

Northern Territory

J. Uporova

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

Australian Drug Trends Series No. 197

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**NORTHERN TERRITORY
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System (EDRS)**

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National Drug and Alcohol Research Centre
UNSW Australia

Australian Drug Trends Series No. 197

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ABBREVIATIONS

2C-B	4-bromo-2,5-dimethoxyphenethylamine
2C-E	2,5-dimethoxy-4-ethylphenethylamine
2C-I	2,5-dimethoxy-4-iodophenethylamine
5-MeO-DMT	5-methoxy-dimethyltryptamine
ACPR	Australasian Centre for Policing Research
A&TSI	Aboriginal and/or Torres Strait Islander
AIHW	Australian Institute of Health and Welfare
AUDIT	Alcohol Use Disorders Identification Test
BZP	1-benzylpiperazine(s)
CNS	central nervous system
DASSA	Drug and Alcohol Services South Australia
DMT	dimethyl tryptamine
DOB	2,5-dimethoxy-4-bromoamphetamine
DOI	death on impact; 2,5-dimethoxy-4-iodoamphetamine
DOM	2,5-dimethoxy-4-methylamphetamine
DXM	dextromethorphan
EDRS	Ecstasy and related Drugs Reporting System
ERD	ecstasy and related drugs
GBL	gamma-butyrolactone
GHB	gamma-hydroxybutyrate
IDRS	Illicit Drug Reporting System
K10	Kessler Psychological Distress Scale
LSD	<i>d</i> -lysergic acid diethylamide
MDA	3,4-methylenedioxyamphetamine
MDMA	3,4-methylenedioxymethamphetamine
MDPV	3,4-methylenedioxypropylone; ivory wave
MPTP	1-methyl-4-phenyl-1,2,5,6-tetrahydropyridine

N	(or n) Number of participants
NDARC	National Drug and Alcohol Research Centre
NDLERF	National Drug Law Enforcement Research Fund
NDSHS	National Drug Strategy Household Survey
NPS	new psychoactive substances
NSW	New South Wales
NT	Northern Territory
OTC	over the counter
PDI	Party Drugs Initiative
PIED	performance and image enhancing drugs
PMA	para-methoxyamphetamine
PNS	peripheral nervous system
PWID	people who inject drugs
QLD	Queensland
ROA	route of administration
SA	South Australia
SDS	Severity of Dependence Scale
STI	sexually transmitted infection(s)
THC	delta-9-tetrahydrocannabinol
VIC	Victoria

GLOSSARY OF TERMS

Binge	Use over 48 hours without sleep
Bump	A bump refers to a small amount of powder, typically measured and snorted from the end of a key, the corner of a plastic card or a 'bumper'
Bumper	A bumper is a small glass nasal inhaler, purchased from tobacconists, used to store and administer powdered substances such as ketamine
Cap	Capsule
Cocaine	A central nervous system stimulant, obtained from the cocoa plant. Cocaine hydrochloride, the salt, is the more common form used in Australia. The freebase form is called 'crack'; little or no crack is available or used in Australia
Crystal	Street term for crystal methamphetamine, a potent form of methamphetamine. Also known as 'ice'
Daily use	Use occurring on each day in the past six months, based on a maximum of 180 days
Ecstasy	Street term for MDMA (3,4-methylenedioxymethamphetamine), which may contain a range of other substances. It is a hallucinogenic amphetamine
GBL	Acronym for gamma-butyrolactone. It is a GHB precursor and substitute, which metabolises into GHB in the stomach
GHB	Acronym for gamma-hydroxy butyrate. It is a central nervous system depressant. Other known terms include 'GBH' and 'liquid ecstasy'; however, the latter is misleading as GHB is a depressant, not a stimulant
Illicit	Illicit refers to pharmaceuticals obtained from a prescription in someone else's name (e.g. through buying them from a dealer or obtaining them from a friend or partner)
Ketamine	It is a dissociative psychedelic used as a veterinary and human anaesthetic
Licit	Licit refers to pharmaceuticals (e.g. benzodiazepines, antidepressants and opioids such as methadone, buprenorphine, morphine and oxycodone) obtained by a prescription in the user's name. This definition does not take account of 'doctor shopping' practices; however, it differentiates between prescriptions for self as opposed to pharmaceuticals bought on the street or those prescribed to a friend or partner

Lifetime injection	Injection (typically intravenous) on at least one occasion in the participant's lifetime
Lifetime use	Use on at least one occasion in the participant's lifetime via one or more of the following routes of administration: inject; smoke; snort; swallow; and/or shaft/shelve
LSD	Acronym for <i>d</i> -lysergic acid diethylamide. It is a powerful hallucinogen
MDA	Acronym for 3,4-methylenedioxyamphetamine. It is classed as a stimulant hallucinogen. It is closely related to MDMA (and is sometimes found in ecstasy pills); however, its effects are said to be slightly more psychedelic
Methamphetamine	An analogue of amphetamine, it is a central nervous system stimulant. The three main forms of methamphetamine in Australia are methamphetamine powder ('speed'), methamphetamine base ('base') and crystalline methamphetamine ('crystal', 'ice')
Opiates	Opiates are derived directly from the opium poppy by departing and purifying the various chemicals in the poppy
Opioids	Opioids include all opiates but also include chemicals that have been synthesised in some way, e.g. heroin is an opioid but not an opiate, morphine is both an opiate and opioid
Point	0.1 gram although may also be used as a term referring to an amount for one injection
Recent injection	Injection (typically intravenous) in the last six months
Recent use	Use in the last six months via one or more of the following routes of administration: inject; smoke; snort; swallow; and/or shaft/shelve
Session	A period of continuous use without sleeping in between
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; shafting/shelving and/or swallowing

GUIDE TO DAYS OF USE

180 days	daily use over preceding six months
90 days	use every second day
24 days	weekly use
12 days	fortnightly use
6 days	monthly use

EXECUTIVE SUMMARY

The 2017 NT Trends in Ecstasy and Related Drug Markets report represents the fifteenth year in which data has been collected in the NT on the markets for ecstasy and related drugs (ERD). The Ecstasy and related Drugs Reporting System (EDRS; formerly the Party Drugs Initiative, or PDI) is the most comprehensive and detailed study of ERD markets in the NT.

