Queensland

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QUEENSLAND TRENDS IN ECSTASY AND RELATED DRUG MARKETS 2017

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

Australian Drug Trend Series No. 198

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The University of Queensland

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Please note that as with all statistical reports there is the potential for minor revisions to data in this report over its life. Please refer to the online version at www.ndarc.med.unsw.edu.au.

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ABBREVIATIONS

ACC	Australian Crime Commission
ACBPS	Australian Customs and Border Protection Service
ADIS	Alcohol and Drug Information Service
AFP	Australian Federal Police
AGDH	Australian Government Department of Health
AIHW	Australian Institute of Health and Welfare
AUDIT	Alcohol Use Disorder Identification Test
CCC	Crime and Corruption Commission
DMT	dimethyltryptamine
EDRS	Ecstasy and Related Drugs Reporting System
GHB	gamma hydroxybutyric acid (‘fantasy’)
GP	general practitioner
IDRS	Illicit Drug Reporting System
K10	Kessler Psychological Distress Scale
LSD	lysergic acid diethylamide
MDA	3,4-methylenedioxyamphetamine
MDMA	3,4-methylenedioxymethylamphetamine (‘ecstasy’)
NDARC	National Drug and Alcohol Research Centre
NDSHS	National Drug Strategy Household Survey
NNDSS	National Notifiable Diseases Surveillance System
NPS	new psychoactive substances
NSP	Needle and Syringe Program
NSW	New South Wales
PDI	Party Drugs Initiative
PMA	paramethoxyamphetamine
QLD	Queensland
QPS	Queensland Police Service
RPU	regular psychostimulant user
SDS	Severity of Dependence Scale
STI	sexually transmitted infection
WHO	World Health Organization
2CB	4-bromo-2,5-dimethoxyphenethylamine
2CC	2,5-dimethoxy-4-chlorophenethylamine
2CI	4-Iodo-2,5-dimethoxyphenethylamine

GLOSSARY OF TERMS

Binge	Use over at least 48 hours without sleep
Illicit	Describes pharmaceuticals obtained from a prescription in someone else's name, e.g. through buying them from a dealer or obtaining them from a friend or partner
Indicator data	Sources of secondary data used in the EDRS (see Method section for further details)
Key expert	A person who participated in the Key Expert Survey component of the EDRS (see Method section for further details)
Licit	Describes pharmaceuticals (e.g. benzodiazepines, antidepressants and opioids such as methadone, buprenorphine, morphine and oxycodone) obtained by a prescription in the user's name. This definition does not take account of 'doctor shopping' practices; however, it differentiates between prescriptions for self as opposed to pharmaceuticals bought on the street or those prescribed to a friend or partner.
Lifetime injection	Injection (typically intravenous) on at least one occasion in the participant's lifetime
Lifetime use	Use on at least one occasion in the participant's lifetime via one or more of the following routes of administration: injecting, smoking, snorting, shelving/shafting and/or swallowing
Opiates	Opiates are derived directly from the opium poppy by isolating/purifying the chemicals naturally present in the poppy, e.g. morphine, codeine
Opioids	Opioids include all opiates but also include chemicals that have been synthesised to have opiate-like effects, e.g. heroin (derived from opium) is an opioid but not an opiate; methadone (synthesised to have effects like morphine) is an opioid; morphine is both an opiate and opioid
Participant	A person who participated in the Queensland ecstasy use survey component of the EDRS (does not refer to key expert participants unless stated otherwise)
Point	0.1 gram; although may also be used as a term referring to an amount for one injection (i.e. a shot)
Recent injection	Injection (typically intravenous) in the six months preceding interview
Recent use	Use in the six months preceding interview via one or more of the following routes of administration: injecting, smoking, snorting, shelving/shafting and/or swallowing
Shelving/shafting	Use via insertion into vagina (shelving) or the rectum (shafting)
Use	Use via one or more of the following routes of administration: injecting, smoking, snorting, shelving/shafting and/or swallowing

Guide to days of use in preceding six months

180 days	Daily
90 days	Every second day
24 days	Weekly
12 days	Fortnightly

EXECUTIVE SUMMARY

The Ecstasy and Related Drugs Reporting System (EDRS) is conducted every year in the capital city of every state and territory in Australia. Interviews are conducted with people from the general population who regularly use ecstasy and other illicit psychostimulant drugs. The EDRS is designed to identify emerging trends among a sentinel group of drug users, and to inform the health and law enforcement sectors about patterns of drug use, drug markets, relevant health issues and other special areas of interest.

In 2017, 100 regular psychostimulant users (RPU) were recruited for the Queensland EDRS. Characteristics were largely similar to previous years (i.e. typically male, heterosexual, from an English-speaking background, and had completed secondary school). The mean age of the 2017 sample (20 years) was similar to previous years (e.g. 24 years in 2016). The proportion of single participants was also similar in 2017 (62% vs 63% in 2016) as well as with those working full-time (13% vs 15% in 2016), and there was a decrease in the median weekly income ($300 vs $506 in 2016). In all instances, changes are only reported where they reach statistical significance ($p<0.05$).

Consumption trends

Current drug use

Unlike previous years, cannabis was reported by participants as the drug of choice, with ecstasy as the second drug of choice (cannabis: 34%; ecstasy: 25%). Preferences for cocaine and LSD dropped. Aside from tobacco, the most common drugs used recently were ecstasy, cannabis, alcohol and LSD. The greatest proportion of participants reported using ecstasy and related drugs fortnightly (33%), though one-quarter reported using weekly. Injecting remained rare among this sample. Binging behaviour (i.e. using drugs for 48 hours or more without sleep) was reported by 23% of participants during the previous six months.

Ecstasy use

All participants except one reported using a form of ecstasy/MDMA at least once in their lifetime. The mean age of first use was stable at 18 years. Nearly all (99%) reported using some form of ecstasy/MDMA in the previous six months. The most common forms were ecstasy pills and crystalline MDMA (both 78%). Recent use of MDMA pills by 78% of participants was higher than in 2016. Ecstasy was mainly swallowed, sometimes snorted, rarely smoked, and never shelved/shafted or injected. When last using ecstasy, 96% of participants also used another drug. Among those who reported using drugs for 48 hours or more without sleep in the previous six months (n = 35), 73% reported having used ecstasy on the most recent occasion.

Methamphetamine use

One-third (34%) of participants reported lifetime use of methamphetamines and 14% reported recent use. This is lower than 2016 levels. Lifetime and recent use of speed powder reduced to 24% and 9% respectively ($p < 0.05$). Lifetime use of base was reported by only 7% of

participants and only 1% reported recent use. Ice (crystalline methamphetamine), unlike previous years, was not the type of methamphetamine reported as most used in the past six months; recent use was reported by only 7%. Lifetime use of ice was reduced to 20%. Frequency of recent ice use dropped to 2 days in the past six months (median) in 2017 ($p < 0.05$).

Cocaine use

Lifetime cocaine use was stable at 68% but recent cocaine use increased slightly to 50%. Cocaine use remained infrequent.

Ketamine use

One in five participants (21%) had recently used ketamine and their use was infrequent. Lifetime use was reported by 33%.

GHB use

Lifetime use of GHB was lower at 9%, with occasional use reported by participants in the previous six months.

Hallucinogen use

There was a return in the use of LSD to levels seen in 2014. Lifetime use reduced slightly from 75% in 2016 to 68% in 2017 ($p < 0.05$). Recent use remained similar (55% in 2016 vs. 52% in 2017) ($p < 0.05$). Frequency of use remained at a median of three days in the previous six months. The median number of LSD tabs used in a typical session increased from one to two.

Half of participants reported lifetime use of hallucinogenic mushrooms (53%), with one-third using them in the previous six months. Frequency of use remained occasional.

Cannabis use

The use of cannabis remained high and stable, with almost all participants (93%) reporting use in the previous six months. In 2017, cannabis was the drug used most often. The mean frequency of use stayed at just over three times per week. Daily use of cannabis was reported by 20% participants. Cannabis was predominantly smoked, though it was also reported to be eaten, and inhaling using a vaporiser was reported by 22%.

Other drug use

The use of alcohol and tobacco remained high and frequent. Recent use of methylene-dioxyamphetamine (MDA) was reported by 15% of participants and use remained occasional. The prevalence of lifetime and recent use of illicit anti-depressants remained low, as did recent illicit use of benzodiazepines (48%). Recent use of nitrous oxide at 26% was similar to 2016 (25%) as was amyl nitrate (10% in 2017 vs. 9% in 2016).

The use of heroin, methadone, buprenorphine and prescribed other opioids (e.g. morphine and oxycodone) remained low, as did lifetime use of illicit other opioids. One in three (34%) reported ever using opioids not prescribed to them (39% in 2015).

Recent licit use of pharmaceutical stimulants remained low at 6%, whereas recent use of illicit pharmaceutical stimulants remained common at 58% (56% in 2016), with frequency of use remaining monthly.

New psychoactive substances

In 2017, 38% of participants reported recent use of new psychoactive substances (NPS), predominantly DMT and members of the 2C-X family, which was fewer than 2016 ($p<0.05$). There were no reports of the use of synthetic cannabinoids, and recent use of all NPS other than DMT and 2C-B dropped.

Drug markets: price, purity, availability and supply

Ecstasy market

Ecstasy pills were the most common form of ecstasy purchased in the previous six months (77%). The median price per pill remained fairly stable at $20. At least two thirds of participants who commented reported the purity (strength) of pills and powder to be medium/high, with more reporting purity fluctuation for pills (23%) than other forms. MDMA crystal and caps were considered to be of higher purity than pills and powder. The most recent purchase of ecstasy remained most likely to have been from a friend at a private home.

Methamphetamine market

The price of speed powder remained stable at approximately $34 per point in 2017 ($33 per point in 2016). Rating of purity remained stable, but fewer participants than in 2016 rated it to be easy to obtain; purchases were few. No purchases of base were reported in 2017. A point of ice cost about $46, or $428 per gram—higher than 2016 prices. Ice was rated to be of medium/high purity and easy/very easy to obtain. Methamphetamine was most likely to have been sourced from a known dealer at a friend's home.

Cocaine market

The median price of cocaine remained stable at $300 per gram. Among those who commented, 68% perceived cocaine as difficult/very difficult to obtain in the previous six months. A friend was the most common source person and a friend's house was the most common source location.

Ketamine and GHB markets

Seven participants reported having purchased ketamine, at a mean of $80 per gram, with prices reported as stable and strength as high. No participants reported having bought GHB in the previous six months.

LSD market

The reported price of LSD remained stable, with one tab of LSD costing approximately $20 (mean). Two-fifths of participants perceived purity to be high (44%), less than 2016. A small percentage more of participants reported LSD to be difficult or very difficult to obtain (41% in 2017 vs 38% in 2016), and that availability was stable (25%). Participants were most likely to have obtained LSD from a friend at a friend's house.

Cannabis market

The median price for an ounce of hydroponic cannabis (hydro) was $275, and $250 for bush, with prices perceived as largely stable in the previous six months. Purity of both hydro and bush cannabis was rated as medium to high. Both forms remained easy/very easy to obtain in the previous six months. Cannabis was most often obtained from a friend or known dealer, at a private home (own, friend's or dealer's), and was most often used at home.

Health-related trends associated with ecstasy and psychostimulant use

Overdose and drug-related fatalities

In 2017, 34% reported having overdosed on a stimulant drug at least once in their lifetime, with 25% reporting a stimulant overdose in the previous year. The stimulant drug most commonly attributed to an overdose in the previous year was ecstasy, followed by crystal meth (ice).

A lifetime experience of overdose on a depressant drug was reported by 22% of participants, with about half reporting they had experienced a depressant overdose in the previous 12 months (12%). The drug most commonly attributed to a depressant overdose in the previous year was alcohol.

Dependence

Dependence was not common among users of ecstasy: only 10% scored four or more on the Severity of Dependence Scale. One third (32%) of methamphetamine users showed indications of dependence.

Help-seeking behaviour

The majority (78%) of participants reported not having accessed a health service or professional related to their drug and/or alcohol use in the previous six months. Among those who did, the most common service accessed was a psychologist (11%), a change from 2016 where help was most often sought from a drug and alcohol counsellor.

Drug treatment remained low in this sample with only four participants reporting they were currently in some form of treatment.

Among all participants, 64% reported moderate to very high levels of psychological distress on the K10. Two-fifths (43%) self-reported having had a mental health problem in the previous six months. The most common mental health problems experienced were anxiety and depression, with 29% attending a health professional for mental health reasons in the previous six months, an increase over 2016 (15%).

Risk behaviour

Injecting risk behaviours

Low levels of recent injecting were reported in 2017; 7% reported injecting any drug in the previous month. Drugs recently injected were speed, heroin, base and steroids.

Casual sex

Three-quarters (76%) of participants reported having had penetrative sex with a casual sex partner in the previous six months. The most common drugs reported to have been used when having sex were alcohol, cannabis and ecstasy, with cannabis use significantly increasing (from 48% in 2016 to 64% in 2017; $p < 0.05$); ecstasy and alcohol use associated with casual sex increased from 2016.

Half of participants (51%) reported having had a sexual health check-up in the last year.

Alcohol use

Seventy six percent of participants scored eight or more on the Alcohol Use Disorder Identification Test (AUDIT), corresponding to drinking at levels which may be harmful to their health.

Driving

Of participants who drove in the last six months, over a quarter (28%) reported doing so under the influence of alcohol. Half reported driving soon after using an illicit drug.

Law enforcement-related trends associated with ecstasy and related drug use

Prison history remained low (3%). Twelve per cent of participants reported having been arrested in the previous six months; the most common offences were use/possession of drugs, violent crimes and public order offences. Drug dealing in the previous month was reported by 37% of participants.

Special topics of interest

Online purchasing

Nearly one-fifth of participants (23%) reported ever purchasing substances online, most (18%) having done so in the last year. This was higher than national reports of 18% and 14% respectively. Only 8% bought less than a quarter of their drugs online, typically buying traditional substances such as LSD, ecstasy, cannabis, cocaine, and pharmaceutical stimulants rather than NPS. Only 4% were unaware of the ‘dark web’, while 20% had purchased substances through this avenue, similar to 2016.

1 INTRODUCTION

The Ecstasy and Related Drugs Reporting System (EDRS) is an annual, national study funded by the Australian Government Department of Health and co-ordinated by the National Drug and Alcohol Research Centre (NDARC) at the University of New South Wales. The 2017 Queensland component was undertaken at the Institute of Social Sciences Research (ISSR) at The University of Queensland (UQ).

UQ participated in the 2000 and 2001 trial of the EDRS (then called the Party Drugs Initiative or PDI). The purpose of the trial was to determine the feasibility of monitoring emerging trends in ecstasy and related drug markets using the same methodology as the Illicit Drug Reporting System (IDRS). The PDI commenced as a national study in 2003 and was re-named the EDRS in 2006. The current report presents the findings of the 14th year of data collection for the EDRS in Queensland (no data were collected in 2002).

1.1 Study aims

The EDRS monitors the use, price, purity and availability of ecstasy, amphetamines and other illicit drugs. It is designed to provide a snapshot of emerging trends across all Australian jurisdictions and changes over time.

The annual EDRS national, state and territory reports

- describe the demographic characteristics of current, regular psychostimulant users in Australian capital cities
- examine patterns of ecstasy and other drug use among these samples
- identify current trends in the price, purity and availability of a range of illicit drug classes
- indicate the nature and incidence of drug-related harms, and
- identify emerging trends in ecstasy and related drug markets that may represent areas of research need.

2 METHODS

A triangulation method was used to combine information collected from:

- quantitative interviews with current, regular ecstasy and other psychostimulant users (participants), who are considered a population likely to be aware of new drug trends
- qualitative interviews with 'key experts' who have current regular contact with people who are using ecstasy or other psychostimulants, and
- available data on health, law enforcement and population trends in illicit drug use.

2.1 Survey of regular psychostimulant users

In Australia, the ecstasy market has existed for over three decades. Throughout this report, 'ecstasy' refers to drugs that are alleged to contain 3, 4-methylenedioxymethylamphetamine (MDMA). Excluding the misuse of pharmaceutical drugs, ecstasy is the second most prevalent illicit drug after cannabis, with 2.2% of the Australian population aged 14 years and over having used ecstasy in the previous 12 months (AIHW, 2017).

Until 2013, EDRS participants were required to be regular ecstasy users; however, due to difficulty with recruitment in some of the smaller jurisdictions, the nationwide EDRS criteria were broadened to include regular psychostimulant users (i.e. people who had used any ecstasy or related drug on at least six separate occasions over the last six months). Participants are now termed regular psychostimulant users (RPU).

A sentinel sample of 100 current, regular users of substances sold as 'ecstasy' or other psychostimulants was recruited between April and June 2017 from the greater Brisbane and Gold Coast regions (South East Queensland). They were interviewed on topics relating to their illicit drug use, including prices paid for illicit drugs, perceptions of drug purity and availability, risk and help-seeking behaviours, health, law enforcement trends associated with drug use and drug policy. Ethics approval was gained from the Human Research Ethics Committees at the University of New South Wales and The University of Queensland.

2.1.1 Recruitment of participants

As in previous years, purposive sampling was used to recruit participants using advertisements on websites (e.g. pillreports.ru), social media (e.g. Facebook) and posters in public places (e.g. shops and universities). Snow-balling techniques (i.e. word-of-mouth) were also used.

Recruitment advertisements explained that current regular users of ecstasy and other psychostimulants were being recruited to undertake a face-to-face survey lasting approximately one hour. They were made aware that if eligible, they would be reimbursed $40 for their time and expenses in participating. Upon completion of the interview, participants were asked to mention the study to friends who might be willing and able to participate. This is a method often used to access illicit drug user populations (Dalgarno, 1996; Ovendon & Loxley, 1996).

Selection criteria for participation in the EDRS required that participants:

- were aged 17 years or over
- had been resident in South East Queensland continuously for the past 12 months and
- had used ecstasy or other psychostimulants at least once a month (i.e. six times) during the past six months.

The 2017 Queensland EDRS recruited a total of 100 participants. The majority of participants (93%) had used ecstasy (MDMA) at least once a month in the past six months, while seven participants had used only other illicit psychostimulants at least six times in this timeframe.

2.1.2 Procedure

Interested individuals inquired via telephone, SMS or email about participating in the study. If the individual met selection criteria, an interview was scheduled at a coffee shop in one of six strategic locations. It was explained that participation was voluntary and anonymous, and that responses would be de-identified to protect confidentiality. The nature and purpose of the study was explained to participants before written consent was obtained.

2.1.3 Measures

Questions in the interview covered a range of topics including demographics, drug use history and characteristics of recent use—particularly ecstasy; price, purity and availability of various illicit drugs and associated risk behaviours. A dummy drug ('babazine') was included in the drug use section as a method of identifying over-reporting of drug use by participants. No participants reported using babazine.

2.1.4 Data analysis

Data were entered into IBM® SPSS® Statistics, version 21.0 for Windows and analysed in STATA, version 13.0. Data analyses were largely descriptive and concerned with lifetime and recent (past six-month) patterns of use and participant reports of the price, purity and availability of a range of illicit drugs. Significance testing was undertaken to compare differences in proportions between 2016 and 2017; statistical significance at the $p < 0.05$ level using t-tests or proportion tests is reported within the text. Other proportional differences observed between 2016 and 2017 may represent sampling variability only.

2.2 Other indicators

Secondary data from health, research and law enforcement sources were identified to complement the information collected from participants. In 2017, these included:

- from the Australian Criminal Intelligence Commission (ACIC) — number and purity of drug seizures by the Queensland Police Service (QPS) and the Australian Federal Police (AFP); Queensland clandestine laboratory seizures and drug-related arrests

- from the Australian Institute of Health and Welfare (AIHW) — results from the National Drug Strategy Household Surveys (NDSHS)

3 DEMOGRAPHICS

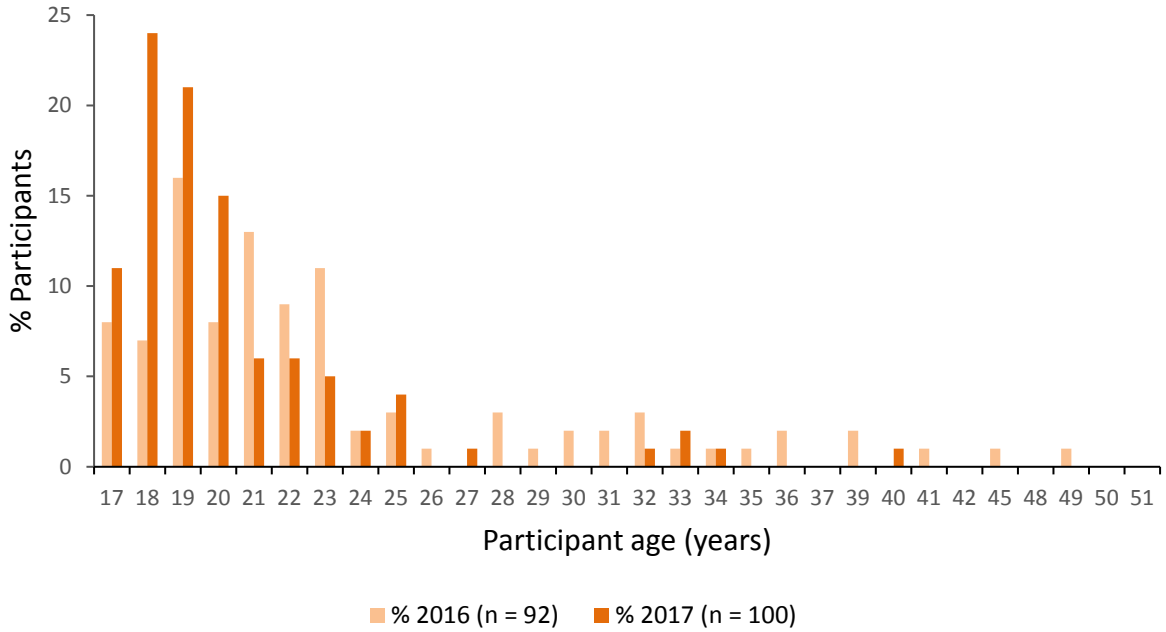
Key points

- Most were male, single, heterosexual, aged early-mid twenties
- Most had completed Year 12; one-quarter were still studying
- Most had some form of employment

3.1 Overview of the EDRS sample

The 2017 EDRS sample in Queensland was slightly younger than that of previous years (Figure 1). The mean age of 20 years was lower than earlier years (24 years in 2015 and 2016).

Figure 1: Distribution of participant ages, 2016 and 2017



Source: QLD EDRS participant interviews

Table 1 shows demographic characteristics of the 2017 sample. These were very similar to those of previous years. Over half of participants were male, and the majority were of English-speaking background, living in rental accommodation, and had completed Year 12.

The mean weekly income was estimated at $439 (n = 94, range $25–$2115), which was lower than 2016 (mean $506), potentially due to an increase in those reporting part-time/casual employment. The income profile was similar to previous years. In 2016, 63% of all participants reported their main source of income in the previous month was from a wage or salary, with 19% reporting it was from a government pension, allowance or benefit (i.e. Centrelink), but only 7% reported it was from a parental allowance. One participant reported they received no income in the previous month.

Table 1: Demographic characteristics, 2016 and 2017

	2016 (n=92)	2017 (n=100)
Mean age (range)	24 (17–49)	**20 (17-40)**
% Male	68	**62**
% English-speaking background	89	**99 ↑**
% Aboriginal and/or Torres Strait Islander	4	**4**
% Sexual identity		
Heterosexual	90	**83**
Gay male	1	**1**
Lesbian female	0	**2**
Bisexual	8	**13**
Other	1	**1**
% Relationship status		
Married/de facto	3	**5**
Regular partner	34	**33**
Single	63	**62**
Divorced/separated/widowed	-	**-**
% Accommodation		
Own house/flat	5	**3**
Rented house/flat	77	**64**
Parents'/family home	12	**26 ↑**
Boarding house/hostel	1	**5**
No fixed address	4	**2**
Education		
Mean years of school education	12	**12**
% Completed Year 12 or equivalent	88	**86**
% University/college qualifications	15	**13**
% Trade/technical qualifications	23	**12**
% Employment status		
Not employed	11	**8**
Full time	15	**13**
Part time/casual	10	**28 ↑**
Full time student	24	**19**
Part time student	1	**1**
Work and study	39	**29**
Other	0	**2**
Income		
Mean weekly income	$506	**$439**

Note: Arrow symbol signifies a significant difference between 2016 and 2017 ($p < 0.05$). Percentages may not total 100% due to rounding.
Source: QLD EDRS participant interviews

4 CONSUMPTION PATTERNS

Key points

- Cannabis was the drug of choice among participants, replacing ecstasy.
- Alcohol, ecstasy and cannabis respectively had the highest prevalence of recent use.
- There was a large decrease in the prevalence of recent ice use.
- Few participants (1%) reported ice as the drug most used during the past six months.
- Two-fifths of participants reported using ecstasy weekly or more often.
- Injecting remained rare among this sample.

4.1 Drug use history and current drug use

4.1.1 Drug use history

Participants were asked about lifetime and recent use of drugs, as well as age of first use, frequency of use during the previous six months, and route of administration (ROA: Table 2).

While shelving/shafting was included as a route of administration on the questionnaire, it has not been reported in Table 2 due to the rarity of this method. In 2017, two participants reported shelving/shafting ecstasy capsules or pills and two MDMA crystals during the last six months.

