA is a naturally occurring psychedelic found in many plants such as morning glory
<hr/>		
<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
<i>(Dissociative)</i>		
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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