Using a similar methodology to the Illicit Drug Reporting System (IDRS), the EDRS monitors the price, purity and availability of 'ecstasy' (3,4-methylenedioxymethamphetamine; MDMA) and other related drugs such as methamphetamine, cocaine, gamma-hydroxybutyrate (GHB), d-lysergic acid diethylamide (LSD) and ketamine. It also examines trends in the use and harms of these drugs. It utilises data from surveys with people who use ecstasy and/or stimulants regularly.

People who regularly use ecstasy and/or stimulants are recruited because they are considered a sentinel group to detect illicit drug trends. The information from this survey is, therefore, not representative of ecstasy and other drug consumers in the general population, but is indicative of emerging trends that may warrant further monitoring.

The findings from each year not only provide a snapshot of the drug markets in the NT, but also help to provide an evidence base for policy decisions, inform harm reduction messages, and provide directions for further investigation when issues of concern are detected. Continued monitoring of the ERD markets in the NT will help add to our understanding of the use of these drugs; the price, purity and availability of these drugs and how these may impact on each other; and the associated harms which may stem from the use of these drugs.

EXECUTIVE SUMMARY SNAPSHOT

Demographics of EDRS participants

- 86 participants were interviewed in the 2017 NT EDRS (55 males and 31 females).
- Participants were young (mean age of 23 years), most commonly spoke English as their first language (95%), and were Australian born (84%).
- Most participants were heterosexual (88%), single (62%), living in rental accommodation (51%) and a third were employed full-time (35%).
- One participant reported being currently in drug treatment.
- Overall, the 2016 and 2017 participants were similar in demographic composition with the exception to full-time employment, tertiary qualifications and mean weekly income which had significantly decreased in 2017 compared to 2016 ($p < 0.05$).

Patterns of drug use

- Participants had experience with a wide range of drugs, having used a median of 13 different drug types during their lifetime and eight different drug types over the past six months.
- Fourteen percent reported having ever injected a drug.

- Reported lifetime and recent use of particular substances remained stable from 2016 to 2017 with the exception that lifetime use decreased for methamphetamine powder (from 74% to 59%) and recent use of nitrous oxide decreased from 17% to 5% in 2017.
- Similar to 2016, cannabis was the main drug of choice for the largest percentage of the 2017 sample (36%), closely followed by ecstasy (34%).
- Just under half (44%) of the group had recently binged on ERD. The median number of binge episodes was two in the past six months.

Ecstasy

Consumption patterns

- Ecstasy was used on a median of 12 days over the past six months (i.e. approximately fortnightly).
- Ecstasy pills continued to be the most commonly used form of ecstasy in the six months preceding interview (86%), followed by MDMA crystal (71%), capsules (57%) and powder (20%).
- In 2017, past six months use of MDMA crystal significantly increased to 71% compared to 43% in 2016 ($p < 0.01$).
- During a 'typical' occasion of use, participants reported using two ecstasy pills (range=1-10) or one ecstasy capsule (range=1-10) or 0.5 gram of MDMA crystal (range=0.1-1) or 0.5 gram of ecstasy powder (range=.01-1.5).
- Swallowing was the main route of administration for pills, capsules and MDMA crystal whilst snorting was the primary route of administration for powder.
- Ecstasy was most commonly last used at a nightclub.
- Ecstasy use within the last 12 months remained more common in NT across the general population than nationally (2.9% vs. 2.2%, respectively) (Australian Institute of Health and Welfare 2017).

Market characteristics

Ecstasy pills

- *Price*: \$35 per pill, stable.
- *Perceived purity*: Currently medium/high with similar percentages reporting that the purity had remained stable (33%), decreased (28%) or fluctuated (27%) in past six months.
- *Availability*: Currently easy to very easy to obtain and stable.

Ecstasy capsules

- *Price*: \$35 per capsule, stable.
- *Perceived purity*: Currently reported as medium/high and stable.
- *Availability*: Currently easy to very easy to obtain and stable.

Ecstasy powder

- Numbers too small ($n < 10$) to report.

MDMA crystal

- *Price*: \$300 per gram, stable.
- *Perceived purity*: Currently high and stable.
- *Availability*: Currently easy to very easy to obtain and stable.

Methamphetamine

Consumption patterns

Speed

- A significantly reduced percentage of the NT EDRS sample (59%) reported lifetime use of speed in 2017 compared to 2016 (74%).
- One-fifth (20%) had used speed during the preceding six months in 2017.
- Speed was used on a median of two days over the preceding six months and was primarily snorted (50%).

Base

- A minority of the sample had used base in their lifetime (15%) and few reported recent use (1%).
- The median age at which base was first used was 17 years (range=15–23).

Crystal methamphetamine

- Nearly half (48%) of the participants had ever used crystal methamphetamine and a quarter (24%) had done so recently.
- Crystal methamphetamine was used on a median of five days over the preceding six months (compared to 12.5 days in 2016) and was most commonly smoked.
- The quantity of use appeared to remain relatively stable in 2017.
- Crystal methamphetamine was commonly purchased from known dealers, with the majority of purchases taking place in private settings.

General methamphetamine consumption observations

- The use of methamphetamine among the NT general population has decreased from 2.8% in 2013 to 1.4% in 2016 (Australian Institute of Health and Welfare 2017).

Market characteristics

Speed

- *Price*: Numbers too small to report (n<10).
- *Perceived purity*: Currently high.
- *Availability*: Currently easy to very easy to obtain, stable.

Base

- Numbers too small to report (n<10).

Crystal

- *Price*: \$100 per point and stable.
- *Perceived purity*: Currently medium and stable (in 2016, the purity was reported as high and fluctuating).
- *Availability*: Currently very easy to obtain, stable.

Cocaine

Consumption patterns

- The majority of the sample (77%) had tried cocaine at least once, and over half (57%) had used it recently.
- Cocaine was used on a median of two days (i.e. every third month) over the preceding six months.
- The frequency and the quantities of cocaine used remained stable from 2016.
- Cocaine was most commonly purchased from friends in private settings.
- There was a non-significant increase of past 12 months use of cocaine in the

Australian population between 2013 and 2016 (from 2.1% to 2.5%, respectively), however it has remained relatively stable in the NT (2.4% in 2013 to 2.5% in 2016; Australian Institute of Health and Welfare 2017).