Table 2: Drug use history, 2017

Form of drug	Use				Route of administration[d] %			
					Injected[d]	Smoked[d]	Snorted[d]	Swallowed[d]
	Ever %	Mean age first used[a]	Recent[b] %	Days used[c]	Recent[b] %	Recent[b] %	Recent[b] %	Recent[b] %
Ecstasy pills	93	17	78	12	0	3	46	96
Ecstasy powder	38	18	28	5	0	4	75	43
Ecstasy capsules	79	18	71	6	0	0	23	90
MDMA crystals	84	18	78	6	0	3	51	83
Amphetamine powder (speed)	24	17	9	10	0	22	89	33
Methamphetamine base	7	18	1	3	0	0	0	100
Crystalline methamphetamine (ice)	20	18	7	2	14	100	29	43
Pharmaceutical stimulants (licit)	9	-	6	78	0	0	0	100
Pharmaceutical stimulants (illicit)	68	-	58	5	0	0	22	88
Cocaine	68	19	50	2	0	0	49	3
LSD	68	17	52	3	0	0	1	49
MDA	29	-	15	2	0	0	27	87
Ketamine	33	-	21	2	0	5	95	14
GHB[d]	9	-	4	2	0	-	-	100
Amyl nitrate	22	-	10	2	-	-	-	-
Nitrous oxide	42	-	26	3	-	-	-	-

[a] Calculated for those who reported lifetime use
[b] In the preceding six months
[c] Median days in the preceding six months (180 days) among those who did use
[d] % of the total sample
Note: Responses are for the name given to the drug when it was obtained (i.e. regardless of actual content)
Source: QLD EDRS participant interviews

Table 2: Drug use history, 2017 (continued)

Form of drug	Use				Route of administration[d] %			
					Injected[d]	Smoked[d]	Snorted[d]	Swallowed[d]
	Ever %	Mean age first used[a]	Recent[b] %	Days used[c]	Recent[b] %	Recent[b] %	Recent[b] %	Recent[b] %
Cannabis	97	15	93	88	-	96	-	18
Alcohol	99	14	99	48	-	-	-	-
Heroin	8	-	4	2	25	0	75	0
Methadone	3	-	1	2	0	-	0	1
Buprenorphine	0	0	0	0	-	-	-	-
Other opioids (licit)	27	-	13	7	0	0	8	92
Other opioids (illicit)	34	-	27	3	4	4	7	96
Over-the-counter codeine[e]	36	-	26	4	-	-	-	-
Tobacco	87	15	79	90	-	-	-	-
Anti-depressants (illicit)	11	-	7	7	0	14	0	86
Benzodiazepines (licit)	11	-	9	6	0	0	0	89
Benzodiazepines (illicit)	53	-	48	3	0	2	6	92
Mushrooms	53	-	30	2	0	0	0	100
Over-the-counter stimulants (illicit)	10	-	7	5	0	0	0	100
Steroids	2	-	1	2	0	-	-	100

[a] Calculated for those who reported lifetime use
[b] In the preceding six months
[c] Median days in the preceding six months (180 days) among those who did use
[d] % of the total sample
[e] for non-pain use
Note: Responses are for the name given to the drug when it was obtained (i.e. regardless of actual content)
Source: QLD EDRS participant interviews

4.1.2 Drug of choice and drug most used

Participants' nominated drug of choice changed in 2017, with cannabis replacing ecstasy as the most preferred substance.

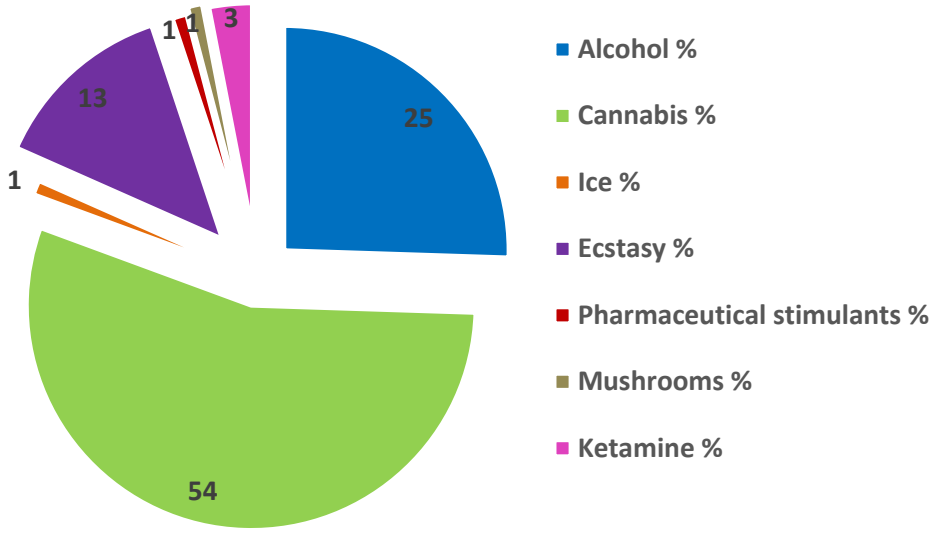
Table 3: Drug of choice, 2016 and 2017

Drug of choice	2016 (n=92) %	2017 (n=100) %
Ecstasy	40	**25** ↓
Cannabis	21	**34** ↑
Cocaine	12	**10**
Alcohol	9	**16**
LSD	10	**6**
Crystalline methamphetamine (ice)	4	**1**
Other*	4	**8**

Note: 'Other' includes MDA, tryptamine and mushrooms. Source: QLD EDRS participant interviews

Figure 2 shows that cannabis (54%) was the drug used most often in the previous six months, followed by alcohol (25%) and ecstasy (13%). Availability, health effects and price were the reasons most commonly given for disparities between drug of choice and drug most often used. Compared with 2016 data, there was a decrease in ecstasy as the most commonly used drug. A small proportion (1%) of participants nominated hallucinogens (LSD/mushrooms) as the drug most used in 2017.

Figure 2: Drug used most often in previous six months, 2017



Source: QLD EDRS participant interviews

4.1.3 Frequency of ecstasy and related drug use

In 2017, more participants (44%) reported at least weekly use of ecstasy and related drugs ($p<0.05$).

Table 4: Frequency of ecstasy and related drug use during previous month, 2016 and 2017

	2016 (n=92) %	2017 (n=77) %
Not in the last month	3	**2**
Monthly	18	**21**
Fortnightly	42	**33**
Weekly	22	**24**
More than once per week	10	**19**
Once a day	2	**1**
More than once a day	2	**0**

Source: QLD EDRS participant interviews

4.2 Ecstasy use

Key points

- Mean age of first ecstasy use remained stable at 17 years.
- Ecstasy as drug of choice remained decreased from 40% in 2016 to 25% in 2017.
- Recent use of MDMA crystals (78%), ecstasy pills (78%) and capsules (71%) increased, and powder (28%) decreased slightly ($p < 0.05$).
- Ecstasy in all forms was mainly swallowed, sometimes snorted, rarely smoked, and never injected.
- The most recent time participants used ecstasy, 73% also used another drug.
- 23% reported using drugs for 48 hours or more without sleep in the previous six months.

4.2.1 Patterns of ecstasy use among regular psychostimulant users

Table 5 presents reported patterns of ecstasy use among the 2017 sample.
All participants except one reported using some form of ecstasy at least once in their lifetime. The mean age of first use of ecstasy was stable at 17 years in 2017. Pills were the most common form of ecstasy ever used (by 93% of participants), followed by crystals (84%), caps (79%), and powder (38%).
Twenty-five percent of participants nominated ecstasy as their drug of choice in 2017, a decrease since 2016. In the previous six months, most participants (98%) reported using

some form of ecstasy: MDMA crystal and pills were both the most commonly-used form in 2017 (78%)

Quantity appeared to remain stable while frequency of use increased. The median number of ecstasy pills used in a 'typical' session remained at two. Among those who reported using ecstasy pills in the previous six months (n = 78), 20% reported using more than two pills in a usual session. Among those who reported using ecstasy of any form in the previous six months (n = 98), three-quarters (77%) used at least fortnightly and 44% reported using at least weekly. The median frequency of ecstasy pill use was twelve times in the previous six months (n = 77, range 1–54), similar to that of capsules and MDMA crystal. Powder use was less frequent (five times in six months).

Table 5: Patterns of ecstasy use, 2013–17

	2013 (n=88)	2014 (n=100)	2015 (n=85)	2016 (n=92)	2017 (n=100)
% Ecstasy (any form) in last six months [a]	100	94[a]	98 [a]	97 [a]	**98**
Mean age first used ecstasy (any form)	17.3	18.5	18.5	18.4	**17.1**
Median days used any form in last 6 months[b]	14	10	12	13	**16**
% Use weekly or more in last six months [b]	33	30	33	36	**33**
Median pills in 'typical' session [b]	2	2	2	2	**2**
% Typically use >1 pill [b]	83	78	74	71	**84↑**
% Favourite drug	46	29	38	40	**25↓**
% Ever injected ecstasy	3	12	-	-	**0**
% Mainly swallowed ecstasy recently [b]	75	84	73	-	**83**
% Mainly snorted ecstasy recently [b]	25	13	20	-	**51**
% Mainly injected ecstasy recently [b]	0	2	0	-	**0**
% Recently binged on ecstasy [b,c]	36	23	36	36	**23↓**
% Used other drugs with ecstasy [b]	92	82	85	99	**73↓**

[a] Criteria for recruitment changed in 2013 from people who had used ecstasy six or more times in the previous six months (2005–12) to include people who had used any psychostimulant six or more times in the previous six months.

[b] Among those who reported using ecstasy in the previous six months (n = 89).

[c] Used for > 48 hours without sleep

Note: Arrow symbol signifies a significant difference between 2016 and 2017 ($p < 0.05$).

Source: QLD EDRS participant interviews

4.2.2 Forms of ecstasy recently used and route of administration

Nearly all participants (98%) reported recent use of a form of ecstasy. As shown in Table 2, MDMA crystal was the most commonly-used form (78%, up from 68% in 2016, $p < 0.05$). Recent use of pills (78%), was higher than in 2016 (67%, $p < 0.05$). Use of powder was 28%, down from 34% in 2016 and use of capsules in 2017 (71%) was up from use in 2016 (64%).

Swallowing remained the main route of administration for all forms of ecstasy, followed by snorting (Table 2). There were no reports of recently injecting crystal MDMA. Smoking of MDMA and shelving/shafting were reported by two participants each.

4.2.3 Poly-drug use of regular ecstasy and other psychostimulant users

As in previous years, the majority of participants reported engaging in poly-drug use (Table 6). Most of those who used ecstasy recently reported that, on the most recent occasion they used ecstasy, they also used a least one other drug, most commonly alcohol, cannabis or tobacco.

About a third of all participants (35%) reported 'bingeing' (i.e. using drugs for more than 48 hours or more without sleep). Substances most often used during a 'binge' included ecstasy, alcohol (more than five standard drinks), cannabis and tobacco.

Table 6: Substances used on last occasion, and when bingeing, 2017

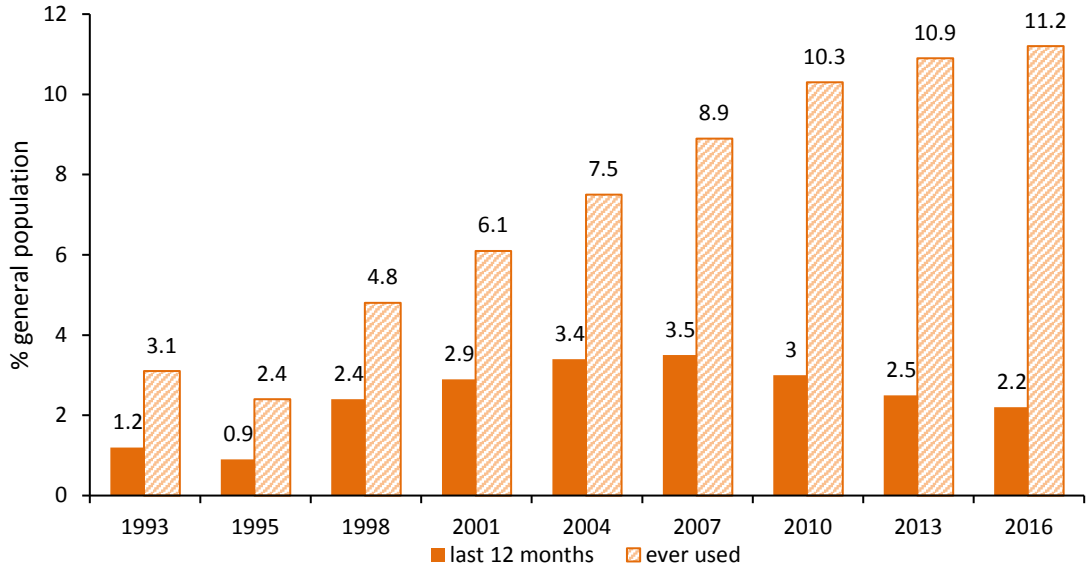
	Last occasion (n=96) %	While bingeing (n=35) %
Ecstasy	73	23
Alcohol >5 standard drinks	59	21
Tobacco	63	26
Cannabis	62	22
Cocaine	12	12
LSD	17	9
Alcohol <5 standard drinks	25	5
Ice	4	7
Nitrous oxide	6	4
Energy drinks	14	8
Speed	0	3
Base	0	0
Benzodiazepines	1	1
Pharmaceutical stimulants	5	3
Mushrooms	2	0
Ketamine	10	2
Amyl nitrite	1	2
MDA	3	4
Over-the-counter codeine	0	3
Other	6	4

[a] 2C-B, Caffeine, DXM, unknown capsule; [c] Caffeine, DMT, unknown capsule
Note: Multiple responses permitted
Source: QLD EDRS participant interviews

4.2.4 Ecstasy use in the general population

The most recent (2016) National Drug Strategy Household Survey (NDSHS) reported a decrease since 2007 in recent (last 12 months) use of ecstasy among the general Australian population aged 14 years and older (Figure 3), although lifetime use continued its gradual increase. Reported use of ecstasy in the previous 12 months was estimated at 2.2% of the general population, which was significantly less than the 3% reported in 2010 (AIHW, 2014, Online Tables 5.2, 5.3, 5.7). Use in the 20–29 year age group (the group most similar to the EDRS participants) for the last year was 7.0%. Average age of initiation for ecstasy use in the general population was 21.7 years; this is slightly older than the EDRS cohort (mean initiation age 18.5 years).

Figure 3: Prevalence of ecstasy use among the Australian population aged 14 years and over, 1993–2016



Source: National Drug Strategy Household Survey (NDSHS) 1988–2016 (AIHW, 2017)

4.3 Methamphetamine use

Key Points

- Recent use of ice was lower than 2016 while use of powdered methamphetamine (speed) increased.
- There was no increase in reports of lifetime use of ice.
- Frequency of ice use in the previous six months remained occasional.

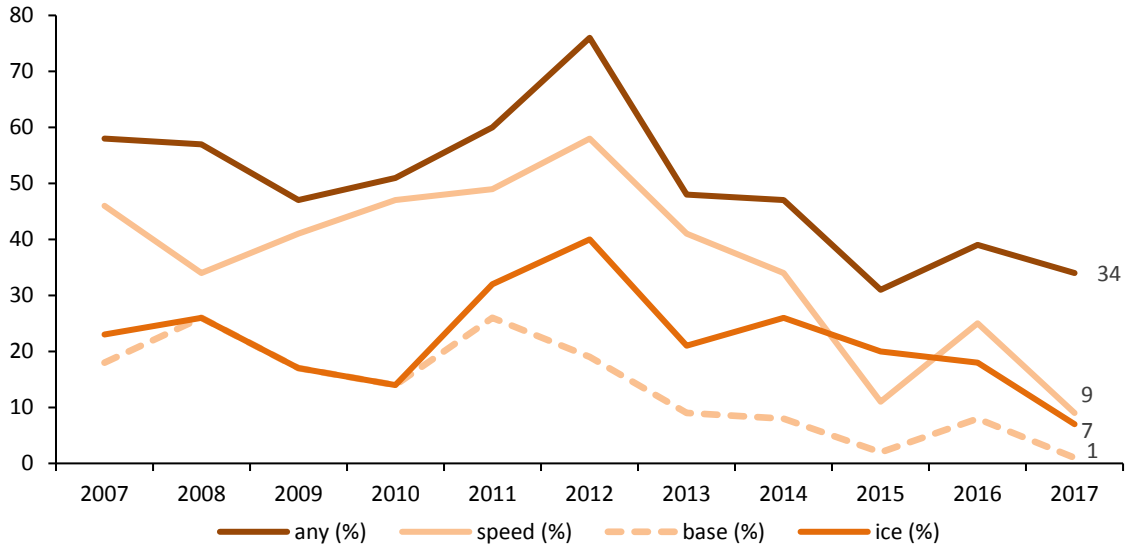
4.3.1 Patterns of methamphetamine use among regular psychostimulant users

Participants were asked about their consumption of methamphetamine in three different forms:

- Amphetamine powder (speed)
- Methamphetamine base (base)
- Crystalline methamphetamine (ice).

Figure 4 presents trends of recent methamphetamine use among participants over the last decade. In 2017, only 34% of participants reported lifetime use of any form of methamphetamine, with 14% reporting recent use; both were lower than 2016 reports (67% and 39% respectively, $p < 0.05$ for both). In 2016 and 2017, speed returned to being the type of methamphetamine most used in the previous six months.

Figure 4: Patterns of recent methamphetamine use according to type, 2007–17

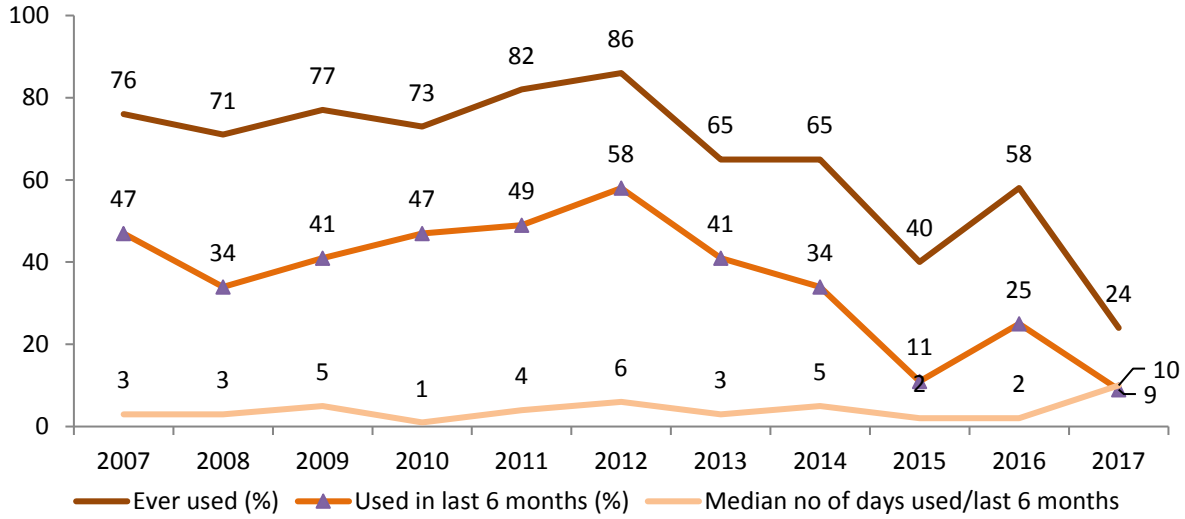


Source: QLD EDRS participant interviews

4.3.2 Speed use

Figure 5 shows that in 2017, the proportion of participants reporting lifetime and recent use of speed decreased, continuing the downward trend in recent use since 2012. Frequency of speed use was estimated at ten days (n = 9, range 1–48 days) over the previous six months.

Figure 5: Patterns of amphetamine powder (speed) use, 2007–17



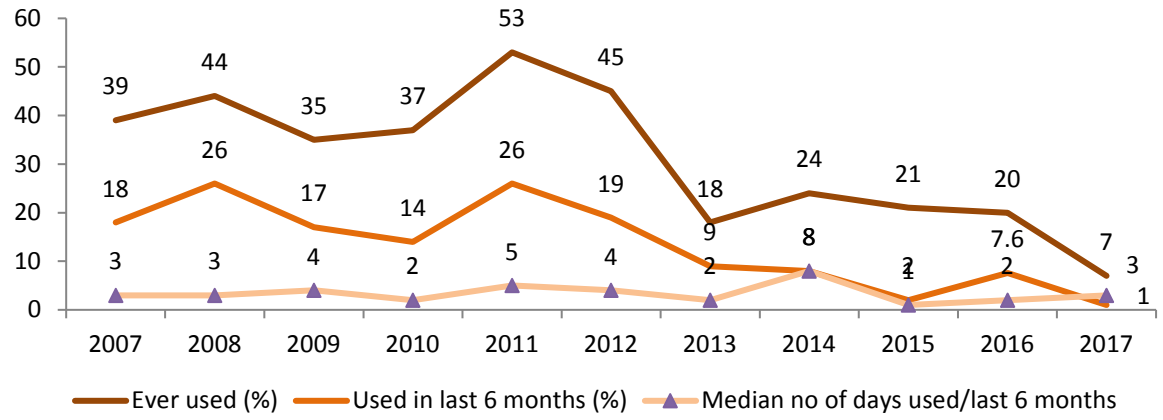
Source: QLD EDRS participant interviews

Among those who reported the amount used in a typical session in points (0.1 grams) and grams, the median number of points used was two (n = 3, range 1–6 points). One participant reported the amount in lines (one or two lines in a typical session). These figures were identical for the largest amount used in one session.

4.3.3 Base use

Lifetime use of base was lower than reports in 2016 (Figure 6). Recent use was low in 2017, reported by only one participant, who reported using on three days in the last six months.

Figure 6: Patterns of methamphetamine base use, 2007–17

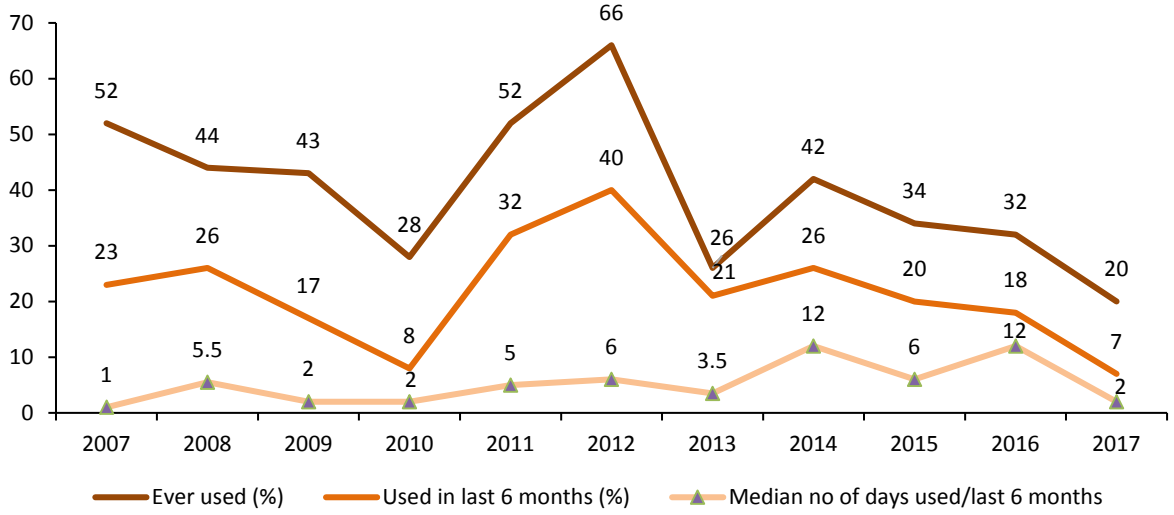


Source: QLD EDRS participant interviews

4.3.4 Ice use

The proportions of participants who reported lifetime (20%) and recent (7%) use of ice decreased from 2016 (Figure 7). In addition, the frequency of ice use decreased from a median of 12 days in 2016 to 2 days in 2017, representing very occasional use.

Figure 7: Patterns of crystalline methamphetamine (ice) use, 2007–17



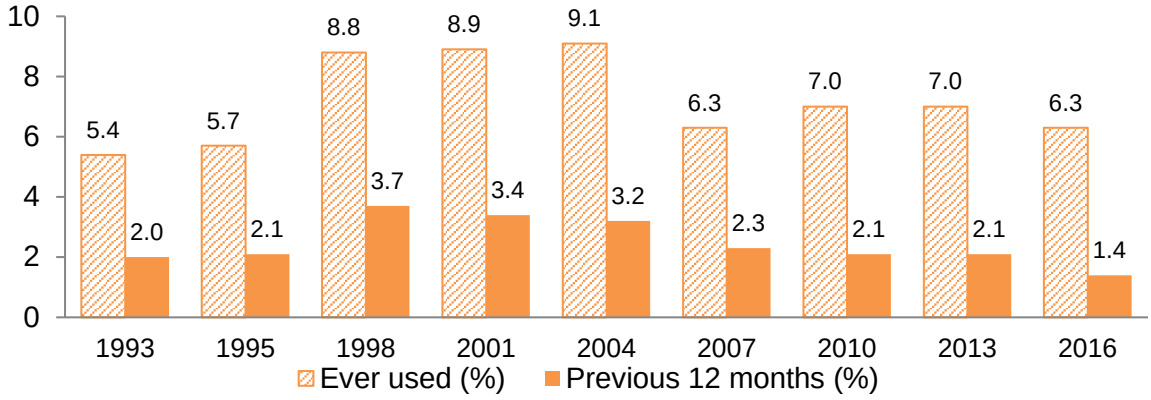
Source: QLD EDRS participant interviews

Among those who reported the amount of ice used in a typical session in points (0.1 g), the median number of points used was three (n = 6, range 0.10–15 points). In a heavy session, the median number of points used was 4.5 (n = 6, range 0.20–15 points).

4.3.5 Prevalence of methamphetamine use in the general population

Lifetime methamphetamine use in the general population is estimated by the NDSHS at approximately 6%, with use in the previous year at 1.4% (Figure 8). This is somewhat similar to previous years (AIHW, 2017, Online Tables 5.2 and 5.3).

Figure 8: Prevalence of methamphetamine use among the Australian population aged 14 years and over, 1993–2016



Source: NDSHS 1993–2016 (AIHW, 2017)

4.4 Cocaine use

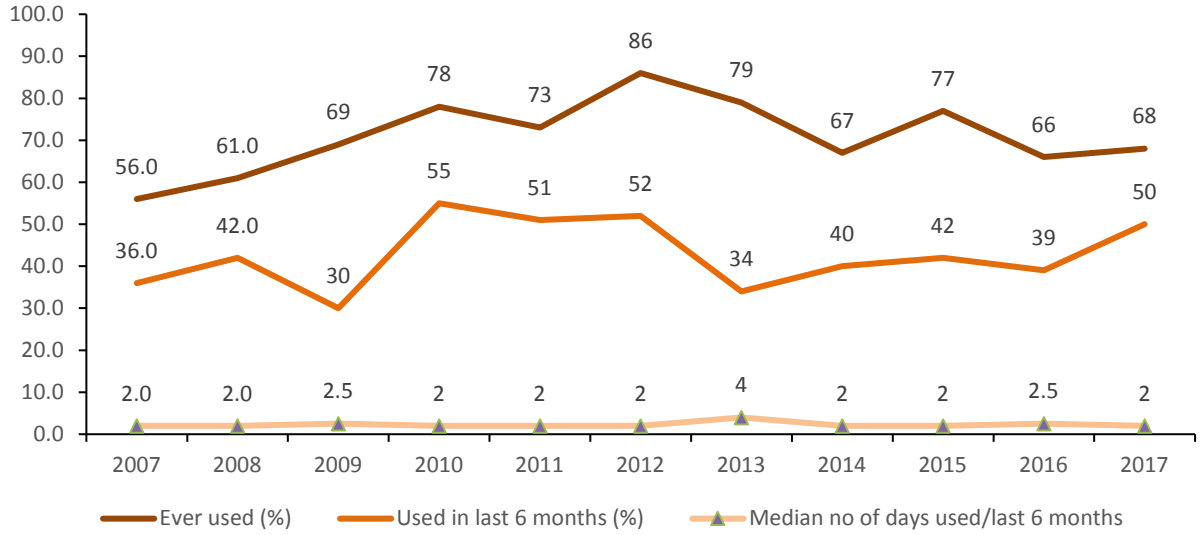
Key points

- Lifetime cocaine use remained stable (68%) while recent use increased (50%).
- Frequency of use remained low and occasional.

4.4.1 Patterns of cocaine use among regular psychostimulant users

Reports of lifetime use of cocaine remained stable, with over two-thirds reporting having ever used, and half reporting use in the previous six months (Figure 9). Frequency of use remained constant at a median of 2 days in the previous six months, corresponding to occasional use.

Figure 9: Patterns of cocaine use, 2007–17



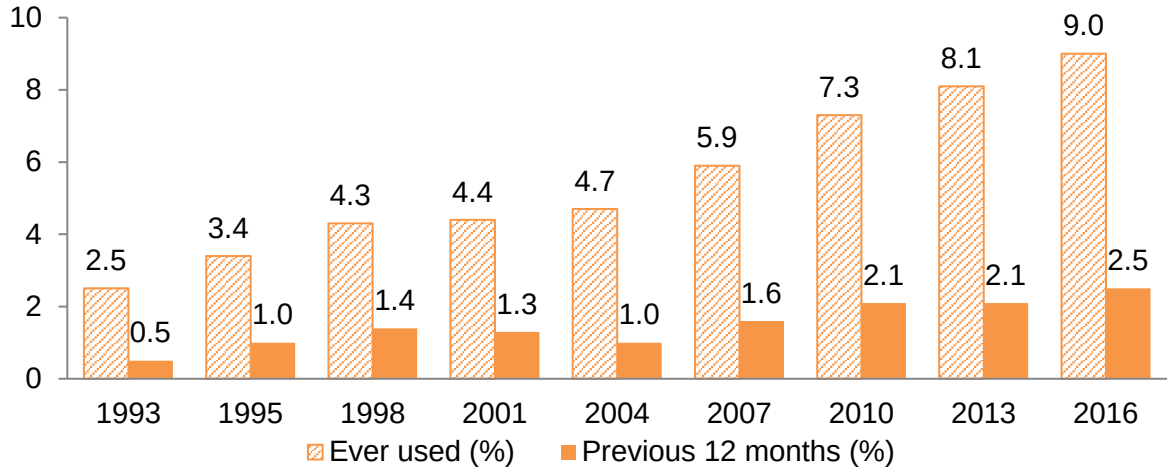
Source: QLD EDRS participant interviews

Among those who reported the amount used in a typical session in grams and lines, the median amount was 0.5 grams (n = 18, range 0.15–3 grams) or 2 lines (n = 20, range 1-7 lines). A heavy session ranged from 0.15–3.50 grams (n=18) or 1-15 lines (n=20).

4.4.2 Prevalence of cocaine use in the general population

Figure 10 shows the upward trend of lifetime cocaine use estimated for the general population aged 14 years and older, based on reports in the NDSHS. Cocaine use in the previous 12 months has remained stable at 2.5% (AIHW 2017, Online Tables 5.2 and 5.3).

Figure 10: Prevalence of cocaine use among the Australian population aged 14 years and over, 1993–2016



Source: NDSHS 1993–2013 (AIHW, 2017)

4.5 Ketamine use

Key points

- One in five participants (21%) had recently used ketamine and frequency of use remained low.

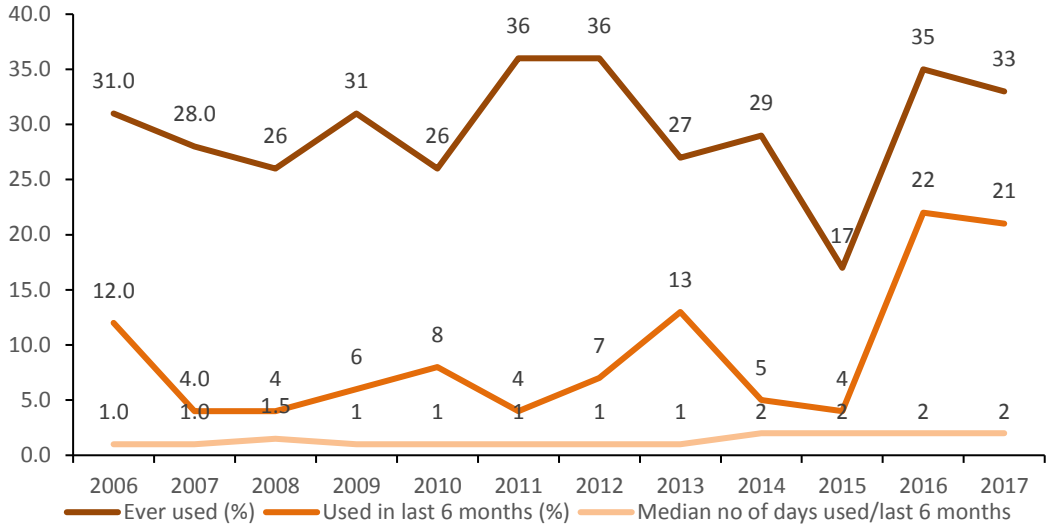
4.5.1 Patterns of ketamine use among regular psychostimulant users

One third (33%) of participants had used ketamine in their lifetime, and 21% reported recent use (Figure 11). As in previous years, the frequency of use has remained very low. Median use was three bumps in a typical session (n = 11, range 1–10 bumps), and also three bumps in a heavy session (n = 12, range 1–10 bumps).

4.5.2 Ketamine use in the general population

The 2016 NDSHS (AIHW, 2017, Online Table 5.3) estimated the lifetime use of ketamine among the general population 14 years and older to be at 0.1%, with 0.4% reporting use in the previous 12 months. Use of ketamine in the general population has remained low over the past decade.

Figure 11: Patterns of ketamine use, 2007–17



Source: QLD EDRS participant interviews

4.6 GHB use

Key points

- Neither lifetime nor recent use of GHB were reported by participants in 2017.

4.6.1 Patterns of GHB use among regular psychostimulant users

Neither lifetime nor recent use of GHB were reported by participants in 2017. In 2016, 15% of participants reported ever using GHB, with only 7% reporting recent use, and most using only on one occasion.

4.6.2 GHB use in the general population

Among the general population aged 14 years and over, the NDSHS estimated that the lifetime use of GHB has remained low, at or below 1% in the past decade (1% in 2016). Use in the previous 12 months was reported to be 0.1%, which was the same as 2013 (AIHW 2017, Online Tables 24 and 25).

4.7 Hallucinogen use

Key Points

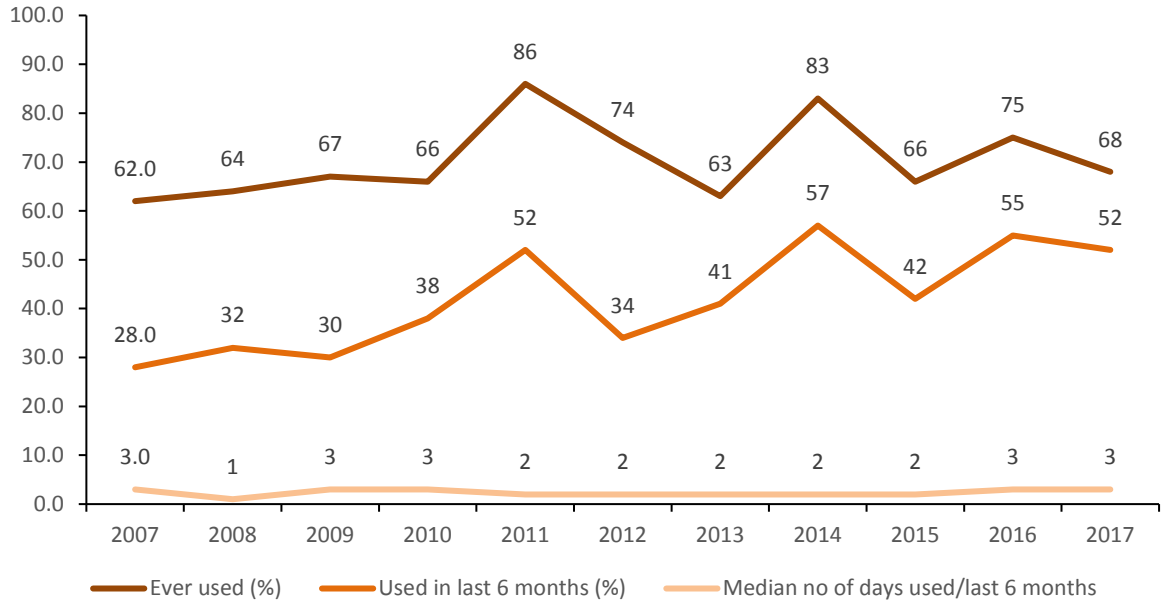
- Recent use of LSD was 52%, similar to 2016 (55%). Lifetime use of LSD (68%) decreased from 2016 (75%).
- Frequency of LSD use remained low, with median use being three times in the previous six months.
- 1.5 LSD tabs was the median amount used in a typical session.
- Over half reported lifetime use of hallucinogenic mushrooms, with one-third having used them in the previous six months. Frequency of use was occasional.

In this section, participants were asked about their use of 'traditional' hallucinogens, LSD and mushrooms. Other drugs with hallucinogenic effects are reported in the NPS section.

4.7.1 Patterns of LSD use among regular psychostimulant users

Figure 12 shows that lifetime use of LSD was reported by 75% of participants in 2016. Recent use increased to 55% in 2016 from 42% in 2015 ($p < 0.05$). Frequency of use remained occasional at a median of three days in the previous six months.

Figure 12: Patterns of LSD use, 2007-2017



Source: QLD EDRS participant interviews

Table 7 shows the quantity of LSD tabs reported to have been used. In 2017, 1.5 tabs was the median amount used in a typical session, with two tabs used in a heavy session.

Table 7: Median tabs of LSD used in a session in the last six months, 2007-17

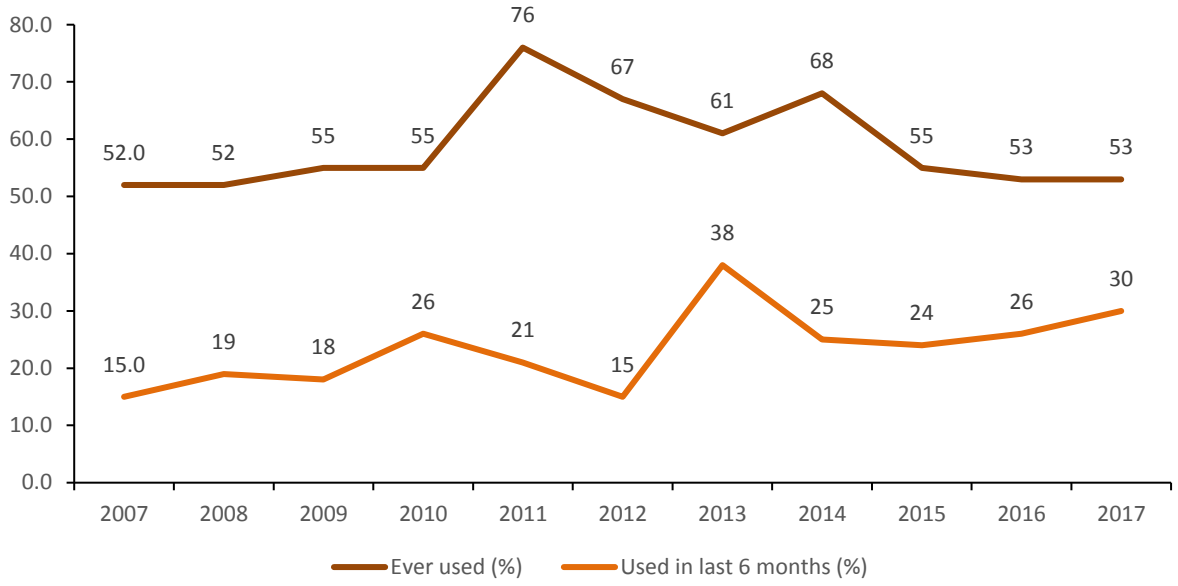
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Typical (range)	1.0 (.5–5)	1.0 (.5–3.5)	1.0 (.5–4)	1.0 (1–5)	1.0 (.5–3)	2.0 (1–4)	1.0 (.5–6)	1.0 (.3–5)	1.0 (.25–3)	1.0 (0.5–2)	**1.5 (.5–8)**
Heavy (range)	1.0 (.5–6)	1.0 (.5–4)	1.0 (1–4)	2.0 (1–11)	1.0 (.5–5)	2.0 (1–4)	1.3 (.5–12)	2.0 (.5–8)	1.0 (1–3)	2.0 (1–5)	**2.0 (.5–8)**

Source: QLD EDRS participant interviews

4.7.2 Mushroom use

The lifetime and recent use of hallucinogenic mushrooms remained stable, with over half reporting lifetime use and one-third reporting use in the previous six months (Figure 13). Frequency of use was estimated at 1.5 days in the previous six months (n = 30, range 1–6 days).

Figure 13: Patterns of mushroom use, 2007–17



Source: QLD EDRS participant interviews

4.7.3 Hallucinogen use in the general population

The 2016 NDSHS estimated the lifetime use of hallucinogens among the general population aged 14 years and older to be at 9.4%, with use in the previous 12 months to be at 1% (AIHW, 2017, Online Table 24 and 25). This was similar to previous years.

4.8 Cannabis use

Key points

- Use of cannabis has remained high and stable with 93% reporting use in the previous six months.
- Frequency of use increased to three to four times per week but amounts used per occasion were similar to reports from 2016

4.8.1 Patterns of cannabis use among regular psychostimulant users

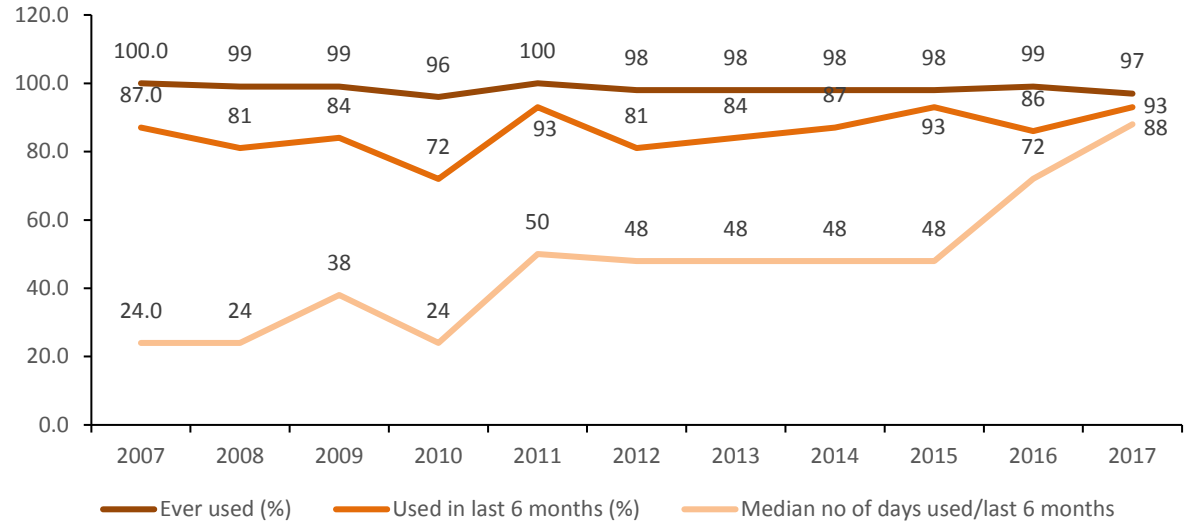
In 2017, use of cannabis remained high and stable, with almost all participants (97%) reporting lifetime use and 93% reporting use in the previous six months (Figure 14). In 2017, the median number of days of cannabis use in the previous six months rose to 87.50 ($p<0.05$), corresponding to three to four times a week (n = 92, range 1–180). The mean age of first use of cannabis was stable at 15 years (n = 97, range 11–19).

Among those who reported recent cannabis use (n = 93), smoking remained the main route of administration (96%), followed by inhaling (22%) and eating (18%). The levels of inhaling (vaping) were lower than those seen in 2016.

Participants were asked the amount of cannabis used on the most recent occasion in the previous six months. The median amount varied depending on the unit used but reports were similar to 2016:

- Joints: two (n = 22, range 1-4)
- Cones: four (n = 50, range 1-20)
- Grams: one (n = 18, range .50-5)

Figure 14: Patterns of cannabis use, 2007–17



Source: QLD EDRS participant interviews

Among participants who reported recent use of cannabis (n = 93), 20% reported using every day in the previous six months (Table 8). This has remained stable in recent years.

Table 8: Frequency of cannabis use in the last six months, 2007–17

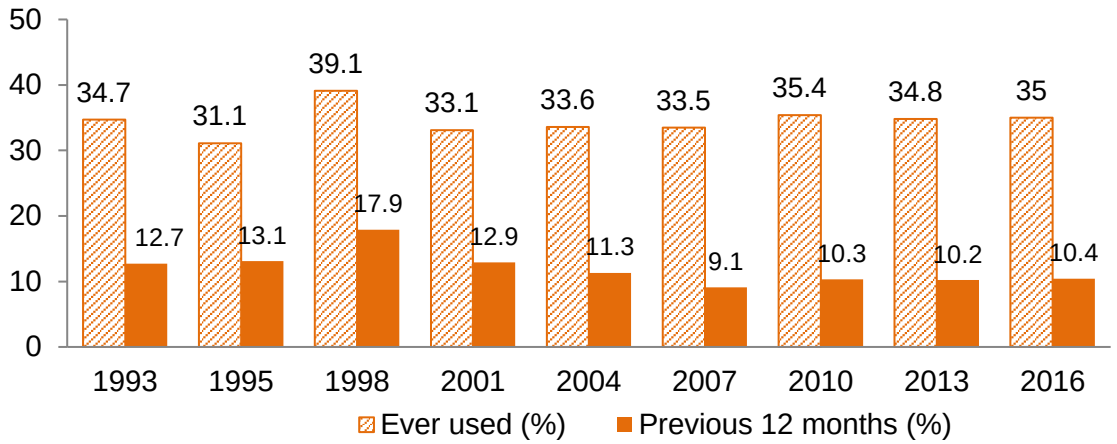
	2007 (n=88) %	2008 (n=87) %	2009 (n=74) %	2010 (n=73) %	2011 (n=101) %	2012 (n=50) %	2013 (n=74) %	2014 (n=87) %	2015 (n=79) %	2016 (n=79) %	**2017 (n=92) %**
Daily	21	22	24	14	20	26	23	18	25	30	**20**
> Weekly	26	23	28	29	33	32	41	40	37	42	**48**
Weekly	7	12	8	14	6	8	10	7	2	11	**7**
< Weekly	46	44	39	44	41	34	23	34	28	16	**24**

Note: Based on participants who used cannabis in the previous six months. Daily = 180 days; more than weekly = 25–179 days; weekly = 24 days; and less than weekly = 1–23 days.
Source: QLD EDRS participant interviews

4.8.2 Cannabis use in the general population

The NDSHS report shows that lifetime and recent use of cannabis among the general population has remained stable over the past decade (Figure 15; AIHW, 2017, Online Tables 5.2 and 5.3).

Figure 15: Prevalence of cannabis use among the Australian population aged 14 years and over, 1993–2016



Source: NDSHS 1993–2013 (AIHW, 2017)

4.9 Other drugs used

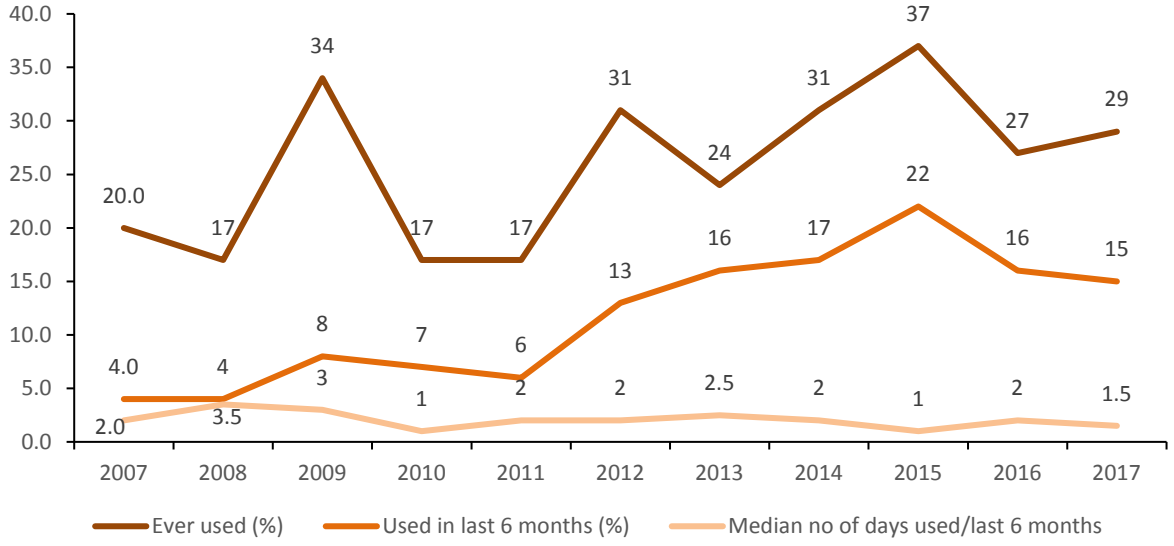
Key Points

- The use of alcohol and tobacco remained high, frequent and stable.
- Use of MDA was low and occasional.
- There was little change in lifetime and recent use of licit benzodiazepines.
- Heroin, buprenorphine and methadone use remained low.
- There was a small increase in recent illicit use of other opioids, with 27% reporting doing so in the previous six months
- Recent use of pharmaceutical stimulants (licit or illicit) was unchanged.

4.9.1 MDA use

In 2017, MDA use was low and occasional, similar to recent years (Figure 16). Lifetime use was reported by 29%, with 15% reporting use in the previous six months. The average amount used in a session was 1.5 caps (n = 4, range 1–2 caps), with the most used in a single session in the previous six months estimated at two caps (n = 4, range 1–2 caps).

Figure 16: Patterns of MDA use, 2007–17

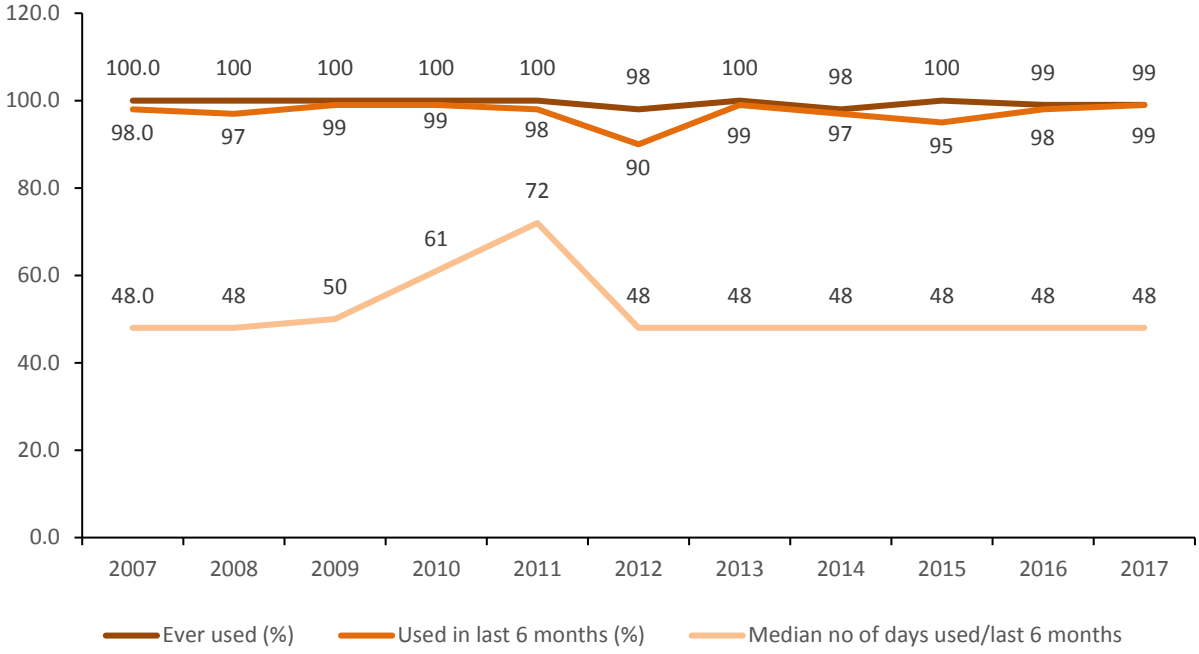


Source: QLD EDRS participant interviews

4.9.2 Alcohol

Similar to previous years, lifetime and recent use of alcohol remained high and frequent in 2017 (Figure 17). All participants but one had used alcohol in their lifetime and had used it in the previous six months. Over the past decade, the mean age of first use has been stable (14 years in 2017).

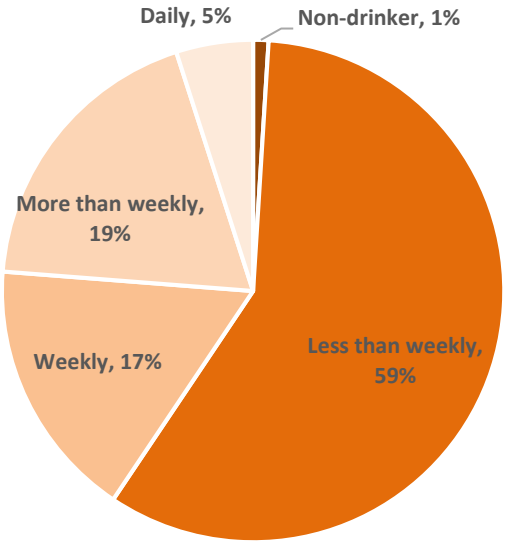
Figure 17: Patterns of alcohol use, 2007–17



Source: QLD EDRS participant interviews

Figure 18 shows frequency of alcohol use reported in the previous six months. The median number of days used was 48, corresponding to twice a week (n = 99, range 3–180 days).

Figure 18: Frequency of alcohol use, 2017



Note: Based on participants who used alcohol in the previous six months (n = 99). Daily = 180 days; more than weekly = 25–179 days; weekly = 24 days; less than weekly = 1–23 days.
Source: QLD EDRS participant interviews

Among those who reported using other substances on the most recent occasion they used ecstasy (n = 96), 25% reported they had consumed between one and five standard drinks, while 59% reported they had consumed more than five standard drinks.