Market characteristics

- *Price*: \$350 per gram and mostly stable.
- *Perceived purity*: Medium and mostly stable (in 2016, the purity was reported as low to medium and fluctuating and more participants believed that the purity was high in 2017 (28%) compared to 4% in 2016).
- *Availability*: Mixed reports on the ease of accessibility of cocaine, similar to 2016.

LSD

Consumption patterns

- The majority (76%) of the sample had tried LSD at least once and nearly half (47%) had used it recently.
- LSD was used on a median of two days over the preceding six months (every third month).
- LSD was most often purchased and used within private settings.

Market characteristics

- *Price*: \$25 per tab and mostly stable.
- *Perceived purity*: Currently high and stable (in 2016, the purity was reported as fluctuating).
- *Availability*: Currently easy to very easy, and stable.

Ketamine

Consumption patterns

- A third of the sample (33%) had tried ketamine at least once and 11% had used it recently.
- Ketamine was used on a median of one day over the preceding six months.
- NT participants reported that the most common route of ketamine administration was snorting.

Market characteristics

- There were no reliable NT data reported on the price, purity or availability of ketamine for 2017.

GHB

Consumption patterns

- Compared to other illicit drugs, GHB had been used by a smaller percentage of participants in their lifetime (15%) and recently (7%).

Market characteristics

- There was no reliable NT data reported on the price, purity or availability of GHB for 2017.

Cannabis

Consumption patterns

- The vast majority had tried cannabis at least once (97%) and the vast majority had used it recently (88%).
- There was a non-significant decrease in frequency of use, with participants reporting cannabis use on a median of 96 days (every other day) over the preceding six months, compared to 165 days in 2016.
- Almost half (44%) of recent cannabis consumers smoked daily.
- Both forms of cannabis (hydro and bush) are commonly purchased and consumed within private settings in the NT.
- In the general population, the NT continued to have the highest percentage of people reporting past 12 month cannabis use than any other jurisdiction (16% vs. national rate of 10.4%).

Market characteristics

Hydro

- *Price:* \$30 per gram; \$400 per ounce and stable.
- *Perceived potency:* Currently high and stable.
- *Availability:* Currently very easy to obtain and stable.

Bush

- *Price:* \$30 per gram; \$350 per ounce, and stable.
- *Perceived potency:* Currently low and stable.
- *Availability:* Currently easy to very easy to obtain and stable.

Other drug use

Alcohol

- All participants reported lifetime use, and 99% reported recent alcohol use.
- There was a significant decrease in frequency of use in 2017, with participants reporting alcohol use on a median of 44 days (twice a week) compared to 58 days in 2016 ($p < 0.01$).

Tobacco

- The majority (92%) of the NT sample had used tobacco at least once and 86% had smoked within the past six months.
- Over half (51%) of recent tobacco consumers were daily smokers.

E-cigarettes

- Fifty-eight percent of the NT sample reported they had used e-cigarettes in their lifetime and 26% had used e-cigarettes recently.

Benzodiazepines

- One-fifth of the NT sample had recently used benzodiazepines. Illicit use was notably more common than licit use in the past six months (18% and 6% respectively).

Antidepressants

- Seven percent of the NT sample had used antidepressant at least once in their lifetime and one participant had recently used illicit antidepressants.

Inhalants

- One-fifth (19%) reported lifetime use of amyl nitrite and 8% reported recent use.
- A third (37%) reported lifetime use of nitrous oxide and a significantly lower percentage reported recent nitrous oxide use compared to 2016 (5% vs. 17%, $p<0.05$).

MDA

- Fourteen percent of the NT sample reported they had used MDA in their lifetime and 6% had used MDA recently.

Heroin and other opiates

- Small numbers reported lifetime use of heroin and other opiates ($n<10$).

Mushrooms

- Half the sample (47%) reported lifetime use of mushrooms and eight percent of the NT participants had used mushrooms in the past six months.

Pharmaceutical stimulants

- Thirty-three percent reported to have ever used pharmaceutical stimulants and recent illicit use was notably more common than licit use (14% vs. 2%).

Over the counter (OTC) drugs

- Twenty-seven percent of the NT sample reported they had used OTC codeine in their lifetime and 13% had used OTC codeine recently.

Antipsychotics

- Five NT participants reported lifetime use of illicit antipsychotics and two reported recent use.

Performance and image enhancing drugs (PIED)

- Three participants reported recent use of PIEDs and one participant reported recent use.

New psychoactive substance (NPS) use

- Almost one-third (29%) of the sample reported using NPS in the last six months.
- The most common used NPS were 'other synthetic cannabinoids' (34%), DMT (22%) and herbal highs (15%).

Health-related harms associated with ERD use

Overdose

- One-third (33%) reported having overdosed on a stimulant drug and nearly a fifth (18%) reported a depressant drug overdose in the 12 months preceding interview.
- Significantly more participants reported that they contributed their most recent stimulant overdose to ecstasy in 2017 compared to 2016 (72% vs. 33%; $p<0.05$).

Health service usage

- Three-quarters of the sample (79%) reported accessing a health service in the past six months, mostly commonly a GP.
- A fifth of the sample (18%) reported accessing a health service in the past six months related to drug and alcohol use.

Mental health

- Two-fifths had recently experienced a mental health problem, of which 63% had sought help from a health professional.
- Participants completed the K10. Levels of distress among the sample were higher than Australian general population rates, and over time there have been increasing percentage reporting high levels of psychological distress among NT participants.

Risk behaviours

- Twelve participants (14%) reported to have injected a drug in their lifetime and three participants (4%) had done so in the past month.
- Three quarters of the sample (75%) had recently had penetrative sex with a casual partner. A higher percentage of the sample reportedly used a protective sexual barrier when they were sober (58%) than when they were last under the influence of drugs or alcohol (48%).
- Of the 75 participants who had driven in the past six months, over half had driven over the perceived legal alcohol limit (52%) or after taking an illicit drug (71%).
- Participants completed the Alcohol Use Disorders Identification Test (AUDIT) and the majority (88%) of the group fell in the 'harmful drinking' range.

Law enforcement-related trends associated with ERD use

- Eleven participants (13%) had been arrested over the past year.
- One-third of the sample (37%) had committed a crime within the past month; most commonly drug dealing (30%).
- Four percent of the sample reported a prison history in their lifetime.