Alcohol use in the general population

Results from the recent NDSHS show the continued, significant decrease in frequency of alcohol consumption among the general population aged 14 years and older (Table 9).

Table 9: Alcohol drinking status of the Australian population 14 years and older (%), 1993–2016

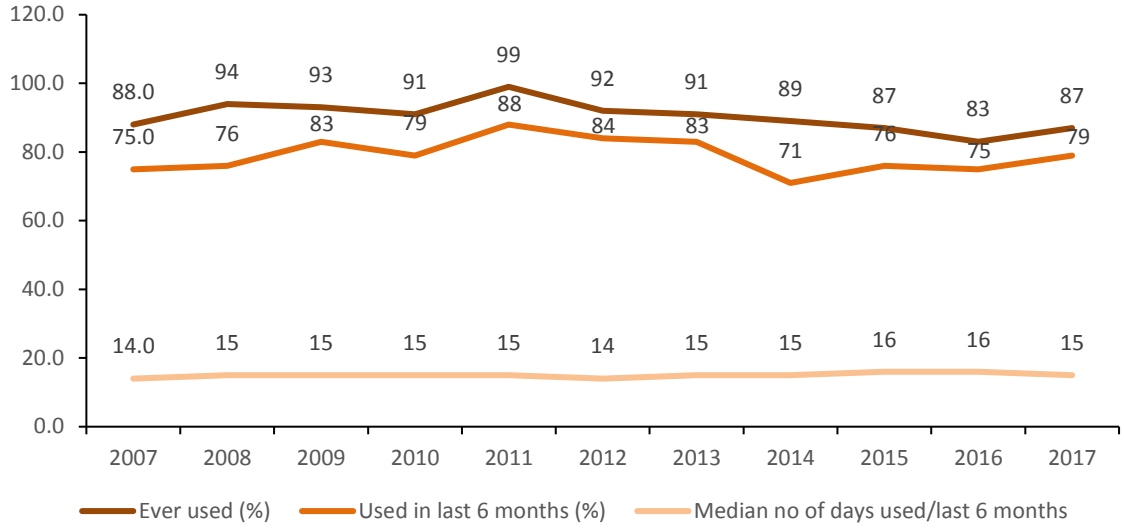
	1993	1995	1998	2001	2004	2007	2010	2013	2016
Daily	8.5	8.8	8.5	8.3	8.9	8.1	7.2	6.5	5.9*
Weekly	39.9	35.2	40.1	39.5	41.2	41.3	39.5	37.3	35.8*
Less than weekly	29.5	34.3	31.9	34.6	33.5	33.5	33.8	34.5	35.8*
Ex-drinker	9.0	9.5	10.0	8.0	7.1	7.0	7.4	8.0	8.0
Never a full serve	13.0	12.2	9.4	9.6	9.3	10.1	12.1	13.8	14.5

* Statistically significant change between 2013 and 2016
Source: NDSHS 1993–2016 (AIHW, 2017, Online Table 14)

4.9.3 Tobacco

In 2017, tobacco use remained common among participants (Figure 19), similar to 2016. Among those who reported using tobacco in the previous six months (n = 79), 34% reported daily use. The median number of days of use was 90 days or every second day. The mean age of initiation for tobacco was 15 years (n = 87, range 8–20 years). This was similar to previous years.

Figure 19: Patterns of tobacco use, 2007–17



Source: QLD EDRS participant interviews

Tobacco use in the general Australian population

The 2016 NDSHS noted an increase in ex-smokers and lifetime abstinence from tobacco use among the general population aged 14 years and older since the previous survey in 2013 (AIHW, 2017, Online Table 3.1). This follows the continued decline in tobacco use over the past decade (Table 10).

Table 10: Smoking status of the Australian population 14 years and over, 1993–2016

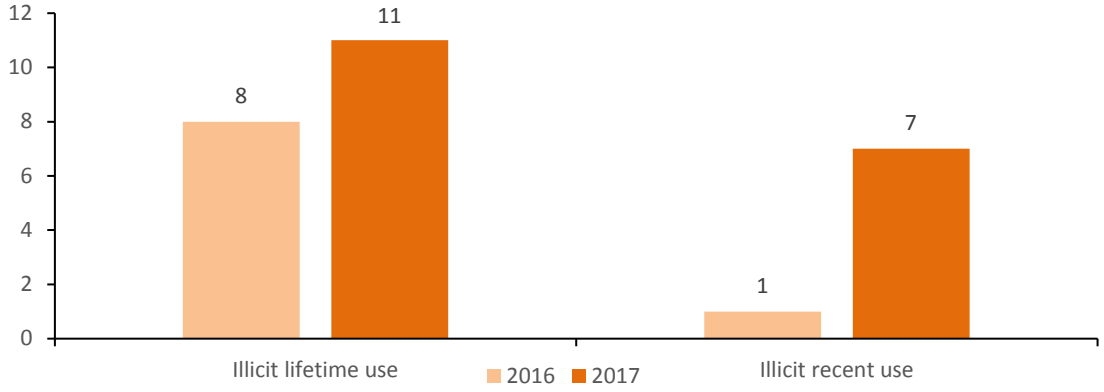
Frequency	1993 %	1995 %	1998 %	2001 %	2004 %	2007 %	2010 %	2013 %	2016 %
Daily	25.0	23.8	21.8	19.5	17.4	16.6	15.1	12.8	12.2
Weekly	2.3	1.6	1.8	1.6	1.6	1.3	1.5	1.4	1.3
Less than weekly	1.8	1.8	1.3	2.0	1.6	1.5	1.4	1.6	1.4
Ex-smoker [a]	21.7	20.2	25.9	26.2	26.4	25.1	24.1	24.0	22.8*
Never smoked [b]	49.1	52.6	49.2	50.6	52.9	55.4	57.8	60.1	62.3*

* Statistically significantly different between 2013 and 2016
[a] Smoked at least 100 cigarettes in lifetime and no longer smoke
[b] Never smoked more than 100 cigarettes in lifetime
Source: NDSHS 1993–2016 (AIHW, 2017)

4.9.4 Antidepressants

The prevalence of lifetime illicit use of anti-depressants remained similar between 2016 and 2017 (Figure 20). Prescribed use was not queried in 2017. Seven participants reported illicit use of anti-depressants in the previous six months.

Figure 20: **Lifetime and recent illicit use of anti-depressants, 2016 and 2017**



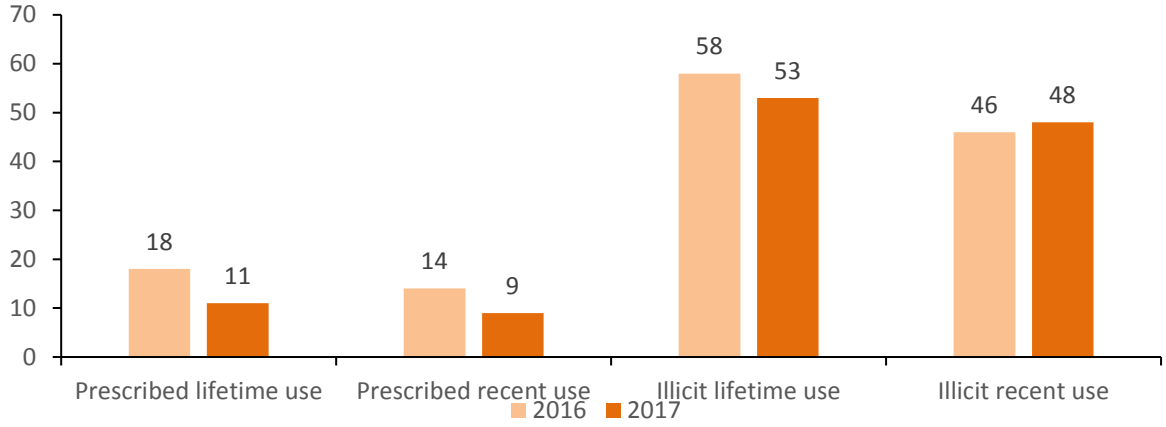
Source: QLD EDRS participant interviews

4.9.5 Benzodiazepines

Lifetime and recent licit use of benzodiazepines were both low and stable in 2017 (Figure 21). Similar to 2016, nearly half of participants (48%) reported non-prescribed use in the last

six months. The median number of days using illicit benzodiazepines was three (n = 48, range 1–16 days), corresponding to less than monthly use. Among those who reported illicit use of benzodiazepines in the previous six months (n = 48), the brands most commonly used without a prescription were Valium (diazepam; 50%), Xanax (alprazolam; 33%) and Serepax (3%), with 26% of respondents not reporting the brand most commonly used. There were no reports of benzodiazepine use in conjunction with ecstasy on the last occasion of use.

Figure 21: Lifetime and recent use of benzodiazepines, 2016 and 2017

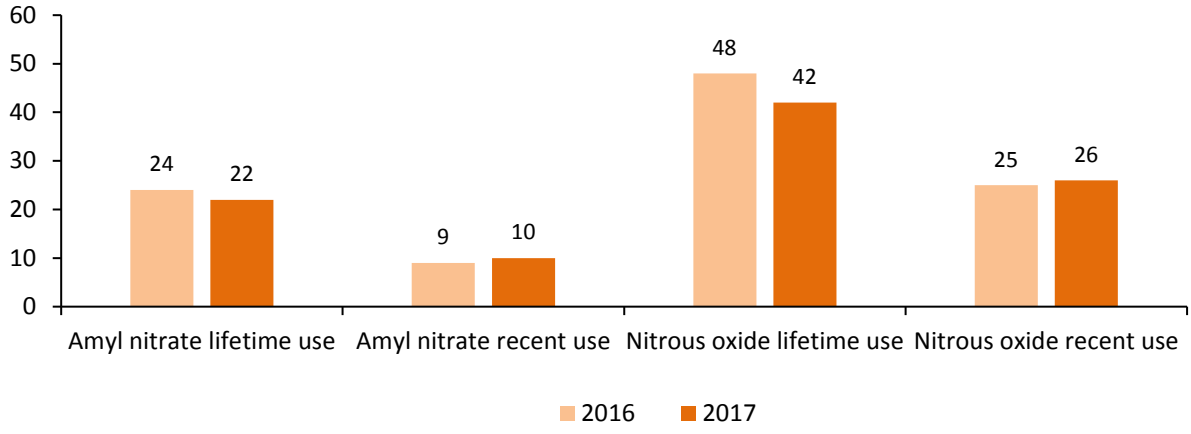


Source: QLD EDRS participant interviews

4.9.6 Inhalant use

Lifetime and recent use of amyl nitrite and nitrous oxide remained similar to 2016 reports (Figure 22), with 10% of participants reporting recent use of amyl nitrite and one quarter (26%), recent use of nitrous oxide, each on a median of three times in the past six months and with a median of four nitrous oxide bulbs used per episode.

Figure 22: Lifetime and recent use of inhalants, 2016 and 2017



Source: QLD EDRS participant interviews

4.9.7 Heroin and other opioids

Heroin

Similar to previous years, the use of heroin remained low among participants. In 2017, 8% of participants reported lifetime use of heroin (the same as 2016), with four participants reporting use in the previous six months. Two participants reported having used once, and the other two participants had used twice in the previous six months, corresponding to occasional use (less than monthly), and having either snorted (75%) or injected (25%) the dose.

Methadone

Lifetime use of methadone was reported by only three participants, as for 2016. One participant reported on recent use—on two days—by swallowing the dose.

Buprenorphine

In 2017, no participants reported having ever used buprenorphine (compared with 3% in 2016).

Other licit opioids

Lifetime use of other opioids (e.g. morphine, oxycodone) obtained under participants' own prescriptions was reported by 27%, with 13% reporting recent use. The median number of days used in the previous six months was seven, corresponding to just over monthly use. The brands used were Endone (n = 7) and Panadeine Forte (n = 5). No participants reported injecting their own prescribed opioids.

Other illicit opioids

In 2017, 34% of participants reported using other opioids not prescribed to them (illicit use), similar to the 39% reported in 2016. Recent illicit use of opioids was reported by 27%, up from 21% in 2016 ($p < 0.05$). The median number of days used in the previous six months was three (n = 27, range 1–72 days), corresponding to less than monthly use. One participant reported injecting opioids in the previous six months. The main brands used were Endone (n = 15), generic oxycodone (n = 4), and Panadeine Forte (n = 3).

4.9.8 Pharmaceutical stimulants

The lifetime use of prescribed (licit) pharmaceutical stimulants (e.g. dexamphetamine) was reported by 9% of participants, unchanged from 2016. Recent use was reported by six participants (also similar to 2016).

Illicit use of pharmaceutical stimulants was reported in 2017 by 68% of participants, similar to 72% in 2016. Recent illicit use was reported by 58% of participants. Frequency of use in

the previous six months was stable at five days, corresponding to near-monthly use (n = 58, range 1–180 days).

Lifetime use of over-the-counter stimulants (e.g. cold and flu drugs) for non-medical/ recreational use was less than previous years (10% in 2017 and 16% in 2016). Seven participants reported using it in the previous six months.

4.9.9 Over-the-counter codeine

In 2017, 36% of participants reported ever using over-the-counter codeine for non-medical use, with 26% reporting recent use. This is more than in previous years (24% ever used and 16% recently used in 2016; $p<0.05$ for both).

4.10 New psychoactive substance (NPS) use

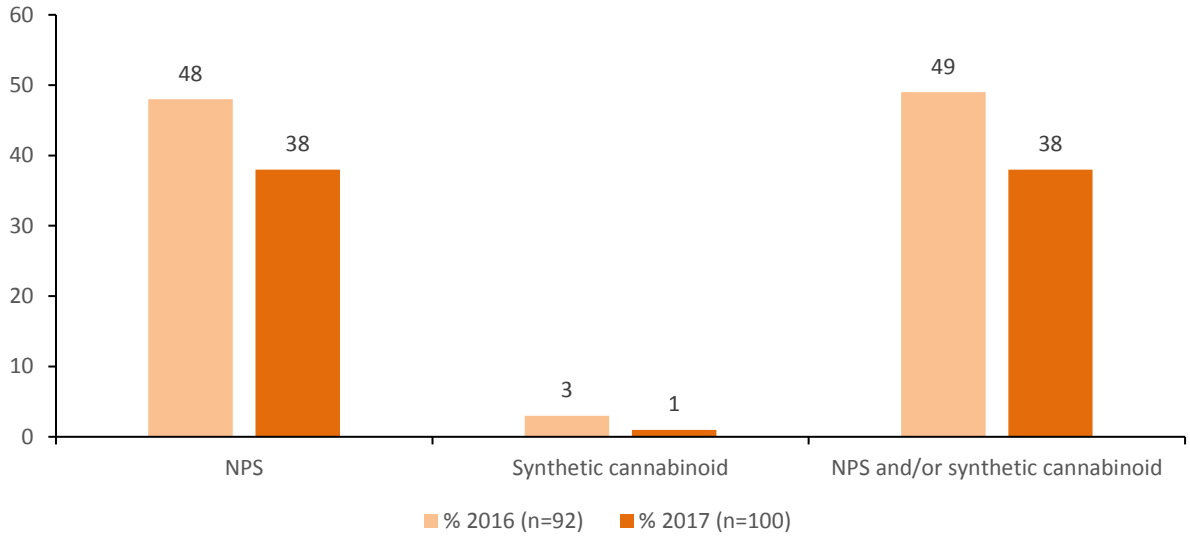
Key points

- Over one-third of participants (38%) reported using some form of NPS and/or synthetic cannabinoids in the previous six months.
- Lifetime and recent use of most NPS remained low, apart from 2C-B and DMT.
- Less than one-fifth (14%) of participants reported lifetime use of synthetic cannabinoids, and recent use was very low at 1%.

4.10.1 Patterns of use among regular psychostimulant users

In 2017, 38 participants reported using NPS and/or synthetic cannabinoids in the previous six months (Figure 23). There appears to have been a decrease since 2016 in recent use of any NPS (38% in 2017 from 47% in 2016), while recent use of synthetic cannabinoids decreased further ($p < 0.05$ for both).

Figure 23: Recent use of any NPS and synthetic cannabinoids, 2016 and 2017



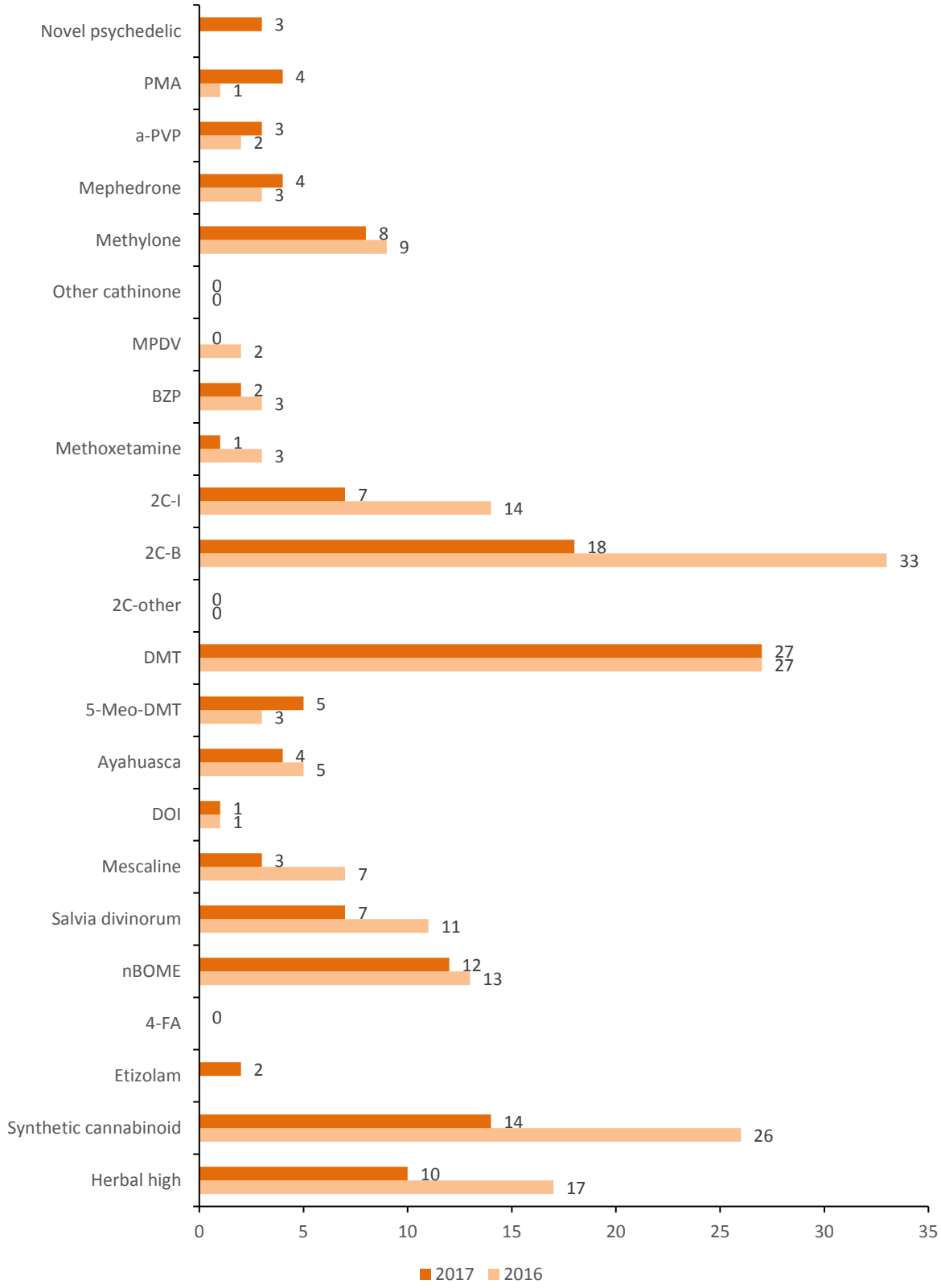
Source: QLD EDRS participant interviews

Figure 24 presents the proportion of participants reporting lifetime use of NPS and synthetic cannabinoids across the last two years. Reports in this sample of lifetime use of 2C-B dropped from 2016 (18% in 2017 from 33% in 2016).

4.10.2 NPS use in the general population

Recording of the use of new and emerging psychoactive substances and synthetic cannabinoids in the NHDS began in 2013. Lifetime use of NPS was estimated at 1% (an increase since 2013), and use in the previous 12 months of NPS was estimated at 0.3% among the general population aged 14 years and older (AIHW, 2017, Online Table 24). Lifetime use of synthetic cannabinoids was estimated at 2.8% (up from 1.3% in 2013), and use in the previous 12 months at 0.3%, a significant reduction from 2013.

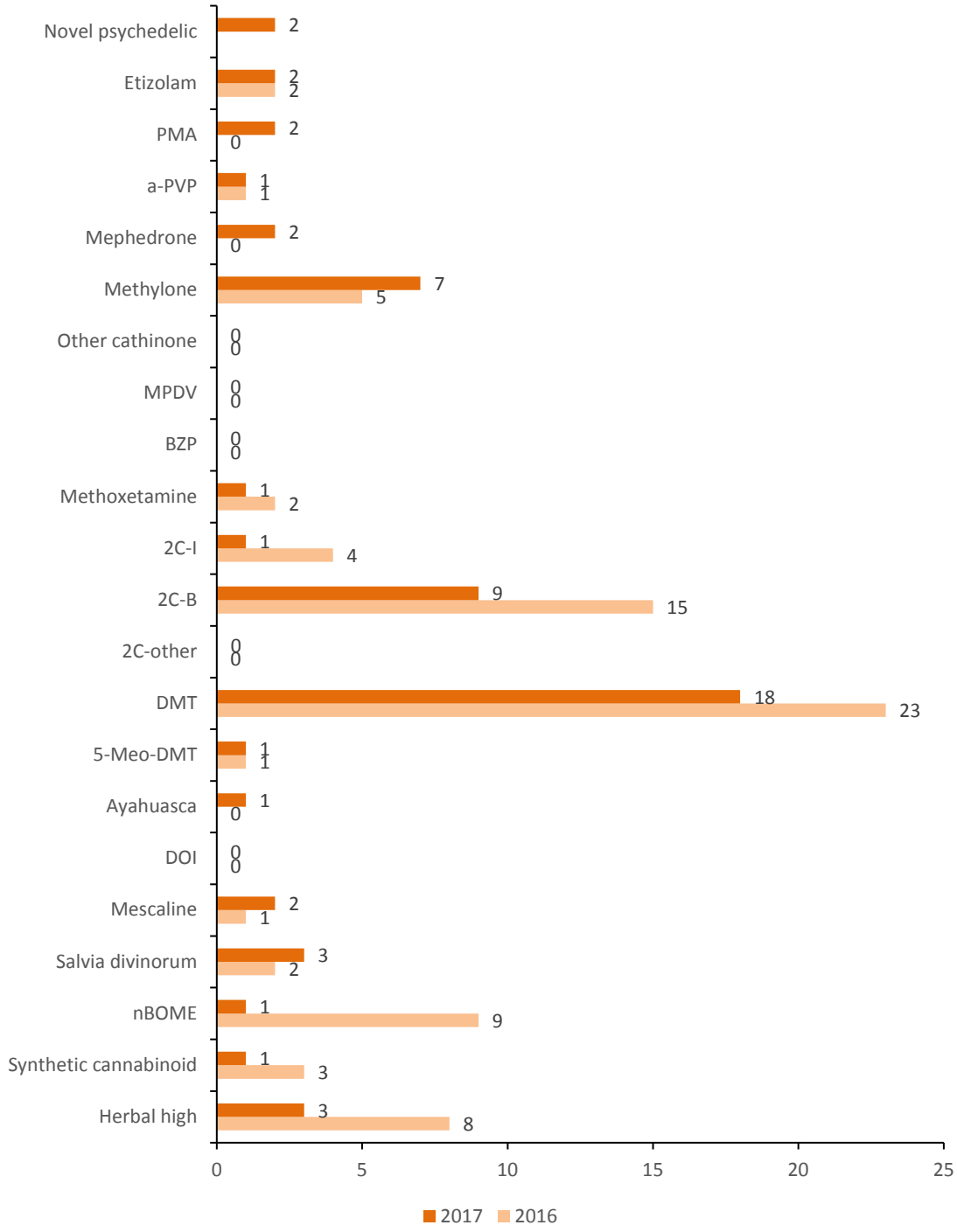
Figure 24: Lifetime use of NPS and synthetic cannabinoids, 2016 and 2017



Note: Multiple responses permitted
MPDV = Ivory Wave/bath salts; MDAI = 5,6-methylenedioxy-2-aminoindane; 5-IAI = 5-iodo-2-aminoindane; BZP = benzylpiperazine; DMT = dimethyltryptamine; LSA = d-lysergic acid amide; DOI = death on impact; DXM = dextromethorphan
Source: QLD EDRS participant interviews

Figure 25 details recent use of all NPS (including synthetic cannabinoids). Recent use of DMT remained stable in 2017 compared with 2016. Other than DMT and 2C-B (18% in 2017), recent use of most NPS and synthetic cannabinoids remained low.

Figure 25: Recent use of NPS and synthetic cannabinoids, 2016 and 2017



Note: Multiple responses permitted
Note: MPDV = Ivory Wave/bath salts; MDAI = 5,6-methylenedioxy-2-aminoindane; 5-IAI = 5-iodo-2-aminoindane; BZP = benzylpiperazine; DMT = dimethyltryptamine; LSA = d-lysergic acid amide; DOI = death on impact; DXM = dextromethorphan
Source: QLD EDRS participant interviews

5 DRUG MARKET: PRICE, PURITY, AVAILABILITY AND SUPPLY

5.1 Ecstasy

Key points

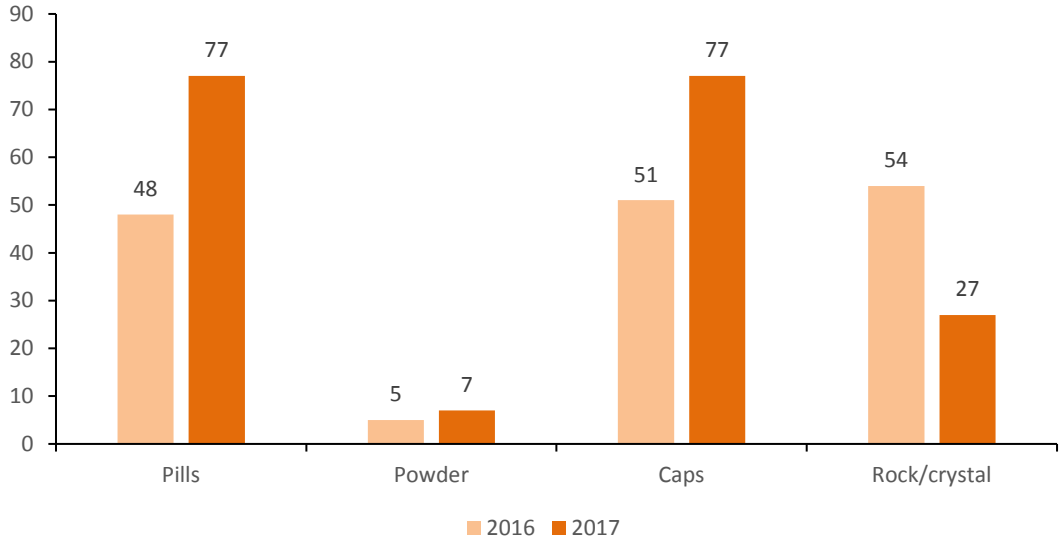
- Pills and capsules were the most common forms of ecstasy purchased.
- Price per ecstasy pill remained stable at $20.
- More participants reported purity of pills, powder and caps to be medium/high, with fewer reports that purity fluctuated.
- MDMA crystal was considered to be of higher purity than pills, powder and caps, with few reports of fluctuation in purity.
- Ecstasy was most likely to have been bought from someone known to the buyer, at a private house.