Special topics of interest

Online purchasing patterns:

- One quarter (26%) of the NT EDRS participants reported to have purchased drugs online at least once in their lifetime.
- Thirteen participants (15%) reported to have purchased drugs online in the last 12 months.
- The majority (67%) of those who had purchased drugs online in the last 12 months had done so through the 'dark net' marketplaces.
- The most popular drugs purchased online were cannabis, ecstasy and LSD.
- A small minority (12%) of NT EDRS participants had never heard about the 'dark net'.

IMPLICATIONS

The NT EDRS aims to monitor trends in the Darwin ecstasy and related drug (ERD) markets and to investigate harms associated with ERD use. The 2017 NT EDRS revealed changes in drug markets and indications of drug-related harms.

Tobacco and cannabis use

There were a number of findings pertaining to tobacco and cannabis use among the participants in 2017 that should be highlighted. Reported tobacco use remained stable for both lifetime and recent use between the years 2016 and 2017, however there was a non-significant decline in the percentage who reported themselves to be daily tobacco smokers (63% in 2016 to 51% in 2017). In addition, despite a small increase of reported recent cannabis use (from 82% in 2016 to 88% in 2017), reported median days of using cannabis had decreased from 165 days (i.e. almost every day) in 2016 to 96 days (i.e. every other day) in 2017. There were still comparable percentages of those reporting daily use (46% in 2016 and 44% in 2017). Despite these decreases, rates of tobacco and cannabis use continue to be much higher than reported among the general population, with the NT continuing to record the highest percentage of daily tobacco smokers and the highest rate of cannabis consumers of any jurisdiction (Australian Institute of Health and Welfare 2017).

Considering these findings, it is critical that prevention and intervention strategies that target smoking among this sentential population and the general population are developed and appropriately disseminated.

Bingeing

Under half (44%) of the sample reported bingeing on ERD over the past six months, a non-significant decrease since 2016 (54%). Despite this decrease, the NT recorded the highest percentage of recent bingeing behaviour across jurisdictions (national EDRS average: 33%). Of particular concern was the percentage of participants who reported bingeing on alcohol while consuming ecstasy. Individuals may end up consuming large quantities of alcohol because the immediate effects of intoxication are delayed when ecstasy has been consumed (Hernández-López, Roset et al. 2002). Furthermore, there is increased risk of dehydration when both alcohol and ecstasy are consumed.

Continued dissemination of harm reduction messages to reduce bingeing, particularly with a combination of substances, is recommended in settings where this behaviour may occur, such as festivals.

Alcohol use

Consistent with past years, alcohol use continued to be highly prevalent among the NT EDRS sample. Hazardous alcohol consumption is a concern in this population, particularly as the majority of participants scored in the harmful range for alcohol consumption, which may be indicative of alcohol-related disorders and dependence. At a population level, data from the 2016 NDSHS continues to report that the NT has the highest percentage of people consuming four or more standard drinks at least once a month (single occasion risk), and patterns of risky drinking were higher than the national average. These practices place individuals at risk of an alcohol-related disease, illness or injury.

Given this, evidence-based interventions to reduce the harms associated with high- risk alcohol use (including binge drinking) are warranted.

Mental health and service utilisation

In terms of psychological distress levels, almost two-thirds of the sample reported 'distress' to some degree. Distress levels among the EDRS sample were higher than Australian general population rates, and over time there continues to be increasing levels of distress among those who use ecstasy and/or stimulant drugs. Despite this high prevalence, only two-fifths reported a mental health problem, of which two-thirds sought assistance from a mental health professional.

Additional resources should also be allocated to educate and engage this population about their mental health, well-being and avenues to access support.

Driving

Over half of the NT 2017 sample had recently driven while under the influence of alcohol and/or after consuming illicit drugs; this has remained a reoccurring theme in the NT EDRS.

Appropriate interventions to minimise this risky behaviour among people who use ecstasy and/or stimulants in the NT needs to be developed.

1 INTRODUCTION

The Ecstasy and related Drugs Reporting System (EDRS) is an ongoing monitoring system funded in 2017 by the Australian Government under the Substance Misuse Prevention and Service Improvement Grants Fund. It is based on the Illicit Drug Reporting System (IDRS) methodology but targets a different sentinel population of people who use drugs. The IDRS provides a coordinated approach to the monitoring of the markets of heroin, methamphetamine, cannabis and cocaine. It was identified that the IDRS did not capture the use of ecstasy and related drugs (ERD), as these were used infrequently among the target population of the IDRS – people who inject drugs (PWID).

In June 2000, the National Drug Law Enforcement Research Fund (NDLERF), administered by the Australasian Centre for Policing Research (ACPR), funded a two-year, two state trial in New South Wales (NSW) and Queensland (QLD) of the feasibility of monitoring emerging trends in the markets for ecstasy and other related drugs using the extant IDRS methodology. In addition, Drug and Alcohol Services South Australia (DASSA) (formerly known as the Drug and Alcohol Services Council) agreed to provide funding for two years to allow the trial to proceed in this state. The results of this trial are presented elsewhere (Topp, Breen et al. 2004). In 2003, NDLERF provided funding for data collection to be conducted in all jurisdictions across Australia, representing the first year that data was collected nationally, including in the NT.

The term ‘ecstasy and related drugs’ or ‘stimulants’ includes drugs routinely used in the context of entertainment venues and other recreational locations including nightclubs, dance parties, pubs and music festivals. ERD include ecstasy, methamphetamine, cocaine, LSD, ketamine, GHB and MDA. People who regularly use ecstasy and/or stimulants were identified as an appropriate sentinel population to investigate ERD markets, as they are likely to be aware of trends in illicit drug markets.

Historically, the EDRS has involved the collection and analysis of interviews with people who regularly use ecstasy and/or other stimulant drugs; (b) interviews with professionals who have regular contact with people who use ecstasy and/or stimulants regularly (key experts, or KE); and (c) the analysis of secondary indicator data sources, such as existing databases of customs seizures, police drug-related arrests, and drug information telephone services. However, in 2017, KE surveys were not conducted and indicator data has not been presented (excluding Australian Institute of Health and Welfare data).

The NT Trends in Ecstasy and Related Drug Markets 2017 provides a summary of trends from the fifteenth year of monitoring ERD markets in the Northern Territory (NT).