Since MDMA crystal has been reported to have different price, purity and availability than ecstasy pills, powder and caps, this section has been split into two parts:

- Ecstasy pills, powder and caps (purchase reported by 85% of participants)
- MDMA crystal (purchase reported by 63% of participants).

In 2017, 98% of participants reported purchasing some form of ecstasy/MDMA in the previous six months. Pills and caps were the most popular form of ecstasy purchased, and powder was the least popular form (Figure 26).

Figure 26: Form of ecstasy obtained over the last six months (n = 79), 2017



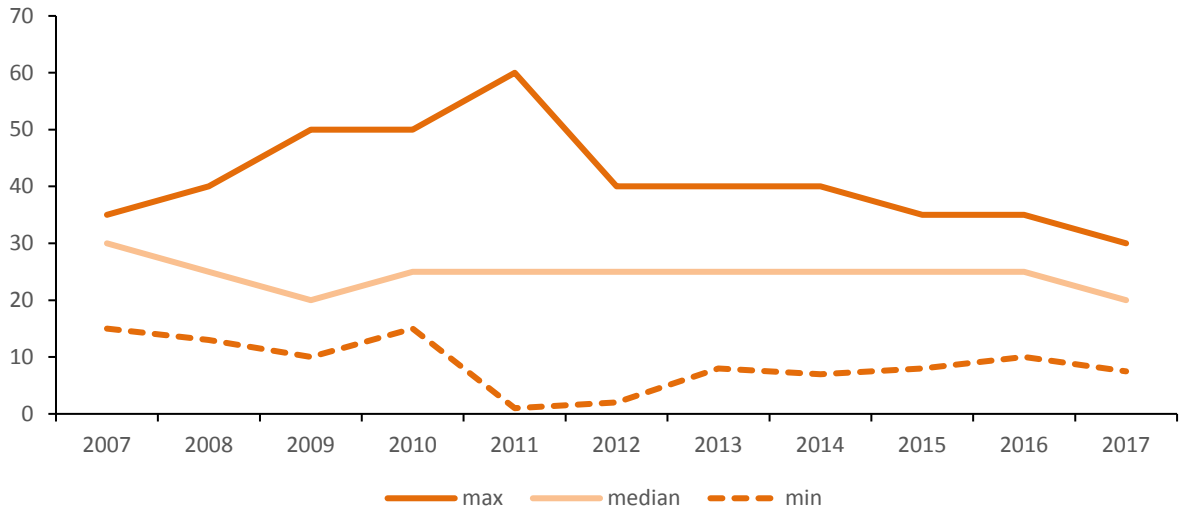
Source: QLD EDRS participant interviews

5.1.1 Price

Ecstasy pills, powder and caps

The median price of ecstasy pills dropped for the first time since 2010 to $20 per pill (n = 77, range $7.50–30; see Figure 27).

Figure 27: Price of ecstasy per tablet, 2007–17



Source: QLD EDRS participant interviews

These prices were slightly lower than those reported by the Australian Crime Commission (ACC; 2017) for 2015–16, where a tablet/capsule was reported to cost between $20–50.

MDMA crystal

In 2014, questions were introduced about the price, purity and availability of MDMA crystal, and in 2017, 27% of participants reported having purchased MDMA crystal during the previous six months.

The median price per gram of MDMA crystal was $150 (n = 25; range $25–300), down from $250 in 2016 ($p < 0.05$), while the price per point was $25 (n = 20; range $10-350). Most participants who commented perceived the price of crystal to have remained stable in the previous six months (66%); with a corresponding decrease of perceived price fluctuation.

Table 11: Perceptions of recent change in price of MDMA crystal, 2016 and 2017

	2016 (n=45) %	2017 (n=61) %
Increasing	0	**10**
Stable	67	**66**
Decreasing	7	**18**
Fluctuating	27	**7**

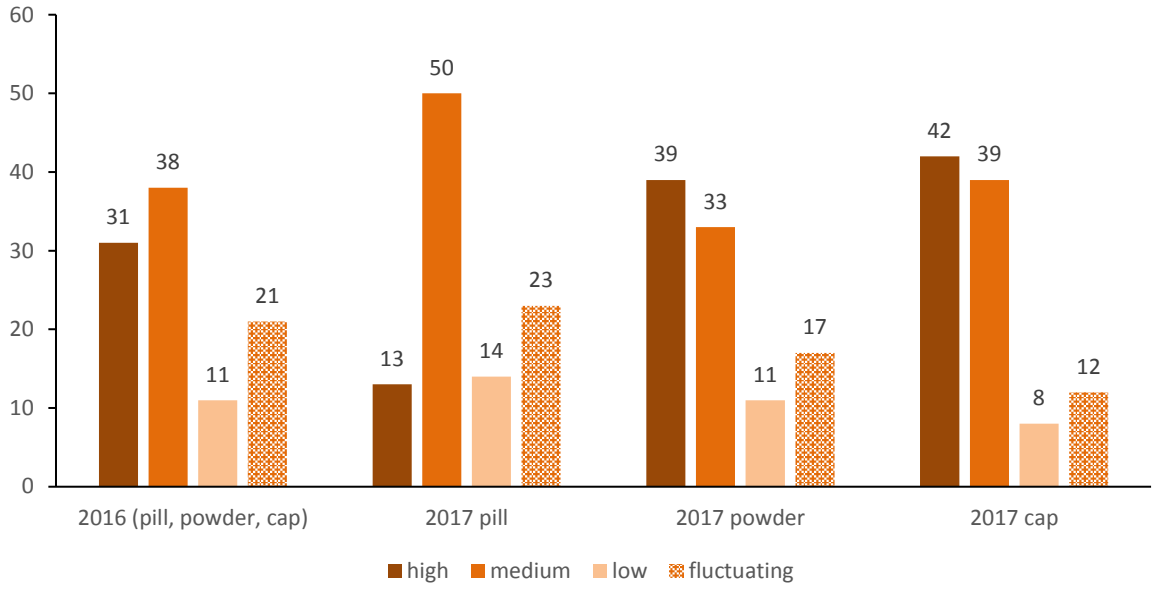
Source: QLD EDRS participant interviews

5.1.2 Purity

Ecstasy pills, powder and caps

Participants in 2017 appeared to believe that caps were of higher purity than pills and subject to less fluctuation in purity (Figure 28). There was a decrease in perceived fluctuation of purity for pills/powder/caps since 2016 (22% in 2017 vs 38% in 2016).

Figure 28: Perception of purity for ecstasy pills, powder and caps, 2016 and 2017



Source: QLD EDRS participant interviews

Table 12: Perceived changes in recent purity of ecstasy pills, powder and caps, 2007–17

	2007 %	2008 %	2009 %	2010 %	2011 %	2012 %	2013 %	2014 %	2015 %	2016 %	2017 %
Decreasing	16	22	42	60	43	29	29	26	11	4	**20**
Stable	33	30	27	15	20	25	24	35	35	39	**37**
Increasing	4	6	6	3	9	15	13	11	14	7	**13**
Fluctuating	41	35	25	22	25	31	34	28	40	49	**22**

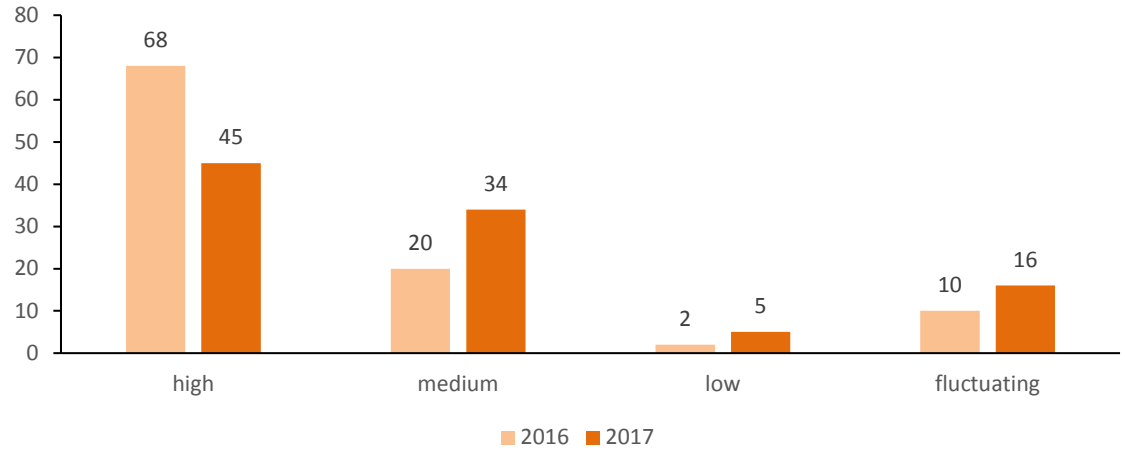
Note: Those choosing 'don't know' were excluded from analyses. Percentages may not total 100 due to rounding.
Source: QLD EDRS participant interviews

Although participants generally believed pills to be of medium purity and powder or caps to be of medium-high purity, recent drug seizure analyses over the study period indicate the presence of a significant number of higher-content (50-60mg MDMA per pill) and some very high potency pills (up to 176mg MDMA per pill). Pills and capsules analysed were noted to include a mix of MDMA and methamphetamine and/or MDA

MDMA crystal

Figure 29 shows that 45% of participants who commented on the purity of MDMA crystal (n=62) reported it to be high (compared with 13% for ecstasy pills, powder [39%], and caps [42%]). This was lower than previous years; medium purity was reported more in 2017 than 2016 (Figure 29).

Figure 29: Perceptions of recent purity of MDMA crystal, 2016 and 2017



Source: QLD EDRS participant interviews

Participants were asked whether they believed the purity of MDMA crystal had changed in the previous six months. Among those who commented (n = 57), 56% perceived it had remained stable, 16% as increased, 14% as decreased, and 14% as fluctuating in purity.

5.1.3 Availability

Ecstasy pills, powder and caps

Of those who commented on the previous six-month availability of ecstasy pills, powder and caps, all were regarded as easy or very easy to obtain (Table 15). The majority reported believing that ease of access had remained stable over the previous six months.

Table 13: Ease of access and reported change in availability of ecstasy pills, powder and caps in the previous six months, 2016 and 2017

	2016 (Pill, powder, cap) %	**2017 (pills) %**	**2017 (powder) %**	**2017 (caps) %**
Ease of access to ecstasy	(n=78)	**(n=79)**	**(n=18)**	**(n=78)**
Very easy	54	**51**	**28**	**45**
Easy	42	**42**	**39**	**42**
Difficult	4	**8**	**33**	**12**
Very difficult	0	**0**	**0**	**1**

	2016 (Pill, powder, cap) %	2017 (pills) %	2017 (powder) %	2017 (caps) %
Change in availability	(n=75)	**(n=78)**	**(n=15)**	**(n=77)**
Stable	68↑	**71**	**53**	**71**
Easier	15	**14**	**20**	14
More difficult	5	**9**	**20**	10
Fluctuating	12	**6**	**7**	4

Note: Those choosing 'don't know' were excluded from analyses. Percentages may not total 100 due to rounding.
Source: QLD EDRS participant interviews

MDMA crystal

Among those who commented (n = 63), current access to MDMA crystal was reported to be easy (43%) or very easy (33%), similar to 2016 reports. Only 22% reported it to be difficult to obtain and 2% very difficult. When asked about changes in availability of MDMA crystal (n = 59), most (64%) reported it had remained stable, 15% reported it was becoming more difficult to obtain, 12% reported it was easier, and 9% reported fluctuation.

5.1.4 Purchasing patterns and locations of use

Any form of Ecstasy

The most common source location was a private home (Table 16). Friends remained the most common source from which ecstasy pills, powder and caps, were last purchased. .A small group (4%) reported dark-web purchases of MDMA. Participants reported purchasing MDMA crystal from a range of people in the previous six months (n = 27). Table 16 shows that purchase at a private home remained most common, with a decrease in sourcing at a dealer's home, and an increase in buying from friends.

Table 14: Source person and location of most recent purchase of ecstasy, 2015-17

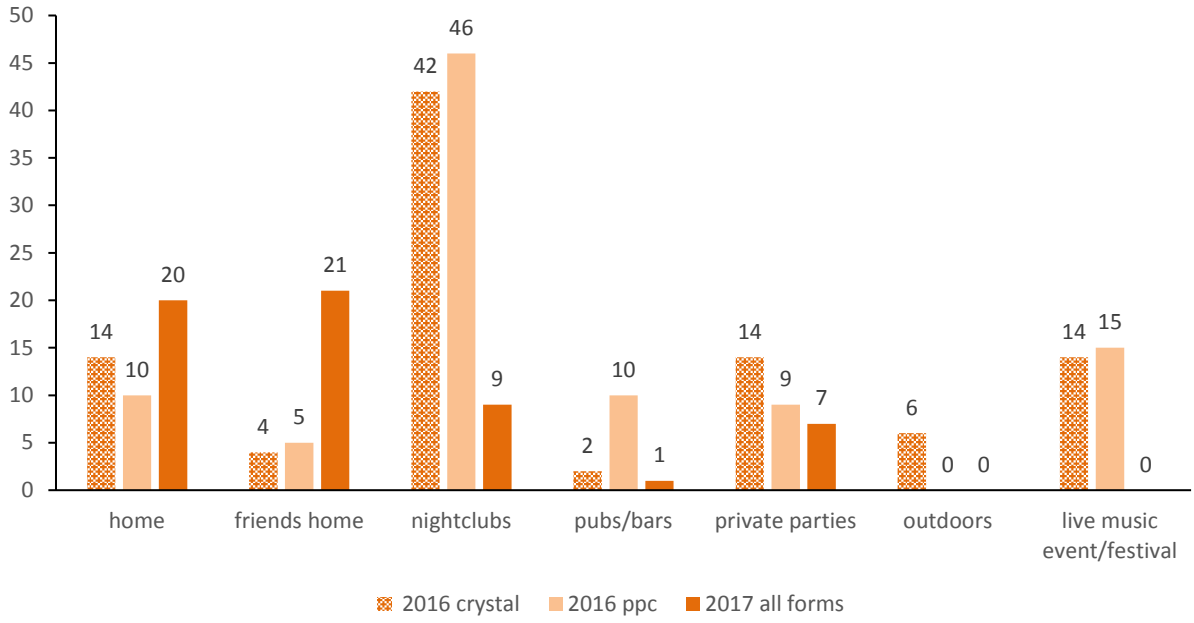
	2016 (ppc) (n=78) %	2016 (crystal) (n=50) %	2017 (all forms) (n=97) %
Venue scored from			
Friend's home	22	26	**21**
Own home	27	20	**20**
Dealer's home	17	26	**18**
Nightclub	12	0	**9**
Agreed public location	12	10	**11**
Private party	1	2	**7**
Pubs/bar	1	0	**1**

	2016 (ppc) (n=78) %	2016 (crystal) (n=50) %	2017 (all forms) (n=97) %
Acquaintance's home	0	0	**2**
Rave/doof/dance party	0	2	**3**
Street	1	1	**3**
Source person			
Friends	53	36	**43**
Known dealers	19	26	**32**
Acquaintances	15	20	**10**
Unknown dealers	4	2	**7**
Work colleagues	3	0	**1**
Online dark website	5	12	**4**

Note: Those responding 'used not scored' were excluded from analyses.
Percentages may not total 100% due to rounding. Source: QLD EDRS participant interviews

Nightclubs remained the most popular venue for use of MDMA (Figure 30).

Figure 30: Venue of most recent use of ecstasy, 2016 and 2017



Source: QLD EDRS participant interviews

5.2 Methamphetamine

Key points

- The median price of speed was similar at $30 per point. Purity was rated as medium/high, and about two-fifths reported it as very easy to obtain while another two-fifths reported it as difficult.
- The median price of ice rose to $50 per point and $375 per gram. Purity was rated as medium/high, and accessibility as easy/very easy.
- Ice was most likely to have been sourced from a known dealer, at a private home.

In 2017, participants commented on the market trends for three forms of methamphetamine:

- Amphetamine powder (speed); n = 8
- Methamphetamine base (base); n = 1
- Crystalline methamphetamine (ice); n = 17

Because numbers are low, findings should be treated with caution.

5.2.1 Price

Speed

When asked how much speed cost the most recent time they purchased a point (0.1g), the median response was $30 (n=6, range $20–50). One participant reported paying $120 for a gram. Of the seven participants who were able to comment on the price of speed, three reported that the price had increased in the previous six months, while two reported it had decreased. This is similar to 2016, although numbers are too low for meaningful comparison.

Base

No participants reported on the price of methamphetamine base in the last six months.

Ice

The median reported price per point of ice was $50 (n = 7, range $30–50), higher than 2016 ($38). One gram was a median of $375 (n = 4, range $60–900)—up from 2016 ($320), although small numbers prevented meaningful comparison. Fourteen participants commented on the change in price of ice in the previous six months: six reported it to be stable, four as decreasing, and four as increasing. Table 18 shows that the price ranges reported by the ACIC (2017) for ice in 2012–13 and 2013–2014 were slightly higher than those reported by our study participants in 2016.

Table 15: ACIC reported methylamphetamine (crystal form) prices in Queensland, 2014–15 and 2015-16

Weight	Price per unit	
	2014–2015	2015-16
1 point (0.1 gram)	$50–150	$50-200
1 gram / 'weight'	$500–1000	$300-1000
1/8 ounce (3.5 grams) / 'eight ball'	$750–1700	$750-2500
¼ ounce	n/r	n/r
1 kilogram	$150,000–280,000	$90,000-280,000

Source: ACIC 2016 and ACIC 2017

The prices reported by the ACIC cannot be compared with those reported by EDRS participants, as the ACIC reports focus on larger purchases. Additionally, the Commission reports the price of speed and base combined, so a direct comparison with the EDRS data is difficult (Table 19). However, it appears that the price of the crystalline form has again decreased at bulk purchase level.

Table 16: ACIC reported methylamphetamine (non-crystal form) prices in Australia, 2014-15 and 2015–16

Weight	Price per unit	
	2014–2015	2015-16
1 point	$50–150	$50-150
1 gram 'weight'	$180–500	$180-500
1/8 ounce (3.5 grams)/'eight ball'	$600–1100	$300-1000
1 kilogram	n/r	n/r

Source: ACIC 2016 and 2017

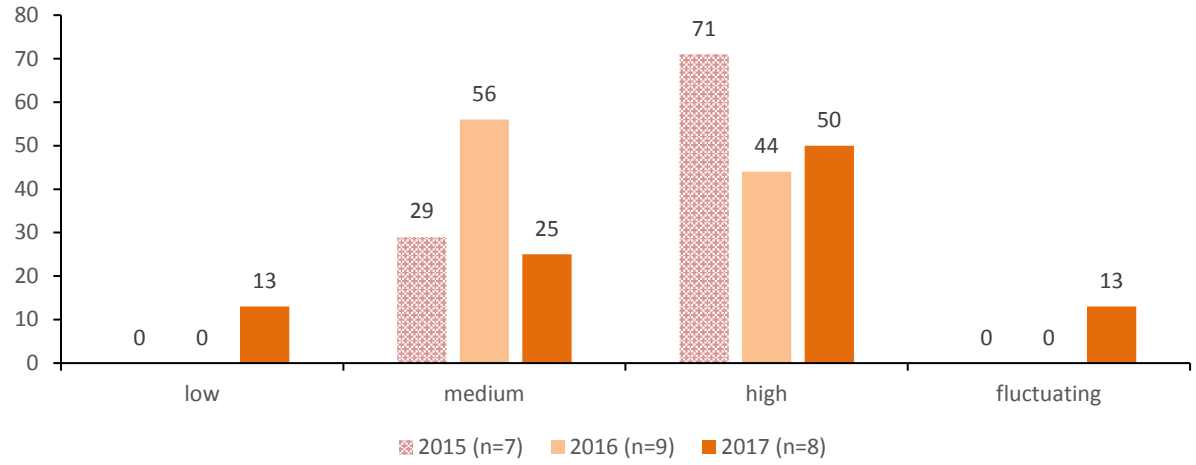
5.2.2 Purity

Speed

In 2017, eight participants reported on their perception of purity of speed (Figure 32). Purity was perceived as medium or high, but these figures are based on very low numbers, so it is not possible to make meaningful comparisons with 2016 reports.

In 2017, only seven participants commented on perceived changes in purity of speed in the previous six months: four considered it to be stable, two decreasing and one increasing. Low numbers prevented comparison with 2016.

Figure 31: Perception of speed purity in previous six months, 2015–17



Note: Those choosing 'don't know' were excluded from analyses. Small number of reports: treat with caution. Percentages may not total 100% due to rounding.
Source: QLD EDRS participant interviews

Base

One participant in 2017 reported on perceived purity of base, rating it as medium.

In 2017, 16 participants were able to comment on the purity of ice. The responses were:

- high 50% (43% in 2016)
- medium 25% (43% in 2016)
- fluctuating 13% (14% in 2016)
- low 13%

Among those who reported on perceived changes in purity of ice in the previous six months (n = 13), seven reported it to have remained stable, two to have fluctuated, two to have increased, and two to have decreased.

Table 20 shows that in the financial year 2014–15 the Queensland Police Service (QPS) made 22 seizures of often low purity speed and base (range 0.2–64.5%); this is a significant decrease in the number of seizures, if not the purity. The Australian Federal Police (AFP) recorded only four seizures of amphetamine in Queensland for this period (ACIC, 2016).

Table 17: Median purity of amphetamine seizures analysed in Queensland by police, 2009–10 to 2014–15

	2009–10		2010–11		2011–12		2012–13		2013–14		**2014–15**	
	n	***%***	***n***	***%***	***n***	***%***	***n***	***%***	***n***	***%***	***n***	***%***
QPS	20	1.2	56	0.8	14	1.5	46	3.2	115	2.0	**22**	**1.9**
AFP	2	18.6	5	14.3	9	69.1	1	13.7	n/r	n/r	**4**	**24.5**

Source: ACIC, 2016

Table 21 shows the purity of the numerous methylamphetamine seizures by QPS was 72.1% (range 0.1–80.3%) in the financial year 2014–15. The 16 AFP seizures ranged in purity from 22.6% to 81.3% (median 79.1%; ACIC, 2016).

Table 18: Median purity of methylamphetamine seizures analysed in Queensland by police, 2009–10 to 2014–15

	2009–10		2010–11		2011–12		2012–13		2013–14		**2014–15**	
	n	***%***	***n***	***%***	***n***	***%***	***n***	***%***	***n***	***%***	***n***	***%***
QPS	1,568	6.8	1,884	13.9	1,694	34.2	1,763	52.6	1,931	58.8	**2,589**	**72.1**
AFP	1	18.8	3	31.7	7	76.2	16	71.1	13	79.4	**52**	**79.1**

Source: ACIC, 2017

5.2.3 Availability

In 2017, seven participants reported on their perceived availability of speed; three reported it to be very easy to obtain, three reported it as difficult, and one as easy. Availability change was mostly reported as more difficult in the last 6 months (Table 22). No participants commented on the availability of base. Ice was reported as easy or very easy to obtain, and availability was generally reported to have remained stable.

Table 19: Perceived availability by methamphetamine type, 2017

	Speed %	Base %	Ice %
Current availability	**(n=7^)**	**(n=1^)**	**(n=17)**
Very easy	43	0	47
Easy	14	100	35
Difficult	43	0	18
Very difficult	0	0	0
Change in availability	**(n=7^)**	**(n=1^)**	**(n=14)**
More difficult	57	0	7
Stable	14	100	57
Easier	29	0	29
Fluctuates	0	0	7

Note: ^ denotes small numbers reported; interpret with caution (n < 10). Those choosing ‘don’t know’ were excluded from analyses. Percentages may not total 100% due to rounding.
Source: QLD EDRS participant interviews

5.2.4 Source and locations of use

Speed

Eight participants reported having obtained speed in the previous six months. Of these, four sourced it from a known dealer the most recent time it was obtained, two from a friend, one form an unknown dealer, and one from the dark web. Locations were an agreed public location (three), a friend's home (two), a dealer's home (two), and online/posted (one). Statistical comparisons with 2016 were not possible due to low numbers.

When participants were asked where they had spent most of their time the most recent time they used speed (n = 8), the most common location was at nightclubs (three); after that was home (two), and dealer's home, friend's home, and private parties were all one.

Only one person commented on recent acquisition of base; it was scored from a known dealer at a dealer's home.

Ice

Among those who commented on the most recent time they purchased ice in the previous six months (n = 14), the majority reported they had obtained it from a known dealer (7) or a friend (4); the remaining participants reported either a workmate, an acquaintance, or a street dealer. Delivery to a friend's home (seven) or home (four) was most common. Only five people reported acquiring ice in a public venue; the rest acquired in a private home (their own, friend's, or dealer's).

When asked where participants spent the majority of the time the most recent occasion they had used ice, most participants reported using it at a friend's home (six) or their own home (four). Other locations included a dealer's home, pubs/bars, outdoors, or a live music event/concert/festival.

5.3 Cocaine

Key points

- The median price of a gram of cocaine was $300.
- 68% of participants who commented perceived cocaine as difficult or very difficult to obtain in the previous six months. Purity was perceived as medium to high.
- A friend was the most common source person and a private home the most common source location, but nightclubs remained the most common venue for the last occasion of use in the previous six months.

In 2017, 37 participants answered questions about the cocaine market. Caution is needed when interpreting these data due to low numbers.

5.3.1 Price

The median price of a gram of cocaine was $300 the most recent time it was purchased in the previous six months (n = 19, range $200–400). This was similar to previous years. Most reported the price to have remained stable in the previous six months (Table 23).

Table 20: Changes in prices of cocaine in previous six months, 2015-17

	2015 (n=11) %	2016 (n=16) %	**2017 (n=26) %**
Increasing	-	13	**15**
Stable	82	62	**69**
Decreasing	9	-	**4**
Fluctuating	9	25	**12**

Note: Those choosing 'don't know' were excluded from analyses. Percentages may not total 100% due to rounding.
Source: QLD EDRS participant interviews

Reports on price were in keeping with prices reported for 2015–16 by the ACIC (2017) where the price of one gram of cocaine was $50.

5.3.2 Purity

The purity of cocaine was perceived to be medium (38% of respondents). Differences to reports of purity in 2015 are likely to be due to small sample size (Table 24).

Table 21: Perception of cocaine purity in previous six months, 2015–17

	2015 %	2016 %	2017 %
Current purity	(n=17)	(n=21)	**(n=34)**
Low	47	24	**29**
Medium	24	48	**38**
High	12	24	**29**
Fluctuates	18	5	**3**
Change in purity	(n=16)	(n=17)	**(n=28)**
Increasing	-	6	**11**
Stable	63	59	**54**
Decreasing	6	6	**21**
Fluctuating	31	29	**14**

Note: ^ denotes small numbers reported; interpret with caution (n < 10). Those choosing 'don't know' were excluded from analyses. Percentages may not total 100% due to rounding.
Source: QLD EDRS participant interviews

The purity of cocaine seized by the police forces and analysed in Queensland is presented in Table 25. In 2014–15, QPS seizures ranged in purity from 0.1–79% (median 29.7%), and AFP seizures ranged from 0.2–84.3% (median 64.7%; ACIC, 2016).

Table 22: Median purity of cocaine seizures analysed in Queensland, 2010–11 to 2014–15

	2010–11		2011–12		2012–13		2013–14		**2014–15**	
	n	***%***	***n***	***%***	***n***	***%***	***n***	***%***	***n***	***%***
QPS	126	19.8	125	18.7	178	27.8	176	33.8	**305**	**29.7**
AFP	21	76.2	9	66.0	11	65.5	18	57.5	**13**	**64.7**

Note: Figures do not represent purity of all cocaine seizures, but only of those submitted for analysis
Source: ACIC, 2016

5.3.3 Availability

In 2017, 57% of participants who commented perceived cocaine as difficult to obtain in the previous six months (Table 26), and that this had remained stable (59%).

Table 23: Availability of cocaine in previous six months, 2015–17

	2015 %	2016 %	2017 %
Current availability	(n=17)	(n=21)	**(n=37)**
Very easy	-	19	**5**
Easy	59	33	**27**
Difficult	35	48	**57**
Very difficult	6	-	**11**
Change of ease of access	(n=16)	(n=17)	**(n=32)**
More difficult	13	12	**25**
Stable	69	65	**59**
Easier	6	12	**13**
Fluctuates	13	12	**3**

Note: Small numbers reported; interpret with caution. Those choosing 'don't know' were excluded from analyses.
Percentages may not total 100% due to rounding.
Source: QLD EDRS participant interviews

5.3.4 Source and location of use

Similar to previous years, friends remained the most common source person for cocaine when last obtained, and a friend's home was the most common source (Table 27).

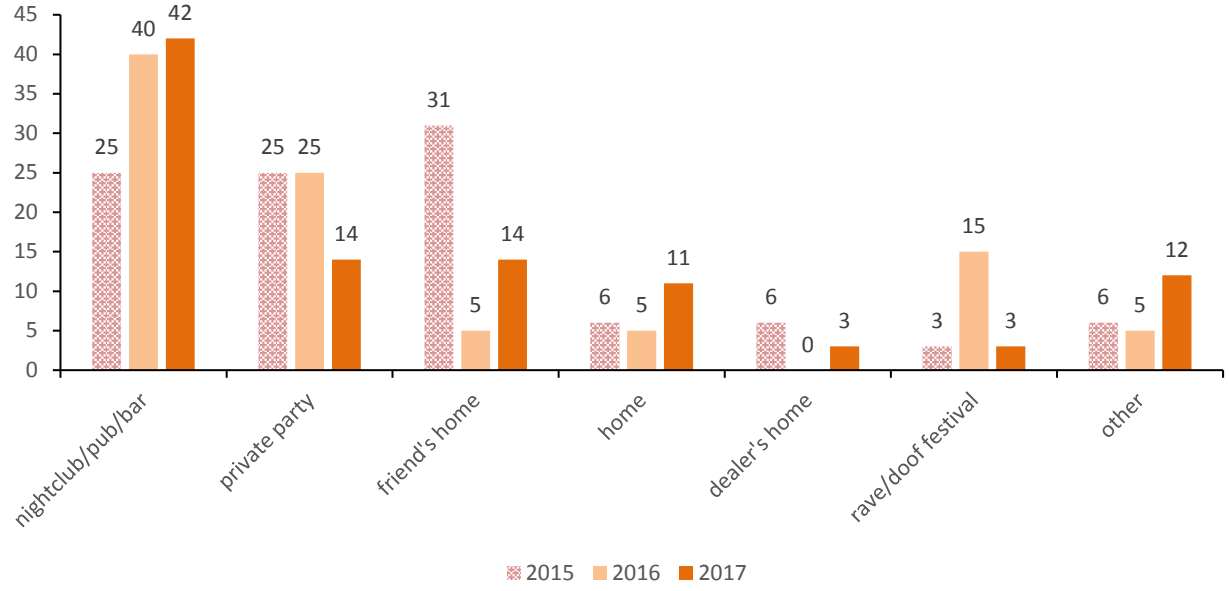
Table 24: Most recent source and location for obtaining cocaine, 2015–17

	2015 (n=15) %	2016 (n=21) %	2017 (n=35) %
Persons scored from			
Friend	60	52	**60**
Known dealer	13	14	**23**
Acquaintance	20	19	**3**
Unknown dealer	7	5	**-**
Online/dark web	-	5	**3**
Location scored from			
Friend's home	29	24	**31**
Dealer's home	7	-	**17**
Own home	21	10	**9**
Private party	7	19	**11**
Agreed public location	14	10	**6**
Nightclub	7	24	**6**
Online/dark web	-	5	**6**

Note: Small numbers reported; interpret with caution. Those choosing 'don't know' were excluded from analyses.
Percentages may not total 100% due to rounding.
Source: QLD EDRS participant interviews

Nightclubs, private parties and music events were the most commonly reported locations for most recent use of cocaine (Figure 33).

Figure 32: Location of most recent cocaine use, 2015–17



Source: QLD EDRS participant interviews

5.3.5 Cocaine seizures

Figure 34 shows the weight and purity of cocaine detections in Queensland over the last decade. In 2014–15 both the number and purity of seizures increased substantially over the 2013–2014 period.

Figure 33: Number and purity of cocaine detections in Queensland, 2010–11 to 2014–15

	2010–11		2011–12		2012–13		**2013–14**		**2014–15**	
	n	***%***	***n***	***%***	***n***	***%***	***n***	***%***	***n***	***%***
QPS	126	19.8	125	18.7	178	27.8	176	33.8	**305**	**29.7**
AFP	21	76.2	9	66.0	11	65.5	18	57.5	**13**	**64.7**

Source: ACIC, 2016

5.4 Ketamine

In 2017, nine participants reported having bought ketamine in the previous six months; the median price paid was $80 per gram (n = 7, range $20–$250). Most participants (7) regarded the price as stable, the current strength as high (three) or stable (seven), and the

ease of access difficult (six) or stable (six). Purchases were mostly through friends (five) at a private home (four) or a music event/party (four), with recent use mostly at the same places. Key experts noted few reports of ketamine use (more on the Gold Coast), and reported contamination by ketamine of other drug seizures.

5.5 LSD

Key points

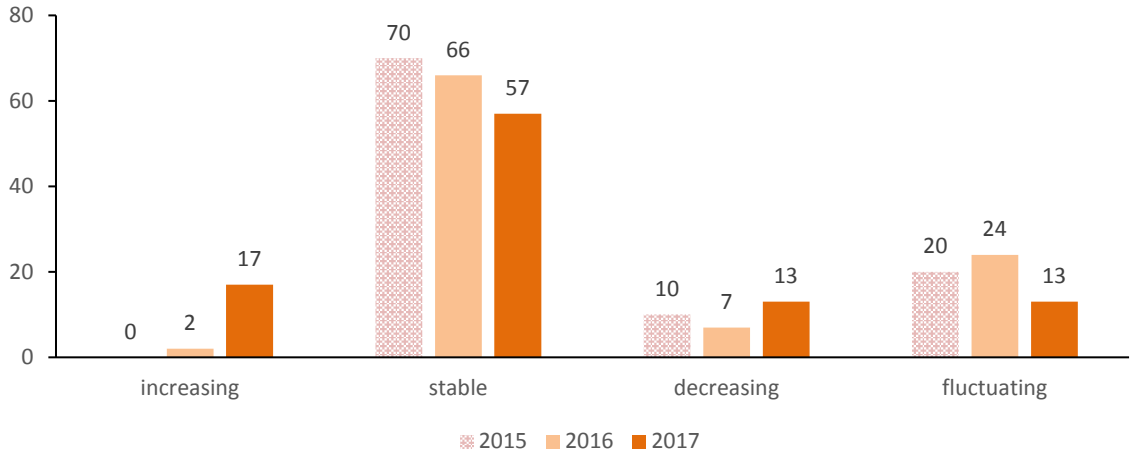
- Price of LSD was stable at approximately $20 per tab.
- Purity of LSD was perceived as medium to high.
- Two-thirds reported LSD to be easy or very easy to obtain, and availability had remained stable.
- LSD was most likely to have been obtained from a friend at a friend's home.

In 2017, 52 participants were able to comment on the price, purity and availability of LSD in the previous six months.

5.6.1 Price

The median price for a tab of LSD was $20 (n = 52, range $4–40), regarded as stable by most (57%) over the previous six months (Figure 35). This was comparable to prices of $10–25 per tab reported by the ACIC (ACIC 2017).

Figure 34: Change in price of LSD in previous six months, 2015–17

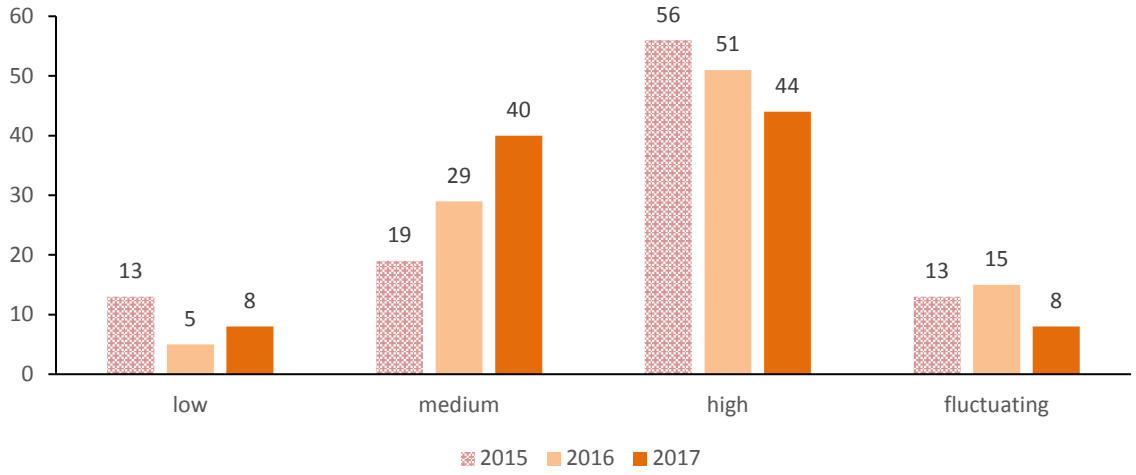


Note: Those choosing 'don't know' were excluded from analyses. Percentages may not total 100% due to rounding.
Source: QLD EDRS participant interviews

5.6.2 Purity

In 2017, similar to 2016, most participants (84%) reported the current purity of LSD as medium to high (Figure 36).

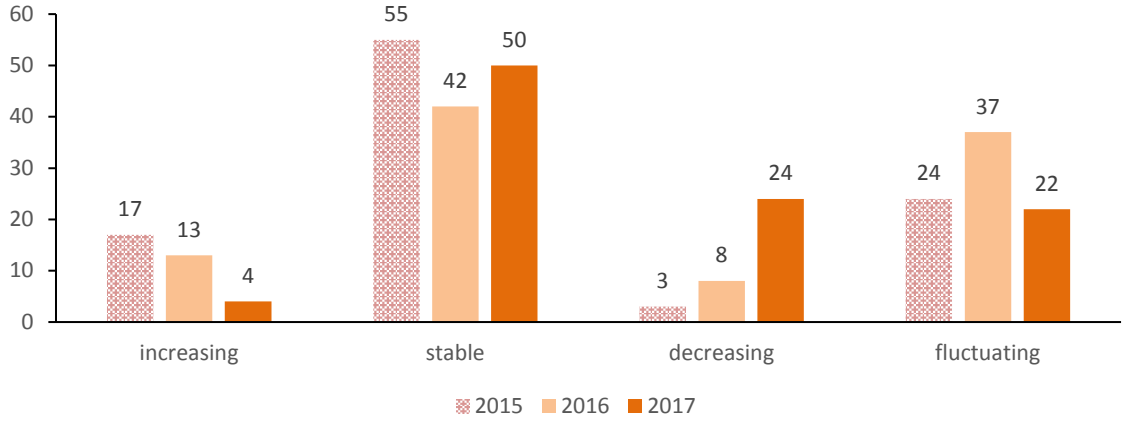
Figure 35: Purity of LSD in previous six months, 2015–17



Note: Those choosing 'don't know' were excluded from analyses. Percentages may not total 100% due to rounding.
Source: QLD EDRS participant interviews

Half (50%) of the 2017 participants perceived the purity of LSD had remained stable during the previous six months (Figure 37), with significantly more reporting decreasing purity (24%) than in previous years. Analysis of recent drug seizures indicated a number of other substances in "LSD tabs", including etizolam and n-BOMe, as well as some high-dose LSD tabs (50 micrograms/tab)

Figure 36: Changes in purity of LSD in previous six months, 2015–17

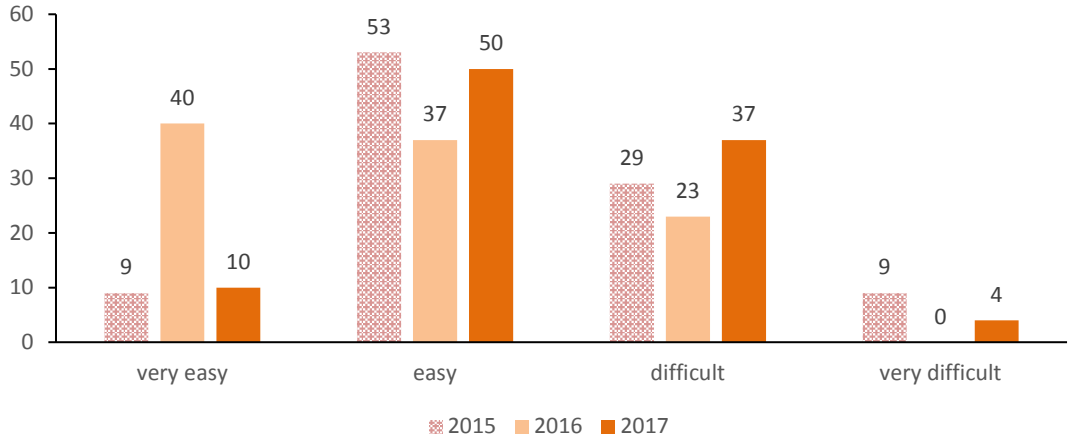


Note: Those choosing 'don't know' were excluded from analyses. Percentages may not total 100% due to rounding.
Source: QLD EDRS participant interviews

5.6.3 *Availability*

Two thirds reported LSD to be easy or very easy to obtain (Figure 38). Perceived availability was somewhat similar to 2016, but more participants reported it was difficult to obtain.

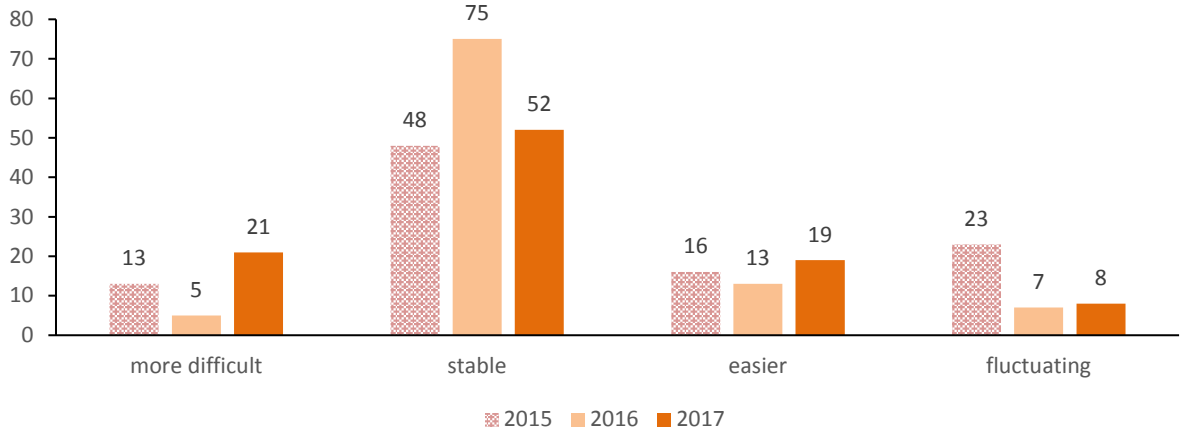
Figure 37: Availability of LSD in previous six months, 2015–17



Note: Those choosing 'don't know' were excluded from analyses. Percentages may not total 100% due to rounding.
Source: QLD EDRS participant interviews

Half of participants (52%) reported the recent availability of LSD to be stable (Figure 39). This is lower than 2016 but similar to 2015 (Figure 39).

Figure 38: Changes in availability of LSD in previous six months, 2015–17



Note: Those choosing 'don't know' were excluded from analyses. Percentages may not total 100% due to rounding. Source: QLD EDRS participant interviews

5.6.4 *Source and locations of use*

Friends remained the most common source person, but a dealer (known/unknown) increased in 2017 and online purchasing decreased in 2017 ($p < 0.05$). A private home

(friend's/own/dealer/s) was the most common location when LSD was last obtained in the previous six months (Table 28).

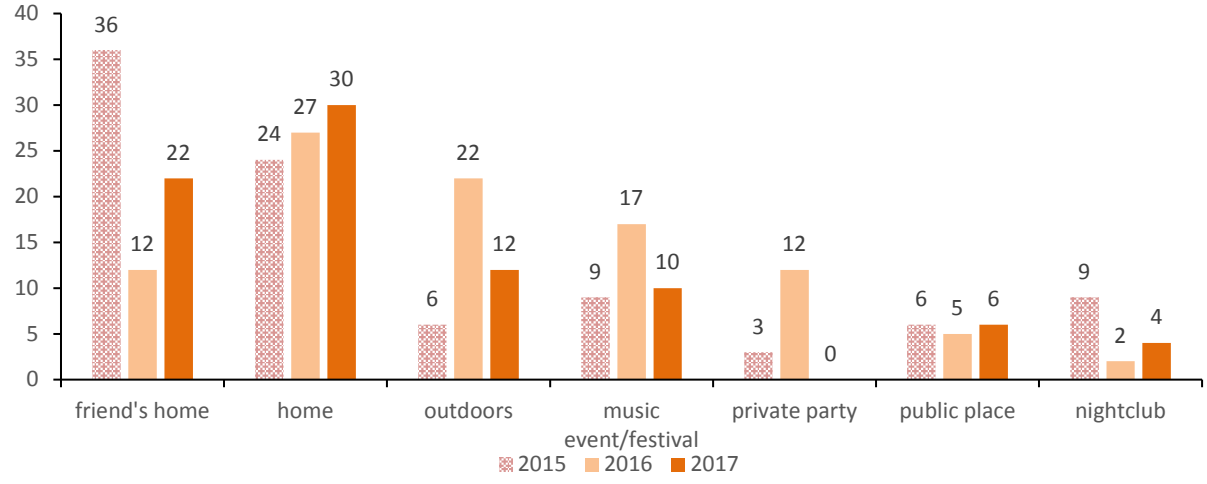
Table 25: Source person ad location last time obtained LSD, 2015–17

	2015 (n=34) %	2016 (n=42) %	2017 (n=51) %
Source person			
Friend	47	60	**51**
Dealer (known/unknown)	38	14	**38**
Acquaintances	12	2	**2**
Relative	-	-	**-**
Online/deep web	3	24	**10**
Location sourced from			
Friend's home	35	38	**33**
Own home	12	36	**10**
Dealer's home	26	2	**14**
Online	-	10	**8**
Live music event/festival	6	7	**6**
Agreed public location	18	2	**16**
Nightclub/pub/bar	-	-	**-**
Private party	3	5	**-**

Note: Small numbers; interpret with caution. Those choosing 'don't know' were excluded from analyses. Percentages may not total 100% due to rounding. Source: QLD EDRS participant interviews

Figure 40 shows private homes as the most common venue for using LSD on the most recent occasion in the previous six months, followed by outdoors and music events.

Figure 39: Location of most recent LSD intoxication, 2015–17



Note: Those choosing 'don't know' were excluded from analyses. Percentages may not total 100% due to rounding. Source: QLD EDRS participant interviews

5.7 Cannabis

Key points

- The median price for an ounce of hydro was $275, and $250 for bush, with prices perceived to have remained largely stable in the previous six months.
- The perceived purity of both hydro and bush cannabis was medium or high.
- Availability of both forms of cannabis remained easy/very easy.
- Cannabis was most often obtained from a friend or known dealer at home, and was most often used at a participant's own home.

In 2017, 75 participants reported they were able to distinguish between hydroponic (hydro) and bush cannabis. Sixty-six participants were able to comment on hydro, and 64 were able to comment on the bush cannabis market.

5.7.1 Price

The price of cannabis remained similar to previous years (Table 29). In 2017, the price of hydro was again slightly higher than that for bush: the median price for an ounce of hydro was $275 (n = 46, range $200–330) while the price for an ounce of bush was $250 (n = 32, range $150–360).

Table 26: Cannabis prices by type and amount recently purchased, 2015–17

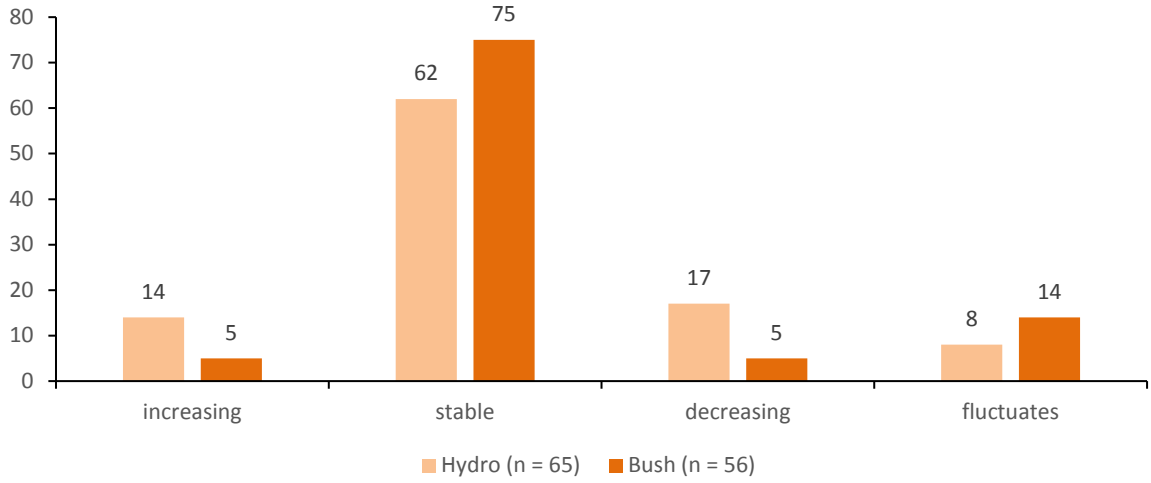
	2015 Median (range)	2016 Median (range)	2017 Median (range)
Hydro			
Gram	$10 (9–25)	$20 ($5–50)	**$15** ($10-50)
Quarter ounce	$85 (9–180)	$80 ($50–180)	**-**
Ounce	$280 (100–300)	$280 ($10–350)	**$275** ($200-330)
Bush			
Gram	$12.50 (10–15) ^	$20 ($10–70) ^	**$10** ($5-20)
Quarter ounce	$90 (65–100)	$80 ($30–100)	**-**
Ounce	$250 (100–320)	$250 ($200–320)	**$250** ($150-360)

Note: ^ denotes small numbers reported; interpret with caution (n<10).

Source: QLD EDRS participant interviews

The price of both hydro and bush cannabis was perceived to have remained largely stable over the previous six months (Figure 41), as for previous years.

Figure 40: Price changes of cannabis in previous six months, 2017

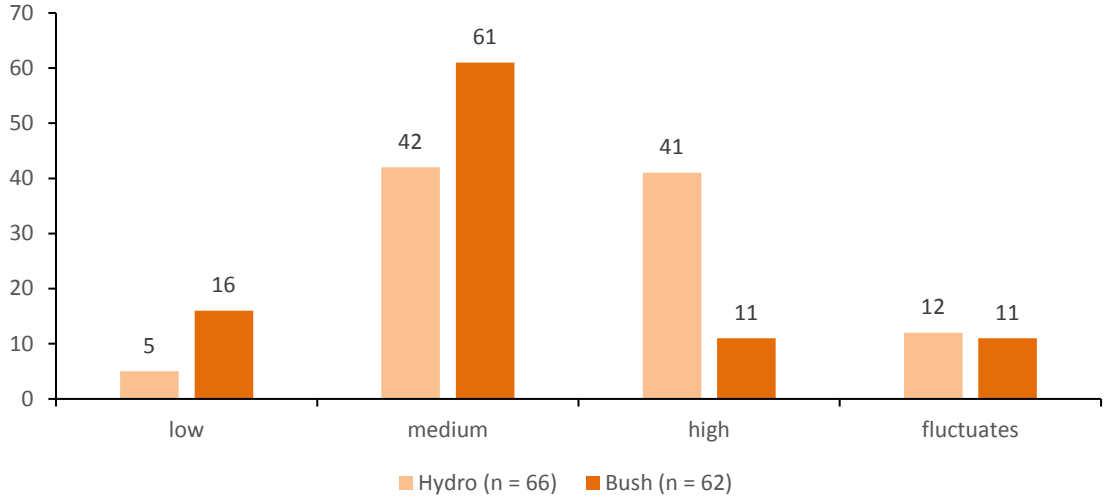


Note: Those choosing 'don't know' were excluded from analyses. Percentages may not total 100% due to rounding.
Source: QLD EDRS participant interviews

5.7.2 Purity

Figure 42 shows that the purity (i.e. strength) of both hydro and bush cannabis was largely perceived to be medium to high, as was the case in 2016.