1.1 AIMS

The aims of the 2017 NT EDRS were to:

1. Describe the demographic characteristics of a sample of people who use stimulant drugs (primarily ecstasy) on a current and regular basis that were interviewed in Darwin in 2017;
2. Examine the patterns of ecstasy and related drug (ERD) use of this sample, including lifetime and recent use of over 20 licit and illicit drugs;
3. Document the current price, purity and availability of ERDs in Darwin, including information of source of purchase and where last scored;
4. Examine drug-related harms, including overdose, dependence and bingeing behaviours;
5. Identify emerging trends in the ERD market that may require further investigation; and
6. Where possible, compare findings to the 2016 NT EDRS.

2 METHODS

The 2017, the main source of information used to document trends were face-to-face interviews conducted in Darwin with people who use stimulant drugs. This report also presents data from the 2016 National Drug Strategy Household Survey (Australian Institute of Health and Welfare 2017).

2.1 SURVEY OF THE NT EDRS SAMPLE

Historically, the sentinel population chosen to monitor trends in ERD markets consisted of people who engaged in the regular use of pills sold as 'ecstasy'. Although a range of drugs fall into the ERD category, ecstasy is a drug that can be considered one of the main illicit drugs used in Australia. It is the third most widely used illicit drug after cannabis and illicit painkillers/analgesics, with 2.2% of the population aged 14 years or older reporting past year use of ecstasy in the 2016 National Drug Strategy Household Survey (Australian Institute of Health and Welfare 2017).

The ecstasy (pills sold purporting to contain MDMA) market has existed in Australia for more than two decades. In contrast, other drugs that fall into the class of ERD have either declined in popularity since the appearance of ecstasy in this country (e.g. LSD), have fluctuated widely in availability (e.g. MDA), or are not as widely used as ecstasy (e.g. ketamine and GHB). It has been suggested that it would be difficult to identify a person who regularly uses GHB or ketamine who was not also experienced with ecstasy use, whereas the reverse will often be the case (Topp and Darke 2001). Ecstasy may be the first illicit drug with which many young Australians who choose to use illicit drugs will experiment with, and a minority of them will go on to experiment with the less common related drugs such as ketamine, LSD and GHB.

The entrenchment of ecstasy in Australia's illicit drug markets, relative to other related drugs, underpinned the decision that regular use of ecstasy could be considered the defining characteristic of the target population (people who use ecstasy regularly) (Topp and Darke 2001). A sample of this population was successfully recruited and interviewed in the two-year feasibility trial (Topp, Breen et al. 2004), and was able to provide the data that were sought. However, in recent years it became apparent that the ecstasy market and the regularity of its consumption were changing. Researchers experienced significant difficulty recruiting a NT EDRS sample of those who use ecstasy regularly of meaningful size from 2010–12 (2010 N=28; 2011 N=11; 2012 N=12). Due to this difficulty, from 2012 onwards, the category was broadened to incorporate people who regularly use stimulants and since this time both groups (people who use ecstasy and/or other stimulants regularly) have been recruited to provide information on ERD markets.

2.1.1 Recruitment

A total of 86 participants residing in the Darwin metropolitan region were interviewed for the 2017 NT EDRS. Participants were recruited through a purposive sampling strategy (Kerlinger 1986), which included advertisements on social media such as Facebook (76% of participants recruited) and 'snowball' procedures (23% of participants recruited) (Biernacki and Waldorf 1981). 'Snowballing' is a means of sampling 'hidden' populations which relies on peer referral, and is widely used to access illicit drug consumers both in Australian (Solowij, Hall et al. 1992, Ovendon and Loxley 1996, Boys, Lenton et al. 1997) and international studies (Dalgarno and Shewan 1996, Forsyth 1996, Peters, Davies et al. 1997). On completion of the interview, participants were requested to mention the study to friends who might be willing and able to participate and were handed cards containing the researcher's contact details to distribute to their peers.

2.1.2 Procedure

Participants contacted the researchers by telephone and were screened for eligibility. Eligibility for NT EDRS participation was based on regular stimulant use; that is, they must have used ERD on at least six occasions within Darwin in the six months prior to interview. Participants also had to be at least 17 years old and resided in the greater Darwin area for at least 12 months prior to interview.

Participants were informed that all information provided was strictly confidential and anonymous, and that the study would involve a face-to-face interview that would take approximately 45 minutes. All respondents were volunteers who were reimbursed \$40 for their participation. Informed consent to participate was obtained prior to the interview. All participants were assured that all information they provided would remain confidential and anonymous. Interviews took place in a location negotiated with participants, predominantly in coffee shops, and were conducted by a small group of interviewers trained in the administration of the interview schedule. The nature and purpose of the study was explained to participants before informed consent was obtained.

2.1.3 Measures

Participants were administered a structured interview schedule based on a national study of ecstasy consumers conducted by NDARC in 1997 (Topp, Hando et al. 1998, Topp, Hando et al. 2000), which incorporated items from a number of previous NDARC studies of people who use ecstasy (Solowij, Hall et al. 1992) and powder amphetamine/methamphetamine (Hando and Hall 1993, Darke, Cohen et al. 1994, Hando, Topp et al. 1997). The interview schedule included demographic characteristics; focused primarily on the preceding six months, and assessed patterns of ecstasy use and related drug use, including: frequency and quantity of use and routes of administration (ROA); the price, purity and availability of a range of related drugs; health-related trends and service usage; risky behaviours (including injecting behaviours, sexual activity, and problematic alcohol use); law enforcement-related trends (including self-reported criminal activity and arrests); and trends in special areas of interest for 2017 (online purchasing).

2.1.4 Data analysis

For continuous, normally distributed variables, *t*-tests were employed and means reported. Where continuous variables were skewed, medians¹ were reported and the Mann-Whitney *U*-test, a non-parametric equivalent of the *t*-test (Siegel and Castellan 1988), was employed. Categorical variables were analysed using chi-square analysis. Confidence intervals (CI) were calculated using an Excel spreadsheet available at <http://www.cebm.net/index.aspx?o=1023> (Tandberg). This calculation tool was an implementation of the optimal methods identified by Newcombe (1998). Analyses were conducted using the Statistical Package for the Social Sciences (SPSS) for Windows, version 23.0.