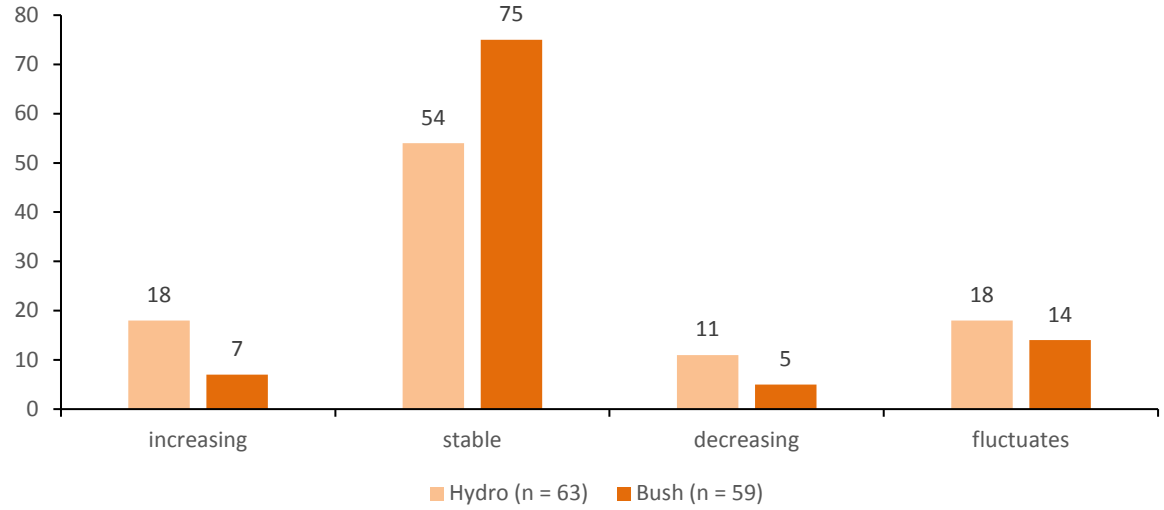
Figure 41: Perception of cannabis purity in previous six months, 2017



Note: Those choosing 'don't know' were excluded from analyses. Percentages may not total 100% due to rounding.
Source: QLD EDRS participant interviews

Figure 43 shows that, as in 2016, the purity of cannabis was most commonly reported as stable for both hydro and bush.

Figure 42: Perceived change in recent purity of cannabis, 2017



Note: Those choosing 'don't know' were excluded from analyses. Percentages may not total 100% due to rounding.
Source: QLD EDRS participant interviews

5.7.3 Availability

Similar to previous years, bush was perceived to be more difficult to obtain than hydro (Table 30). In 2017, the amount of participants who reported both to be very easy to obtain had decreased since 2016.

Table 27: Availability of cannabis in preceding six months, 2016 and 2017

	Hydro		Bush	
	2016 %	2017 %	2016 %	2017 %
Current ease of access	(n=52)	**(n=65)**	(n=43)	**(n=61)**
Very easy	81	**66↓**	56	**39↓**
Easy	15	**31**	12	**36**
Difficult	4	**3**	21	**21**
Very difficult	0	**0**	0	**3**
Change in availability in previous six months	(n=52)	**(n=65)**	(n=42)	**(n=59)**
More difficult	0	**5**	7	**14**
Stable	88	**80**	79	**64**
Easier	6	**12**	5	**15**
Fluctuates	6	**3**	10	**7**

Note: Those choosing 'don't know' were excluded from analyses. Arrow symbol signifies a significant difference ($p < 0.05$). Percentages may not total 100% due to rounding.
Source: QLD EDRS participant interviews

5.7.4 *Source and locations of use*

The most common source person for purchasing either hydro or bush was a known dealer, followed by a friend; and the most common location remained a private home for both forms (Table 31). There appeared to be an increase in use of dealers in 2017.

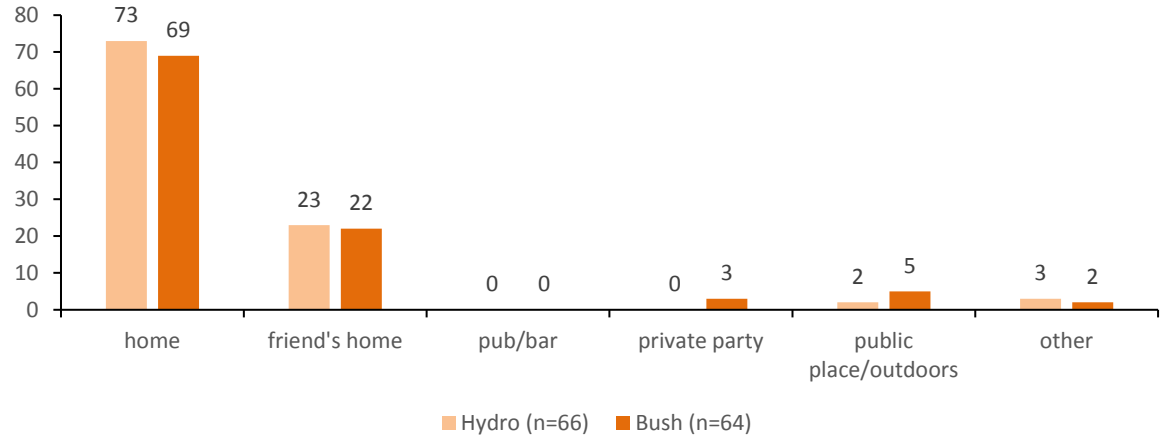
Table 28: Source person and location of most recent cannabis purchase, 2016 and 2017

	Hydro		Bush	
	2016 (n=53) %	2017 (n=66) %	2016 (n=44) %	2017 (n=64) %
Source person				
Friend	51	**42**	61	**38**
Known dealer	23	**53↑**	14	**50↑**
Unknown dealer	0	**2**	2	**5**
Acquaintances	25	**0**	11	**2**
Street dealer	0	**0**	9	**2**
Other	0	**0**	2	**0**
Online/deep web	2	**3**	2	**2**
Source venue				
Own home	32	**21**	41	**22**
Friend's home	28	**29**	34	**30**
Dealer's home	19	**35↑**	0	**28↑**
Agreed public location	13	**2**	9	**13**
Pub/bar	24	**9**	0	**0**
Other	6	**3**	4	**0**
Street market	2	**2**	9	**5**

Note: Those choosing 'don't know' were excluded from analyses. Arrow symbol signifies a significant difference ($p<0.05$). Percentages may not total 100% due to rounding.
Source: QLD EDRS participant interviews

The participant's home remained the most common venue for using both hydro and bush cannabis (Figure 44).

Figure 43: Venue of most recent cannabis use, 2017



Note: Those choosing 'don't know' were excluded from analyses. Percentages may not total 100% due to rounding.
Source: QLD EDRS participant interviews

6 HEALTH-RELATED TRENDS ASSOCIATED WITH ECSTASY AND OTHER PSYCHOSTMULANT USE

Key points

- 34% reported a lifetime stimulant overdose, with 25% in the previous year. The stimulant most commonly attributed to causing an overdose in the previous year was ecstasy, followed by ice.
- 22% reported experiencing an overdose on a depressant drug, 12% in the previous 12 months. Alcohol was the depressant drug most commonly attributed to causing an overdose in the previous year.
- Few participants exhibited signs of dependence on ecstasy or amphetamines.
- Most participants (78%) did not access a health service or professional about their drug and/or alcohol use in the previous six months.
- Among those who did, most accessed a psychologist.
- Drug treatment remained low in this sample (4%)
- 63% exhibited moderate to very high levels of psychological distress.
- 44% reported having a mental health problem in the previous six months, most commonly anxiety and depression; and 30% attended a mental health professional for this in the previous six months.

6.1 Overdose and drug-related fatalities

6.1.1 Non-fatal stimulant overdose

Thirty-four per cent of participants reported experiencing a stimulant overdose in their lifetime. The median number of times this had ever happened was twice (n = 33, range 1–8 times). Twenty-five per cent of all participants had experienced a stimulant overdose in the previous 12 months.

Among the participants who commented on their most recent stimulant overdose in the previous 12 months (n = 25), the two drugs most commonly attributed to the overdose were ecstasy (64%), followed by crystal meth (12%). In most overdoses more than one drug was involved (96%), most commonly alcohol (79%).

The most common locations of the most recent stimulant overdose were at a nightclub (28%) and at one's own home (20%); 32% overdosed at any private home the last time (own, friend's, or dealer's home). Other locations included at a live music event, private party, rave/doof/dance party, and outdoors. The main symptoms experienced were nausea, vomiting, increased body temperature, increased heart rate, and hallucinations (auditory, visual and tactile). Chest pain, tremors, increased heart rate, irregular breathing (rapid and shallow), panic, paranoia, and extreme anxiety were also reported.

Only one-third of those who experienced a stimulant overdose (32%) reported someone sober was present during the overdose to assist. One participant (n = 13) reported receiving ambulance attendance after the overdose.

6.1.2 Non-fatal depressant overdose

Twenty-two per cent of participants reported experiencing an overdose on a depressant drug in their lifetime. The median number of depressant overdoses was twice (n = 22, range 1–20).

Twelve per cent of participants who have ever experienced an overdose on a depressant drug had experienced an overdose in the previous 12 months. Of these twelve participants, eleven attributed the overdose to alcohol, and one to benzodiazepines. Ten participants reported an overdose occurring at a private home (own or friend's), two at a private party, and one at a nightclub.

Main symptoms included loss of consciousness and vomiting. Other symptoms included collapsing, memory loss, and trouble breathing (suppressed breathing or turning blue).

Three of thirteen participants reported that a sober person was present who was able to assist, and four were monitored by friends. Other forms of treatment reported included ambulance attendance and hospital emergency department.

6.2 Dependence on ecstasy and amphetamines

The question of whether it is possible to be dependent on ecstasy is a controversial one. Currently, in the DSM-IV-TR, it is possible to be diagnosed with ecstasy dependence (coded as either amphetamine dependence or hallucinogen dependence), and there are clear case studies in the literature of people who are dependent on ecstasy. Animal models have demonstrated that dependence on ecstasy is biologically plausible. However, research on ecstasy dependence in humans is limited (Degenhardt, Bruno, & Topp, 2010; Topp & Mattick, 1997).

To date, internationally, there have been a small number of studies of rates of dependence in ecstasy users. Studies from the US household survey suggest a prevalence rate of past-year dependence in approximately 3.6–3.8% of ecstasy users in the general population. An early NDARC study suggests a lifetime prevalence rate of 64% in similar types of regular ecstasy users to those interviewed in the EDRS.

In 2015, participants were asked questions from the Severity of Dependence Scale (SDS) in relation to their ecstasy use and (separately) their use of methamphetamines during the previous six months. 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 in patients across five samples in Sydney and London who used heroin, cocaine, amphetamine and methadone-(Dawe, Loxton, Hides, Kavanagh & Mattick, 2002), and was recently adapted for use with ecstasy in the EDRS. A total score was created by summing responses to each of the five questions. Possible scores range from 0 to 15.

Two cut-off scores are presented below, of three or more and four or more. A cut-off score of three or more was used as these scores have been recently found in the literature to be a good balance between sensitivity and specificity for identifying problematic dependent ecstasy use (Bruno, et al., 2009). In 2017, 19% of EDRS participants scored three or more for ecstasy use, similar to the 23% reported in 2016 (see Table 32). This compares with 25% reporting last-year ecstasy dependence in another recent study of regular ecstasy users in Queensland (Smirnov et al., 2014).

When using the more conservative estimate of four or more, which has been used previously in the literature as a validated cut-off for methamphetamine dependence (Bruno, et al., 2009; Topp & Mattick, 1997), only 10% of participants scored four or more for ecstasy use, which was similar to the 9% reported in 2016.

Table 29: SDS scores, ecstasy and methamphetamines, 2017

	Ecstasy	Methamphetamines
SDS score	**2017** (n=97) **%**	**2017** (n=22) **%**
0	54	50
3 or more	19	41
4 or more	10	32

Source: QLD EDRS participant interviews

Symptoms of dependence were also common among recent methamphetamine users: one in three (32%) scored four or more for their methamphetamine use, with nearly one-half (41%) showing symptoms of dependence with the lower cut-off. The 23% who reported they would find it quite/very difficult to go without (Table 33) appears somewhat higher than the 12% of methamphetamine users nationally in 2013 who 'could not stop or cut down on use if they wanted to' (AIHW 2014).

In 2017, 54% of ecstasy users and 50% of methamphetamine users reported no symptoms of dependence (a score of zero). Nearly three quarters (71%) obtained a score of one or less for ecstasy dependence, and 59% for methamphetamine dependence. The median SDS score for ecstasy was zero (n = 97; range 0–11). Similarly, the median SDS score for

methamphetamine was 0.5 (n = 22, range 0–9). Thus, the majority of participants report very few or no symptoms of ecstasy or methamphetamine dependence (Table 33).

Table 30: Symptoms of dependence, ecstasy and methamphetamines, 2016–17

	Ecstasy		Methamphetamines	
Symptoms of dependence	2016 (n=84) %	2017 (n=97) %	2016 (n=23) %	2017 (n=22) %
Ever think use was out of control				
Never/almost never	74	**79**	61	**68**
Sometimes	25	**16**	22	**23**
Often	1	**4**	17	**9**
Always/nearly always	0	**1**	0	**0**
Prospect of missing a dose makes you feel anxious or worried				
Never/almost never	73	**88**	70	**68**
Sometimes	24	**9**	22	**18**
Often	4	**2**	9	**14**
Always/nearly always	0	**1**	0	**0**
Worry about your use				
Never/almost never	57	**58**	52	**59**
Sometimes	40	**38**	22	**18**
Often	2	**4**	22	**18**
Always/nearly always	0	**0**	4	**6**
Wish you could stop				
Never/almost never	86	**86**	65	**68**
Sometimes	12	**13**	22	**9**
Often	1	**1**	9	**18**
Always/nearly always	1	**0**	4	**5**
How difficult to stop or go without				
Not difficult	85	**85**	70	**77**
Quite difficult	14	**11**	22	**18**
Very difficult	1	**3**	9	**5**
Impossible	0	**1**	0	**0**

Source: QLD EDRS participant interviews

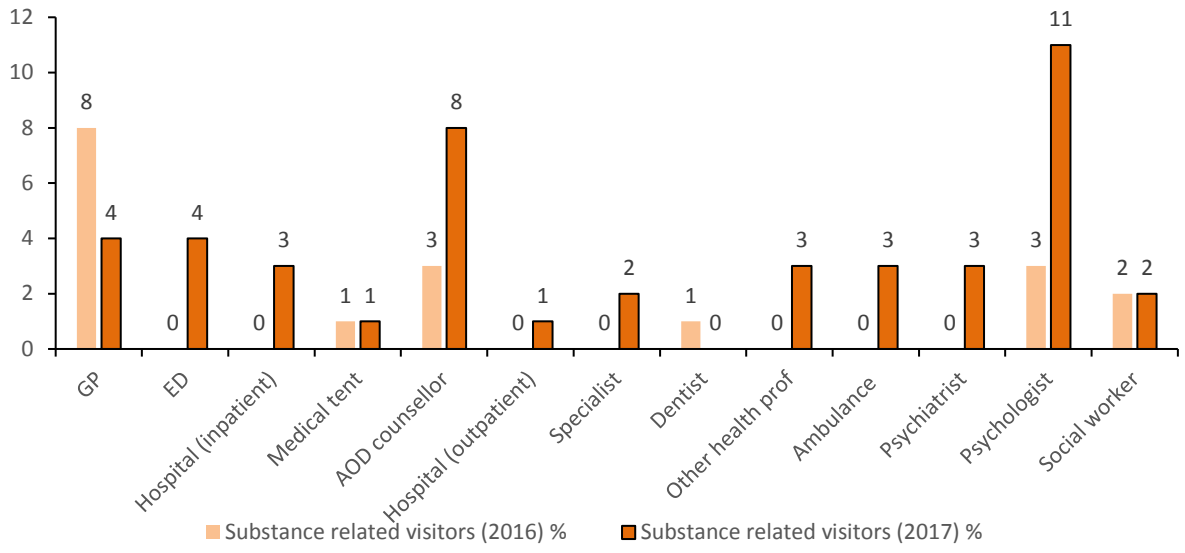
6.3 Help-seeking behaviour

6.3.1 Use of health services

Twenty-one per cent of participants reported that they had sought help for their drug and/or alcohol use from a service or health professional in the previous six months. Most commonly this was a psychologist (n=11), followed by a drug and/or alcohol counsellor (n=8, Table 46).

Other professionals consulted included a GP or the emergency department (each n=4), a social worker (n=2), a dentist (n=1), and a medical tent at a rave (n=1).

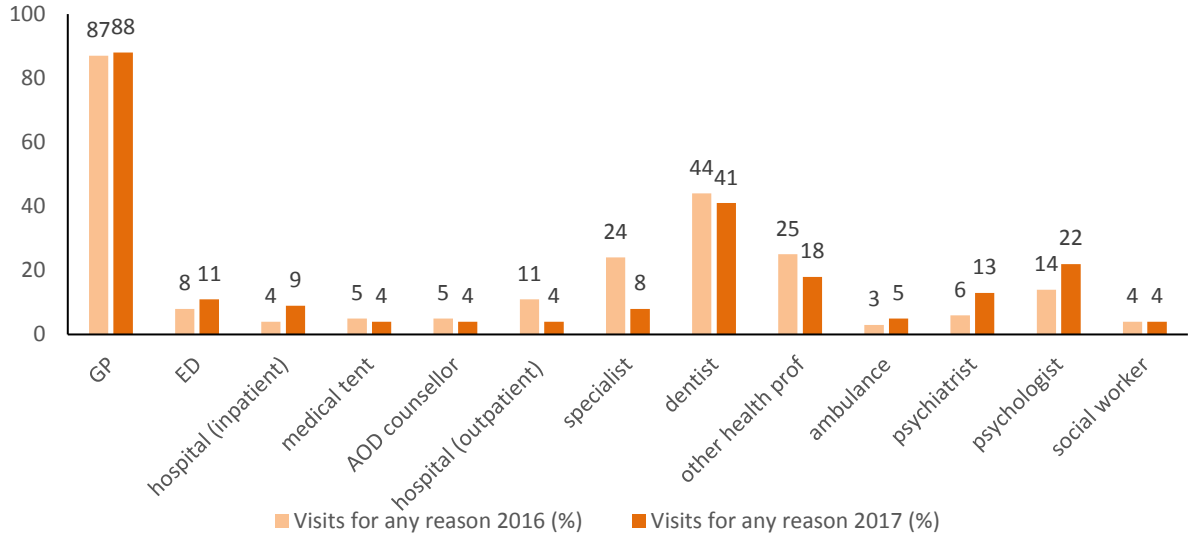
Figure 44: Substance-related visits to health professionals, 2016 and 2017



Source: QLD EDRS participant interviews

Ninety-three per cent of all participants reported accessing at least one health service for any reason (i.e. not just related to drug and/or alcohol use) in the previous six months. Figure 47 shows the most common service accessed for any reason was a GP, followed by a dentist.

Figure 45: Main service accessed in the previous six months, 2016 and 2017



Source: QLD EDRS participant interviews

6.4 Drug treatment

Similar to previous years, participation in drug treatment was low among this sample. Only four participants reported currently being in some form of drug treatment—drug counselling.

6.5 Mental and physical health problems

6.5.1 General health

2017 was the second year that participants were asked about their general health. Nearly half of the participants regarded their general health as very good or excellent (Table 34) and only one as poor.

Table 31: Self-reported general health, 2017

	2017 (n=95) %
Excellent	**14**
Very good	**33**
Good	**40**
Fair	**13**
Poor	**1**

Source: QLD EDRS participant interviews

6.5.2 Mental health problems and psychological distress (K10)

The Kessler Psychological Distress Scale (K10) (Kessler & Mroczek, 1994) was designed as a screening tool for measuring psychological distress. It has well-established psychometric properties and validity for identifying anxiety and affective disorders (Andrews & Slade, 2001). The K10 comprises 10 questions used to assess symptoms which respondents may have experienced during the previous four weeks.

A 5-point Likert scale is used for responses, which range from ‘all of the time’ to ‘none of the time’ with a maximum possible score of 50. K10 scores provide a risk assessment which is categorised into the following: ‘low’, likely to be well (scores 10–15); ‘moderate’, may have a mild mental disorder (scores 16–21); ‘high’, likely to have a moderate mental disorder (scores 22–29); ‘very high’, likely to have a severe mental disorder (scores 30–50).

In 2017, 63% of participants who commented reported experiencing moderate to very high levels of distress in the previous month (Table 35). This is higher than 2016 but similar to 2015 reports.

Table 32: K10 level of distress, 2015–17

	2015 (n=84) %	2016 (n=92) %	2017 (n=95) %
Low to no distress (0–15)	32	51	**37↓**
Moderate distress (16–21)	41	27	**33**
High distress (22–29)	24	17	**16**
Very high distress (30–50)	4	4	**15**

Source: QLD EDRS participant interviews

6.5.3 Self-reported mental problems and medication

In 2017, 43% of all participants reported a mental health problem during the previous six months, most commonly depression and anxiety (as previous years). There appeared to be more reports of bipolar disorder, drug induced psychosis and paranoia than 2016 (Table 36).

Table 33: Self-reported recent mental health problems, 2012–17

	2012 (n=22) %	2013 (n=38) %	2014 (n=30) %	2015 (n=37) %	2016 (n=28) %	2017 (n=43) %
Anxiety	45	61	70	43	61	**79**
Depression	68	61	63	62	64	**74**
Panic	14	18	17	11	11	**14**
OCD	9	11	13	11	0	**5**
Manic depression/bipolar disorder	9	8	7	5	4	**12**
Drug-induced psychosis	14	4	3	5	0	**12**
Schizophrenia	9	-	3	3	0	**5**
Paranoia	18	4	-	5	4	**16**
Any personality disorder	9	-	-	8	0	**5**
Other	18	20	23	32	7	**5**

Note: Multiple responses permitted. In 2017, 'other' included adjustment disorder, ASD and bulimia.
Source: QLD EDRS participant interviews

Twenty-nine per cent of all participants reported attending a health professional for a mental health problem in the previous six months. Of those, two-thirds (n=19) were prescribed medications:

- anti-depressants (i.e. Prozac, Lexapro, Mirtazepine, Valdoxan) —twelve participants
- benzodiazepines (i.e. Temazepam, Valium, lithium) —seven participants
- pharmaceutical stimulants (i.e. Ritalin) —six participants
- anti-psychotics (i.e. Abilify, Seroquel)—six participants.

One participant reported having been prescribed mood stabilisers.

7 RISK BEHAVIOURS

Key Points

- Reports of lifetime injection remained low, as did recent injection
- Ice, heroin and other illicit opioids were the drugs recently injected
- 76% reported having penetrative sex with a casual sex partner in the previous six months, with a decrease in those with more than ten casual partners.
- Similar to past years, drug use when having penetrative sex with a casual partner most commonly involved alcohol, cannabis and ecstasy.
- 76% scored eight or higher on the AUDIT, corresponding to drinking at levels which may be harmful to their health, with 21% having scores indicating a need for referral to specialist care.

7.1 Injecting risk behaviour

Participants who reported injecting drugs were asked a series of questions about their injecting drug use behaviour.

7.1.1 Lifetime injectors

Seven per cent of participants reported having ever injected a drug. All of those participants reported they had injected a drug in the previous six months (Table 37).

Table 34: Injecting risk behaviour, 2011–17

	2012 (n=62)	2013 (n=88)	2014 (n=100)	2015 (n=85)	2016 (n=92)	**2017 (n=100)**
Ever injected (%)	29	14	25	11	10	**7**
Median age first injected (range)	19 (13–43)	18 (15–26)	21 (14–35)	19 (17–28)	18 (16–38)	**20 (15-22)**
Injected last 6 months (%)	16	7	19	2	10	**7**

Source: QLD EDRS participant interviews

The mean age of first injection was 19 years (n = 7, range 15–22 years). The most common drugs first injected were speed and ice, followed by heroin, ecstasy and steroids.

7.1.2 Recent injectors and risky injecting behaviours

In 2017, seven participants reported injecting drugs in the previous month. Drugs injected over the last month included heroin (2 people), ice (one person), and other illicit opioids (one person). There were no reports of sharing needles within the last 6 months.

7.1.3 Injecting drug use in the general population

According to the recent 2016 NDSHS, 0.3% of Australians aged 14 years and over had injected a drug other than that prescribed to them at least once in the last 12 months (AIHW, 2017).

Queensland Needle and Syringe Programs (NSP) reported supplying 5,202,400 syringes to service users and providing 183,204 occasions of service during 2015 (QLD Health, 2016). Unlike EDRS participants, opioids were the drugs most injected by NSP clients. However, the average age for NSP clients in 2015 was 38 years, with clients aged over 35 years comprising 61% of the occasions of service. In contrast, 73% of 2016 EDRS participants were under the age of 25 years. NSPs reported that amphetamine use was more prevalent in clients under 25 years.

7.2.1 Sexual risk behaviours

Participants were asked optional questions about whether they engaged in sexual behaviour with a casual sex partner. In 2017, all 100 participants completed this section, with 76 participants reporting penetrative sex with a casual sex partner at least once in the previous six months (Table 38). More participants reported a single casual partner in 2017 than in 2016, and fewer reported having had more than ten casual partners over the last six months than in 2016 ($p < 0.05$ for both).

Table 35: Number of casual partners with whom participants had penetrative sex in previous six months, 2015–17

	2015 (n=60) %	**2016 (n=59) %**	**2017 (n=76) %**
One person	40	22	**26**
Two people	18	12	**21**
3–5 people	27	32	**29**
6–10 people	12	17	**17**
More than 10 people	3	17	**7**

Source: QLD EDRS participant interviews

Among those who reported having penetrative sex with a casual sex partner in the previous six months (n = 76), 92% reported having done so while under the influence of drugs. Table 39 shows that 93% did this more often than once.

Table 36: Penetrative sex with a casual sex partner while under the influence of a drug in the previous six months, 2015–17

	2015 (n=57) %	**2016 (n=50) %**	**2017 (n=70) %**
Once	14	16	**7**
Twice	18	8	**16**
3–5 times	25	24	**30**
6–10 times	21	20	**23**
More than 10 times	23	32	**24**

Source: QLD EDRS participant interviews

In 2017, alcohol was still the most commonly used drug the most recent time they had penetrative sex with a casual sex partner in the previous six months (Table 40). There was an increase in reports of having used cannabis the most recent time since 2016, with reports similar to 2015 ($p < 0.05$).