The data collected in 2017 were compared with data collected from previous years where meaningful sample sizes were collected (2009, 2013, 2014, 2015, 2016). As previously detailed, due to the small sample sizes recruited from 2010–12, the data from these years have been omitted to prevent interpretation of trends from these years that may not be valid.

¹ The median value lies in the middle of a series of data points arranged in order of size, i.e. it provides a more representative view of skewed data than the mean value.

3 DEMOGRAPHICS

Summary:

- 86 participants were interviewed in the 2017 NT EDRS (55 male and 31 female).
- Participants were young (mean age of 23 years), most commonly spoke English as their first language (95%), and were Australian born (84%).
- Most participants were heterosexual (88%), single (62%), living in rental accommodation (51%) and a third were employed full-time (35%).
- One participant reported being currently in drug treatment.
- Overall, the 2016 and 2017 participants were similar in demographic composition with the exception to full-time employment, tertiary qualifications and mean weekly income, all of which had significantly decreased in 2017 compared to 2016 ($p<0.05$).

3.1 OVERVIEW OF THE NT EDRS SAMPLE

There were 86 participants sampled in the 2017 NT EDRS. Table 1 presents the demographics of the sample across time. The mean age of the 2017 sample was 23 years (median 21, range=17–47) and two-thirds (64%) were male.

The majority (95%) spoke English as their first language and were born in Australia (84%). Seventeen percent identified as being of Aboriginal and/or Torres Strait Islander (A&TSI) descent. Most participants identified as heterosexual (88%), 11% as bisexual and 1% as lesbian. Most participants reported being currently single (62%) and were either residing in rental accommodation (51%) or their family home (35%).

The median number of years of school education completed was 12 years (range=9–12, mean=11), and 52% had completed high school education (Year 12 or above). Half of the participants completed either a trade or technical qualification (43%) or a university or college degree (6%).

A third (35%) of the sample reported being currently employed full-time, with an additional 26% working part-time or casually at the time of interview. Twenty-four participants (28%) were currently unemployed, three participants were studying full-time and another three participants were both working and studying. Mean weekly income for the NT EDRS sample was \$826 per week (range=\$25–\$4,000), and wage or salary was reported as the main source of income in the last month for the majority of participants (75%). One participant reported being in some form of drug treatment.

Overall, the demographic characteristics between the 2016 and 2017 samples were somewhat similar. In 2017 there was significant decrease in both full-time employment (from 50% to 35%, $p<0.05$) and tertiary qualifications (from 68% to 49%, $p<0.05$). There was also a significant difference in income, whereby the 2017 sample reported a significantly lower mean weekly income than the 2016 sample (\$826 vs \$1,167, $p<0.05$).

Table 1: Demographic characteristics of EDRS participants, NT

	2009 (N=67)	2013 (N=45)	2014 (N=100)	2015 (N=101)	2016 (N=100)	2017 (N=86)
Mean age (years)	31	25	23	24	25	23
Male (%)	61	69	57	59	65	64
English-speaking background (%)	99	87	98	96	99	95
Aboriginal and/or Torres Strait Islander (%)	12	0	5	7	14	17
Heterosexual (%)	60	91	96	92	94	88
Mean number of school years	11	12	11	11	11.5	11
Tertiary qualifications (%)	40	76	56	67	68	49*
Employed full-time (%)	55	59	32	55	50	35*
Full-time students (%)	5	2	0	1	4	4
Unemployed (%)	22	13	30	14	16	28
Mean weekly income (\$) (range)	572 (200–1,333)	1,140 (300–3,000)	898 (50–4,346)	920 (50–2,500)	1,167 (20–8,500)	826* (25-4,000)
In drug treatment (%)	0	0	1	2	1	1

Source: EDRS participant interviews 2009, 2013, 2014, 2015, 2016, 2017

* $p < 0.05$ from 2016 to 2017

When asked about the perceptions of changes in peer drug use, nearly half (47%) of the sample had perceived changes in drug use amongst their social group. Some of the more common themes in participants' comments included the following:

- Increased number of people who use drugs including a younger generation.
- Increase in use and quantity of methamphetamine, synthetic cannabinoid, cannabis, NPS, pharmaceuticals and ketamine.
- Trying new types of drugs and mixing drugs together.

4 CONSUMPTION PATTERN RESULTS

4.1 DRUG USE HISTORY AND CURRENT DRUG USE

Summary:

- Participants had experience with a wide range of drugs, having used a median of 13 different drug types during their lifetime and eight different drug types over the past six months.
- Fourteen percent reported having ever injected a drug and three participants had injected in the past month.
- Participants reporting lifetime and recent use of particular substances remained stable from 2016 to 2017 with the exception of a significant decrease of lifetime use for methamphetamine powder (from 74% to 59%) and recent use of nitrous oxide (from 17% to 5%).
- Similar to 2016, cannabis was the main drug of choice for the largest percentage of the 2017 sample (36%), closely followed by ecstasy (34%).
- Under half (44%) of the group had recently binged on ERD. The median number of binge episodes was two in the past six months.

Participants were asked about their lifetime and recent² use of over 20 different drug types. Experience with a broad range of drugs was very common, with participants reporting use of a median of 13 drugs over their lifetimes and eight drug types over the past six months (Table 2). Fourteen percent of the sample reported having ever injected a drug and three participants had injected in the past month. A more thorough analysis of injecting drug use behaviours among this sample can be found in section 7.1 'Injecting risk behaviour'.

Table 2 presents the percentage of EDRS participants reporting lifetime and recent drug use across time. Two notable differences from 2016 to 2017 were significant decreases in the percentage of participants reporting lifetime use of methamphetamine powder (from 74% to 59%; $p < 0.05$) and recent use of nitrous oxide (from 17% to 5%; $p < 0.05$).

Participants also reported having used other drugs such as synthetic cannabinoids, 2C-B and herbal highs. The EDRS began to systematically investigate these drugs in 2010. This information can be found in section 4.10 'New psychoactive substance (NPS) use'.