Table 37: Drugs used most recent time of penetrative sex with a casual sex partner while under the influence, 2015–17

Substance	2015 (n=57) %	**2016 (n=50) %**	**2017 (n=70) %**
Alcohol	82	66	**79**
Ecstasy	53	50	**61**
Cannabis	67	48	**64↑**
Cocaine	12	6	**10**
LSD	5	8	**4**
Ice	9	10	**4**
Speed	4	2	**3**
MDA	2	2	**3**
Amyl nitrate	9	2	**1**
Benzodiazepines	5	2	**3**
Nitrous oxide	0	0	**3**
Pharmaceutical stimulants	4	6	**4**
Mushrooms	2	2	**0**
GHB	-	2	**1**
Ketamine	-	4	**3**

Note: Multiple responses permitted. Arrow symbol signifies a significant difference ($p<0.05$).
Source: QLD EDRS interview participants

In 2017, 49% of those who had had penetrative sex while under the influence of drugs in the previous six months reported using a protective barrier (e.g. a condom) the most recent time,

with 47% using a barrier the most recent time they had penetrative sex with a casual partner while sober.

When asked how often participants used condoms or other barriers when having sex with casual sex partners while under the influence of drugs, 39% reported doing so every time (Table 41), although this is less than the number who reported doing so last time.

Table 38: Frequency of condom or barrier use when having penetrative sex with a casual sex partner while under the influence of drugs, 2015–17

	2015 (n=57) %	**2016 (n=50) %**	**2017 (n=70) %**
Every time	26	38	**29**
Often	19	22	**20**
Sometimes	12	8	**16**
Rarely	19	10	**17**
Never	23	22	**19**

Note: Those who reported 'don't know' have been excluded from analysis. Arrow symbol signifies a significant difference ($p < 0.05$). Source: QLD EDRS participant interviews

7.2.2 Sexually transmitted infections

In 2017, 97 participants responded to questions about their sexual health. Among these, 51% reported having a sexual health check-up in the previous 12 months, similar to 2016 levels. Only 10% of participants reported ever having had a sexually transmitted infection (STI; Table 42).

Table 39: STI check-ups, 2015–17

	2015 %	**2016 %**	**2017 %**
Had a sexual health check-up	(n=81)	(n=92)	**(n=97)**
No	33	39	**42**
Yes, in the last year	44	52	**51**
Yes, more than one year ago	22	9	**4**
Ever diagnosed with STI	(n=76)	(n=89)	**(n=96)**
No	80	82	**86**
Yes, in the last year	7	9	**7**
Yes, more than one year ago	13	9	**3**

Note: Those who reported 'don't know' were excluded from the analysis. Percentages may not total 100% due to rounding. Source: QLD EDRS participant interviews

7.3 The Alcohol Use Disorder Identification Test (AUDIT)

Questions were asked to identify participants with alcohol problems using the Alcohol Use Disorder Identification Test (AUDIT) (Saunders, Aasland, Babor, De La Fuente, & Grant, 1993). The AUDIT is a 10-item scale, and respondents' total score places them into one of four 'zones' or risk levels. A total score of eight or more is an indication of being in one of three at-risk zones ranged according to severity. Intervention strategies are suggested for each zone (Babor et al., 2001).

In 2017, 76% of participants scored eight or higher on the AUDIT, corresponding to drinking at levels which may be harmful to their health (Table 43). The mean score was 13, corresponding to Zone II. This was similar to 2015 and 2016. An increase was noted from 2016 in the proportion of drinkers for whom specialist diagnosis/treatment was recommended. This represented a return to similar levels reported in 2015.

Table 40: AUDIT results and recommended intervention, 2015–17

	2015 (n=85) %	**2016 (n=92) %**	**2017 (n=100) %**	**Intervention recommended**
Zone I (scores 0–7)	21	29	**24**	Alcohol education
Zone II (scores 8–15)	36	37	**43**	Simple advice
Zone III (scores 16–19)	15	16	**12**	Simple advice plus brief counselling and continued monitoring
Zone IV (scores 20–40)	27	17	**21**	Referral to specialist for diagnosis and treatment

Note: Percentages may not total 100% due to rounding. Arrow symbol signifies a significant difference ($p < 0.05$).
Source: QLD EDRS participant interviews

7.4 Driving risk behaviour

Participants were asked a series of questions about driving under the influence of alcohol and/or other drugs. In 2017, 82% of participants reported driving a vehicle during the previous six months. Among these (n = 82), 28% reported driving while over the limit of alcohol in the previous six months. This is similar to the previous year (30% in 2016). Half (50%) of participants reported recently driving soon after taking any drug (within three hours).

8 LAW ENFORCEMENT RELATED TRENDS ASSOCIATED WITH REGULAR PSYCHOSTIMULANT USE

8.1 Reports of criminal activity among RPU

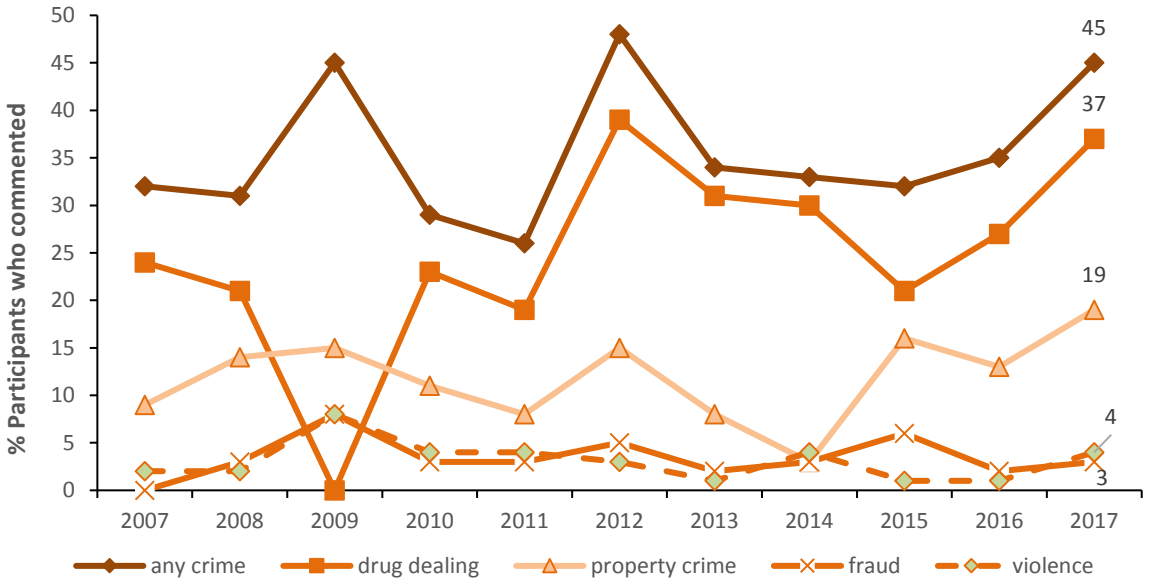
Key Points

- Prison history remained low among participants (3%).
- 12% reported being arrested in the last year.
- 37% reported drug dealing in the previous month.

Three per cent of participants reported having been to prison, while 12% reported they had been arrested in the previous year. The most common reason for arrest was use/possession of drugs (seven), followed by violent crime (two), and public order offences (two). Other offences included property crime, use or possession of weapons, and alcohol and driving, and three participants did not specify.

Similar to 2016, 45% of participants reported engaging in some form of criminal activity in the previous month (Figure 52). The most commonly reported crime was drug dealing, reported by 45% of the sample.

Figure 46: **Criminal activity in the last month, 2007–17**



Source: QLD EDRS participant interviews

8.2 Arrests

Table 44 presents the most recent available data for drug-related arrests made by the Queensland Police Service (QPS). The overall pattern of arrests during the 2015–16 period was similar to 2014–15, with the majority of arrests related to cannabis (59%) followed by amphetamine-type stimulants (24%). A total of 45,749 arrests were recorded, compared with 40,404 in 2014–15 (Table 44). This represented an overall increase of 13% in arrests, with greater increases in arrests relating to consumption of hallucinogens (44%), amphetamine type stimulants (33%) and heroin or other opioids (21%). Arrests relating to provision of heroin (86%), hallucinogens (50%) and cocaine (30%) increased. There was no substantial increase in arrests for provision or consumption of cannabis or steroids but arrest numbers remained high for the former.

Overall reporting of drug offences in Queensland for 2015–16 were approximately 10% higher than 2014–15. Drunk-driving offences were up 19% over the previous year. Males were more likely to offend than females (74% of drug offences were male) and the largest offender age group was 20–24-year-olds (20%). The 15–34 age group (most closely aligned with EDRS participants) accounted for over half (57%) of all drug offences (QPS 2016).

Table 41: Drug-related arrests by QPS by drug type, 2014–15 and 2015-16

	Consumer		Provider		Total	
	2014–15	**2015-16**	2014–15	**2015-16**	2014–15	**2015-16**
Cannabis	21,211	**22,610**	2639	**2697**	23,850	**25,307**
Amphetamine-type stimulants [a]	8462	**11,260**	1071	**1247**	9533	**12,507**
Other/unknown	4 690	**5310**	658	**678**	5348	**5988**
Heroin/other opioids	284	**345**	29	**54**	313	**399**
Steroids	573	**596**	129	**109**	702	**705**
Cocaine	317	**359**	76	**99**	393	**458**
Hallucinogens	215	**310**	50	**75**	265	**385**
Total	35,752	**40,790**	4652	**4,959**	40,404	**45,749**

[a] includes amphetamine, methylamphetamine, and phenethylamines
Note: consumer=use, possession or administering for own use; provider=importation, trafficking, selling, cultivation and manufacture. Source: ACIC, 2017

Cannabis accounted for the greatest proportion of drug seizures (by weight and number) in Queensland during 2015–16, followed by amphetamine-type stimulants (ATS; Table 45) and then cocaine. For the Australian Federal Police (AFP), the highest numbers of seizures were for ATS, cannabis and cocaine, with substantial weights of AFP seizures for cocaine, ATS and hallucinogens. The weight of AFP seizures for cocaine and hallucinogens increased very significantly. QPS seizure numbers increased for opioids, with greater quantities seized for heroin.

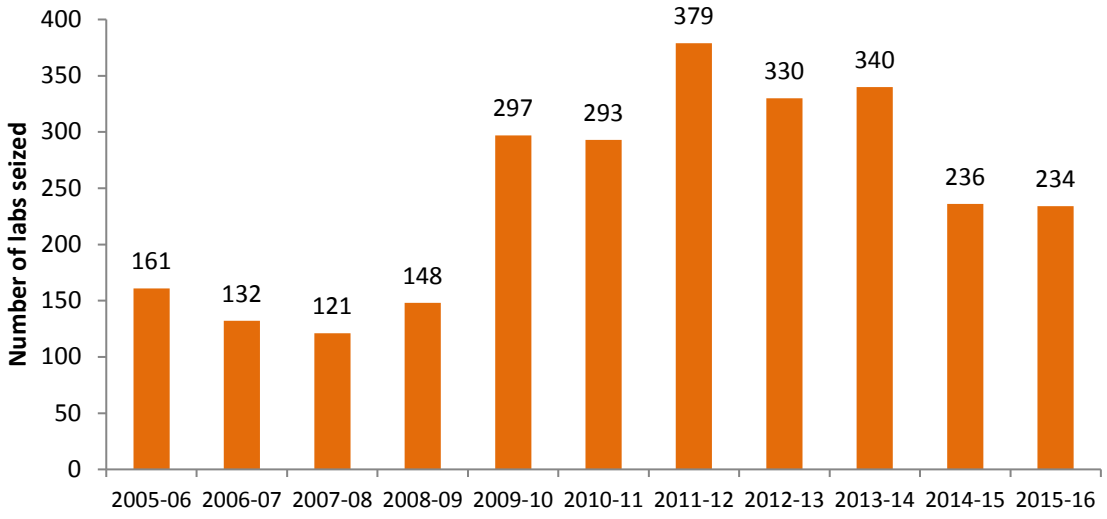
Table 42: Queensland drug seizures by service and drug type, 2014-2015 and 2015-16

	Police service	No of seizures		Weight (grams)	
		2014–15	**2015-16**	2014–15	**2015-16**
Cannabis	QPS	17,305	**18,358**	818,119	**798,903**
	AFP	227	**77**	14,500	**18,827**
Amphetamine-type stimulants	QPS	6268	**8195**	45,545	**51,216**
	AFP	459	**99**	146,306	**96,385**
Heroin	QPS	209	**218**	1226	**2636**
	AFP	11	**1**	4552	**<1**
Other opioids	QPS	3	**13**	0	**350**
	AFP	9	**8**	5152	**1650**
Cocaine	QPS	251	**292**	3659	**3575**
	AFP	164	**44**	56,741	**129,024**
Steroids	QPS	124	**53**	5733	**752**
	AFP	12	**4**	10,568	**320**
Hallucinogens	QPS	29	**29**	604	**378**
	AFP	31	**15**	742	**33,482**
Other/unknown drugs	QPS	870	**846**	281,831	**30,309**
	AFP	269	**95**	76,716	**59,376**

Note: Includes only those seizures for which a drug weight was recorded. No adjustment has been made for double counting data from joint operations between the AFP and QPS.
Source: ACIC, 2017

In Queensland there were 234 clandestine lab detections in 2015-16 (Figure 53), with 43% being amphetamine-type stimulants (excluding MDMA) labs. The number of MDMA clandestine lab detections remained low (two for Queensland).

Figure 47: Clandestine labs seized in Queensland from 2005–06 to 2015–16



Source: ACIC, 2017

SPECIAL TOPICS OF INTEREST

Key Points

- 23% reported ever buying drugs online, with 18% doing so in the previous year.
- Dark web marketplaces were the most common online location for purchasing.
- The most common drugs purchased online were LSD and ecstasy.

9.1 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' market places 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 acquisition of NPS online. The EDRS collected data to obtain: (1) prevalence of online drug purchasing; (2) patterns of online drug purchasing; and (3) familiarity with the internet as an avenue for purchase of illicit substances.

In 2017, 23% of Queensland EDRS participants reported that they had ever purchased an illicit drug online, with 18% having done so in the previous year. Of those who had bought online in the last year, purchases were made once to more than five times (Table 47).

Table 43: Number recent online illicit drug purchases, 2016 and 2017

How many online purchases of illicit drugs in the past 12 months? [a]	2016 (n=31) %	2017 (n=18) %
Once	29% (n=9^)	**28%** (n=5^)
Twice	16% (n=5^)	**28%** (n=5^)
3-5 times	13% (n=4^)	**11%** (n=2^)
More than 5 times	32% (n=10^)	**33%** (n=6^)

[a] Of those who had ever purchased illicit drugs online ^Small numbers; interpret with caution
Source: EDRS participant interview

Participants were asked what proportion of their drugs was purchased online. The majority (44%) reported that less than 25% of their drugs were purchased online, with one person reporting that all of their drugs were purchased online. Results are summarised in Table 48.

Table 44: Proportion of drugs purchased online, 2016 and 2017

What proportion of all purchased drugs was purchased online? [a]	2016 (n=31) %	2017 (n=18) %
Less than 25%	55% (n=17)	**44%** (n=8^)
Between 25% and 49%	6% (n=2^)	**39%** (n=7^)
Between 50% and 74%	10% (n=3^)	**0**
Between 75% and 99%	13% (n=4^)	**11%** (n=2^)
All (100%)	6% (n=2^)	**6%** (n=1^)

[a] Of those who had ever purchased illicit drugs online ^ Small numbers; interpret with caution
Source: EDRS participant interviews

Of those purchasing recently from the internet (n = 18), 17% reported that they were purchasing for the purposes of supplying to friends, 17% for the purposes of selling for a profit, and 22% for both supply to friends and for profit.

Purchases of illicit drugs were primarily made from either international webstores (on the 'surface web'; 23%) or dark-net marketplaces such as AlphaBay (83%). If participants had purchased from a dark-net marketplace, they were asked to specify whether the retailer they purchased from was Australian (40%) or international (33%).

Illicit substances recently purchased online were specified (Table 49). Eighteen participants reported buying a traditional illicit substance online, of whom most reported this was LSD (56%) followed by ecstasy (50%) and cannabis (33%). Seven participants reported purchasing an NPS online: five from the 2C-X family and two DMT.

Table 45: Illicit substances purchased recently online, 2016 and 2017

Online substance purchased [a]	2016 %	2017 %
Traditional illicit substances	(n=31)	**(n=18)**
Ecstasy (any form)	52% (n=16)	**50% (n=9^)**
LSD	42% (n=13)	**56% (n=10)**
Cannabis	35% (n=11)	**33% (n=6^)**
Benzodiazepines	10% (n=3^)	**6% (n=1^)**
Ketamine	10% (n=3^)	**6% (n=1^)**
Methamphetamine (any form)	3% (n=1^)	**6% (n=1^)**
Mushrooms	13% (n=4^)	**17% (n=3^)**
Cocaine	3% (n=1^)	**28% (n=5^)**
Pharmaceutical stimulants	29% (n=9^)	**11% (n=2^)**
NPS illicit substances	(n=2) ^	**(n=7) ^**
2C-X family	(n=1)	**(n=5)**
DMT	(n=1)	**(n=2)**
NBOMe	0	**0**
Methylone	0	**(n=1)**
5-MeO-DMT	0	**(n=1)**
3-meo-PCP	-	**(n=1)**

[a] Of those who had ever purchased illicit drugs online; ^Small numbers; interpret with caution
Source: EDRS participant interviews

All EDRS participants were asked about their level of knowledge of, and familiarity with, the 'dark net' and marketplaces such as the now-closed Silk Road. Very few participants were unaware of the dark net (2%); nearly a quarter (23%) had used dark-net marketplaces to buy drugs. Results are given in Table 50.

Table 46: Familiarity with the dark net, 2016 and 2017

What is your level of knowledge of the dark net?	2016 (n=92) %	2017 (n=100) %
Never heard of the 'dark net'	2% (n=2)	**4% (n=4)**
Heard of the 'dark net' but never accessed it	38% (n=35)	**27% (n=27)**
Researched the dark net but never accessed it	13% (n=12)	**10% (n=10)**
Obtained drugs through a friend who purchased them from dark net	9% (n=8)	**23% (n=23)**
Accessed dark net marketplaces but never purchased from them	15% (n=14)	**16% (n=16)**
Purchased drugs from 'dark net' market places	23% (n=21)	**20% (n=20)**

Source: EDRS participant interviews

REFERENCES

ACIC (2017). Illicit Drug Data Report 2015/16. Canberra: Australian Criminal Intelligence Commission, Commonwealth of Australia.

AIHW (2017) National Drug Strategy Household Survey detailed report: 2016. Drug Statistics Series no. 28. Cat. no. PHE 214. Canberra: AIHW

AIHW (2015). Alcohol and other drug treatment services in Australia 2013-2014. Drug Treatment Series no. 25. Cat. No. HSE 158. Canberra: AIHW

AIHW (2014). National Drug Strategy Household Survey detailed report: 2013. Drug Statistics Series no. 28. Cat. no. PHE 183. Canberra: AIHW

American Psychiatric Association 2013. Diagnostic and Statistical Manual of Mental Disorders (Fifth Edition), Washington, DC, American Psychiatric Association.

Babor, T. F., Higgins-Biddle, J. C., Saunders, J. B., & Monteiro, M. G. (2001). AUDIT: The Alcohol Use Disorders Identification Test – Guidelines for Use in Primary Care, Second Edition. Geneva: World Health Organization, Department of Mental Health and Substance Dependence.

Berman, S. M., Kuczenski, R., McCracken, J. T., & London, E. D. (2008). Potential adverse effects of amphetamine treatment on brain and behavior: a review. Molecular Psychiatry, 14, 123-142.

Bruno, R., Matthews, A. J., Topp, L., Degenhardt, L., Gomez, R., & Dunn, M. (2009). Can the Severity of Dependence Scale be usefully applied to 'ecstasy'? Neuropsychobiology, 60, 137–147.

Burns, L., Roxburgh, A., Matthews, A., Bruno, R., Lenton, S., & Van Buskirk, J. (2014). The rise of new psychoactive substance use in Australia. Drug Testing and Analysis, 6(7-8), 846-849. doi:10.1002/dta.1626

Burns, L., & Van Buskirk, J. (2013). Shedding light on online stores for illicit and synthetic drugs Retrieved from The Conversation website 20/12/2014: http://theconversation.com/shedding-light-on-online-stores-for-illicit-and-synthetic-drugs-16580

Crime and Corruption Commission Queensland (2016) Illicit Drugs in Queensland: 2015-2016 Intelligence Assessment; retrieved from the CCC website 1/02/2017: http://www.ccc.qld.gov.au/crime/how-the-ccc-fights-crime/drugs-in-queensland

Dalgarno, P., Shewan, D. (1996). Illicit use of ketamine in Scotland. Journal of Psychoactive Drugs, 28, 191–199.

Dawe, S., Loxton, N. J., Hides, L., Kavanagh, D. J., & Mattick, R. P. (2002). Review of diagnostic screening instruments for alcohol and other drug use and other psychiatric disorders. Second edition. Sydney: Department of Health and Ageing, Australian Government.

Degenhardt, L., Bruno, R., & Topp, L. (2010). Is ecstasy a drug of dependence? Drug and Alcohol Dependence, 107, 1–10.

European Commission. (2014). Young people and drugs. Flash Eurobarometer 401. Retrieved from http://ec.europa.eu/public_opinion/flash/fl_401_en.pdf

European Monitoring Centre for Drugs and Drug Addiction. (2011). Online sales of new psychoactive substances/'legal highs': Summary of results from the 2011 multilingual snapshots. Luxembourg: Publications Office of the European Union.

European Monitoring Centre for Drugs and Drug Addiction. (2016a). EU Drug Markets Report. In-depth Analysis. Luxembourg: Publications Office of the European Union.

European Monitoring Centre for Drugs and Drug Addiction. (2016b). Health responses to new psychoactive substances. Luxembourg: Publications Office of the European Union.

European Monitoring Centre for Drugs and Drug Addiction. (2016c). The internet and drug markets. Luxembourg: Publications Office of the European Union.

Farah, M. J., Smith, M. E., Ilieva, I., & Hamilton, R. H. (2014). Cognitive enhancement. Wiley Interdisciplinary Reviews-Cognitive Science, 5, 95-103.

Grant, J., Potenza, M., Weinstein, A. & Gorelick, D. 2010. Introduction to Behavioral Addictions. The American Journal of Drug and Alcohol Abuse, 36, 233-241.

Hough, M., Warburton, H., Few, B., May, T., Man, L.-H., Witton, J., & Turnbull, P. J. (2003). A Growing Market: The Domestic Cultivation of Marijuana. York: Joseph Rowntree Foundation.

Iversen, J., & Maher, L. (2015). Australian NSP Survey 20 Year National Data Report 1995-2015. Sydney: The Kirby Institute.

Joshi, P. (2011). Use of cognitive enhancing substances by University students: a cross-sectional study. M.Pharm Thesis, Curtin University of Technology

Kessler, R., & Mroczek, D. (1994). Final version of our Non-specific Psychological Distress Scale. Ann Arbor (MI): Survey Research Centre of Institute for Social Research, University of Michigan.

Mazanov, J., Dunn, M., Connor, J., & Fielding, M.-L. (2013). Substance use to enhance academic performance among Australian university students. Performance Enhancement & Health 2(3), 110-118.

Oskooilar, N. (2005). A case of premature ventricular contractions with modafinil. American Journal of Psychiatry, 162, 1983-1984.

Petry, N. M., Stinson, F. S. & Grant, B. F. 2005. Comorbidity of DSM-IV pathological gambling and other psychiatric disorders: results from the National Epidemiologic Survey on Alcohol and Related Conditions. J Clin Psychiatry, 66, 564-574.

Ragan, C.I., Bard, I. & Singh, I. (2013). What should we do about student use of congitive enhancers? An analysis of current evidence. Neuropharmacology, 64, 588-595.

Roxburgh, A. and Burns, L (2015a).Cocaine and methamphetamine related drug-induced deaths in Australia, 2011. Sydney: National Drug and Alcohol Research Centre

Roxburgh, A. and Burns,L.(2015b). Accidental drug-induced deaths due to opioids in Australia, 2011. Sydney: National Drug and Alcohol Research Centre

Roxburgh, A., and Breen, C. (2017). Drug-related hospital stays in Australia 1993-2015. Sydney, National Drug and Alcohol Research Centre, University of New South Wales.

Queensland Health (2016). Queensland Minimum Data Set for Needle and Syringe Programs 2015. Brisbane: State of Queensland.

Queensland Police Service (2016). Annual Statistical Review 2015/2016. Brisbane: State of Queensland

Ragan, C. I., Bard, I., & Singh, I. (2013). What should we do about student use of cognitive enhancers? An analysis of current evidence. Neuropharmacology, 64, 588-595.

Saunders, J. B., Aasland, O. G., Babor, T. F., De La Fuente, J. R., & Grant, M. (1993). Development of the Alcohol Use Disorders Identification Test (AUDIT): WHO collaborative project on early detection of persons with harmful alcohol consumption. Addiction, 88, 791-804.

Sim, T., Gentile, D. A., Bricolo, F., Serpelloni, G. & Gulamoydeen, F. 2012. A conceptual review of research on the pathological use of computers, video games, and the Internet. International Journal of Mental Health and Addiction, Epub ahead of print 13 January 2012. DOI: 10.1007/s11469-011-9369-7.

Smirnov, A., Najman, J. M., Hayatbakhsh, R., Plotnikova, M., Wells, H., Legosz, M., & Kemp, R. (2014). Corrigendum to “Young adults' trajectories of Ecstasy use: A population based study” [Addictive Behaviors Volume 38 (2013) 2667–2674]. Addictive Behaviors, 39(5), 1018-1019.

Sutherland, R., Barratt, M., Peacock, A., Dietze, P., Breen, C., Burns, L. & Bruno, R. 2017 (in press). New psychoactive substances: supply and purchasing patterns in Australia. Human Psychopharmacology: Clinical and Experimental, 10.1002/hup.2577.

Thomas, S. A., Piterman, L. & Jackson, A. C. 2008. Problem gambling: what general practitioners need to know and do about it? Medical Journal of Australia, 189, 135-136.

Widyanto, L., Griffiths, M. D. & Brunsden, V. 2010. A psychometric comparison of the Internet Addiction Test, the Internet-Related Problem Scale, and self-diagnosis. Cyberpsychol Behav Soc Netw, 14, 141-9.