In 2017, the drug of choice among the largest percentage of NT participants was cannabis (36%), closely followed by ecstasy (34%). Smaller percentage of the sample nominated cocaine (12%), alcohol (9%), LSD (5%) and 'other' (2%) as their drug of choice. In keeping with these preferences, the majority of participants reported that the drug used most often in the last month was cannabis (47%), alcohol (40%) or ecstasy (8%). However, those participants who reported a discrepancy between their drug of choice and drug used most often attributed this to the factors of availability (27%), price (20%), impact on daily functioning (16%) or use in social situations (13%).

² 'Lifetime' use refers to drugs that have ever been used. 'Recent' use refers to drugs that had been used in the six months prior to the interview.

Table 2: Lifetime and recent drug use of EDRS participants, NT

	2009 (N=67)	2013 (N=45)	2014 (N=100)	2015 (N=101)	2016 (N=100)	2017 (N=86)
Median no. drug types ever used	8	9	9	11	12.5	13
Median no. drug types used last 6 months	5	5	6	8	7	8
Ever injected any drug (%)	31	16	4	16	23	14
<i>Alcohol</i>						
ever used (%)	100	98	99	99	100	100
used last 6 months (%)	90	96	96	97	94	99
<i>Cannabis</i>						
ever used (%)	93	98	97	92	98	97
used last 6 months (%)	60	71	84	82	82	88
<i>Tobacco</i>						
ever used (%)	88	76	75	85	95	92
used last 6 months (%)	63	58	68	79	87	86
<i>Cocaine</i>						
ever used (%)	52	64	64	72	80	77
used last 6 months (%)	23	33	39	52	42	57
<i>LSD</i>						
ever used (%)	47	64	63	64	75	76
used last 6 months (%)	11	40	43	32	32	47
<i>Methamphetamine powder (speed)</i>						
ever used (%)	82	53	58	58	74	59*
used last 6 months (%)	61	33	39	31	27	20
<i>Methamphetamine crystal (ice)</i>						
ever used (%)	28	36	39	48	61	48
used last 6 months (%)	15	20	27	36	32	24
<i>Methamphetamine base</i>						
ever used (%)	52	7	11	19	20	15
used last 6 months (%)	28	2	5	3	5	1
<i>Ketamine</i>						
ever used %	13	40	37	42	37	33
used last 6 months (%)	0	9	15	18	11	11

Source: EDRS participant interviews 2009, 2013, 2014, 2015, 2016, 2017

* $p < 0.05$ from 2016 to 2017

Table 2: Lifetime and recent drug use of EDRS participants, NT (continued)

	2009 (N=67)	2013 (N=45)	2014 (N=100)	2015 (N=101)	2016 (N=100)	2017 (N=86)
<i>MDA</i>						
ever used (%)	19	16	20	21	22	14
used last 6 months (%)	5	4	13	10	7	6
<i>GHB</i>						
ever used (%)	13	13	10	15	24	15
used last 6 months (%)	0	2	2	3	4	7
<i>Mushrooms</i>						
ever used (%)	45	44	45	51	52	47
used last 6 months (%)	3	13	11	12	5	8
<i>Benzodiazepines^a</i>						
ever used (%)	13	31	40	32	35	41
used last 6 months (%)	6	11	17	21	20	21
<i>Pharmaceutical stimulants^a</i>						
ever used (%)	22	18	33	36	40	33
used last 6 months (%)	6	2	13	16	15	14
<i>Nitrous oxide</i>						
ever used (%)	15	27	23	33	46	37
used last 6 months (%)	2	9	10	13	17	5*
<i>Amyl nitrite</i>						
ever used (%)	33	29	21	31	27	19
used last 6 months (%)	22	11	6	8	8	8
<i>Antidepressants^b</i>						
ever used (%)	6	13	20	13	5	7
used last 6 months (%)	3	2	7	3	2	1
<i>Heroin</i>						
ever used (%)	10	11	4	8	15	6
used last 6 months (%)	2	0	1	2	0	0
<i>Methadone</i>						
ever used (%)	6	0	1	3	3	0
used last 6 months (%)	3	–	0	0	1	0

Source: EDRS participant interviews 2009, 2013, 2014, 2015, 2016, 2017

* $p < 0.05$ from 2016 to 2017

^a Includes licitly and illicitly obtained

^b 2016 and 2017 data captures illicit use only. Prior years captured both licit and illicit use

Table 2: Lifetime and recent drug use of EDRS participants, NT (continued)

	2009 (N=67)	2013 (N=45)	2014 (N=100)	2015 (N=101)	2016 (N=100)	2017 (N=86)
<i>Buprenorphine</i>						
ever used (%)	3	0	2	0	3	1
used last 6 months (%)	2	-	0	0	1	1
<i>Other opiates^a</i>						
ever used (%)	9	16	14	15	24	33
used last 6 months (%)	5	2	3	5	10	15
<i>OTC codeine^c</i>						
ever used (%)	33	16	13	17	24	27
used last 6 months (%)	25	4	5	16	11	13
<i>OTC stimulants^d</i>						
ever used (%)	49	9	11	7	13	13
used last 6 months (%)	19	2	5	4	6	4
<i>Antipsychotics^b</i>						
ever used (%)	Data not collected until 2010	4	2	4	9	6
used last 6 months (%)		2	1	2	3	2
<i>Steroids^d</i>						
ever used (%)	Data not collected until 2010	7	4	8	12	4
used last 6 months (%)		0	4	2	6	1
<i>Dextromethorphan (DXM)</i>						
ever used (%)	Data not collected until 2010	4	4	9	10	9
used last 6 months (%)		0	3	6	7	7
<i>E-cigarettes</i>						
ever used (%)	Data not collected until 2014		47	46	59	58
used last 6 months (%)			27	27	24	26

Source: EDRS participant interviews 2009, 2013, 2014, 2015, 2016, 2017

OTC (over the counter).

^a Includes licitly and illicitly obtained.

^b 2016 and 2017 data captures illicit use only. Prior years captured both licit and illicit use.

^c For non-pain use only.

^d For non-medicinal use only.

Participants were asked how frequently they had used ERD in the past month. Nineteen percent had used ERD monthly, nearly half (44%) had used it fortnightly, a quarter (23%) had used ERD weekly and 10% had used ERD more than once a week. Four percent of the sample reported that they had not used ERD in the past month.

Just under half (44%) of the sample reported bingeing on a stimulant drug over the past six months. Bingeing is defined as using the drug on a continuous basis for 48 hours or more without sleep (Ovendon and Loxley 1996). Participants who reported bingeing had done so on a median of two occasions over the preceding six months (range=1–48). The median length of the longest binge was 62 hours (range=48–240). Among those who had recently binged, the majority had used more than five standard drinks of alcohol (76%), ecstasy (74%), cannabis (71%) and tobacco (68%) during a binge session. Other drugs used during binge sessions included crystal methamphetamine (32%), energy drinks (32%), cocaine (26%), speed (13%), LSD (5%), benzodiazepines (5%) and ketamine (3%).

4.2 ECSTASY USE

Summary:

- Ecstasy was used on a median of 12 days over the past six months (i.e. approximately fortnightly).
- Ecstasy pills continued to be the most commonly used form of ecstasy in the six months preceding interview (86%), followed by MDMA crystal (71%), capsules (57%) and powder (20%).
- In 2017, past six months use of MDMA crystal significantly increased to 71% compared to 43% in 2016 ($p<0.01$).
- During a 'typical' occasion of use, participants reported using two ecstasy pills (range=1-10) or one ecstasy capsule (range=1-10) or 0.5 gram of MDMA crystal (range=0.1-1) or 0.5 gram of ecstasy powder (range=.01-1.5).
- Swallowing was the main route of administration for pills, capsules and MDMA crystal whilst snorting was the primary route of administration for powder.
- Ecstasy was most commonly last used at a nightclub.
- Ecstasy use within the last 12 months remained more common in NT across the general population than nationally (2.9% vs. 2.2%, respectively) (AIHW, 2017).

'Ecstasy' is a street term for a number of substances related to MDMA or 3,4-methylenedioxymethamphetamine. MDMA is classed as a hallucinogenic amphetamine. The results presented in this section relate to the participants' use and knowledge of drugs sold as 'ecstasy'.

4.2.1 Ecstasy use among EDRS participants

Table 3 presents an outline of patterns of ecstasy use among the EDRS sample. Participants were asked about their use of different forms of ecstasy (pills, powder, capsules and MDMA crystals). Almost the entire sample (98%) reported lifetime use of ecstasy pills and 86% reported use in the preceding six months. Two-fifths (40%) reported having ever used ecstasy powder and one-fifth had done so recently (20%). Three-quarters (77%) reported having ever used ecstasy capsules ('caps') and 57% had used them over the preceding six months. The majority (84%) reported having used MDMA crystals in their lifetime, and 71% had used these recently which was a significant increase from 2016 (43%; $p<0.01$). Pills were first used at a median age of 17 years (range=13–45), powder at 18 years (range=15–30), caps at 18 years (range=13–47), and MDMA crystals at 18 years (range=14–47).

Of the sample, 99% reported they had recently used any form of ecstasy. Ecstasy was used on a median of 12 days (range=1–122) over the preceding six months. Twenty-one percent of those who responded reported using ecstasy weekly or more.

Table 3: Past six month ecstasy use, and age of initiation, among EDRS participants, NT

%	2016 (n=100)	2017 (n=86)
Recent ecstasy pill use (tablets)	90	86
Median age first used ecstasy pills (range)	17 (13-37)	17 (13-45)
Recent ecstasy/MDMA crystal use	43	71**
Median age first used ecstasy/MDMA crystals (range)	18 (15-38)	18 (14-47)
Recent ecstasy capsules use (caps)	44	57
Median age first used ecstasy caps (range)	18 (6-44)	18 (13-47)
Recent ecstasy/MDMA powder use	22	20
Median age first used ecstasy/MDMA powder (range)	18 (15-25)	18 (15-30)
Recent any form of ecstasy use	97%	99%

Source: EDRS participant interviews 2016, 2017

** $p < 0.01$

The majority (66%) of respondents commonly used more than one pill during a session (Table 4). EDRS participants had used a median of two pills during a ‘typical’ occasion of use (range=1–10) over the preceding six months. The median number of pills consumed in the ‘heaviest’ session over the preceding six months was three (range=1–16). Swallowing (100%) and snorting (38%) were the primary methods of administration reported for recent ecstasy pill use, with small minorities reporting shelving/shafting (3%) and smoking (1%). There were no significant differences between 2017 and 2016.

Under half (44%) of those who reported recent use of ecstasy capsules reported to use more than one capsule in a session. Whilst the median number of capsules used during a ‘typical’ occasion was one (range=1-10) the median number of capsules during a ‘heavy’ session over the preceding six months was two (range=1-20). Swallowing (100%) was the primary method of administration for ecstasy capsules, however 19% of recent consumers also reported snorting.

Significantly more participants reported to have used MDMA crystal in the past six months in 2017 compared to 2016 (71% vs. 43%; $p < 0.01$). A ‘typical’ session of consumption over the preceding six months was reported to consist of a median of 0.5 gram of MDMA crystal (range=0.1-1), similar to a ‘heavy’ session (0.5 gram, range=0.2-1.5). Whilst majority reported swallowing (85%) as the primary route of administration, 63% also reported to have snorted it and a smaller percentage (8%) reported smoking it.

Eleven participants were able to comment on a ‘typical’ session of consumption of ecstasy powder in the past six months which was reported as 0.5 gram (range=0.1-1.5) similar to a ‘heavy’ session (0.5 gram, range=0.2-2.5). Unlike the other forms of ecstasy, the majority reported snorting (88%) as the primary method of administration followed by swallowing (29%).

Table 4: Patterns of ecstasy use among EDRS participants, NT

	2009 (N=67)	2013 (N=43)	2014 (N=100)	2015 (N=101)	2016 (N=100)	2017 (N=86)
Ecstasy 'favourite' drug (%)	37	7	33	19	22	34
Median days used 'any' ecstasy last 6 months^	12	8.5	12	15	13	12
Use 'any' ecstasy weekly or more (%)^	22	17	33	26	20	21
Median ecstasy pills in 'typical' session^	2	2	2	2	2	2
Typically use >1 pill (%)^	74	63	64	76	74	66
Median ecstasy caps in 'typical' session^	-	-	-	-	1	1
Typically use >1 cap (%)^	-	-	-	-	64	44
Median gram of MDMA crystal in 'typical' session^	-	-	-	-	0.5	0.5
Median gram of ecstasy powder in 'typical' session^	-	-	-	-	0.5	0.5

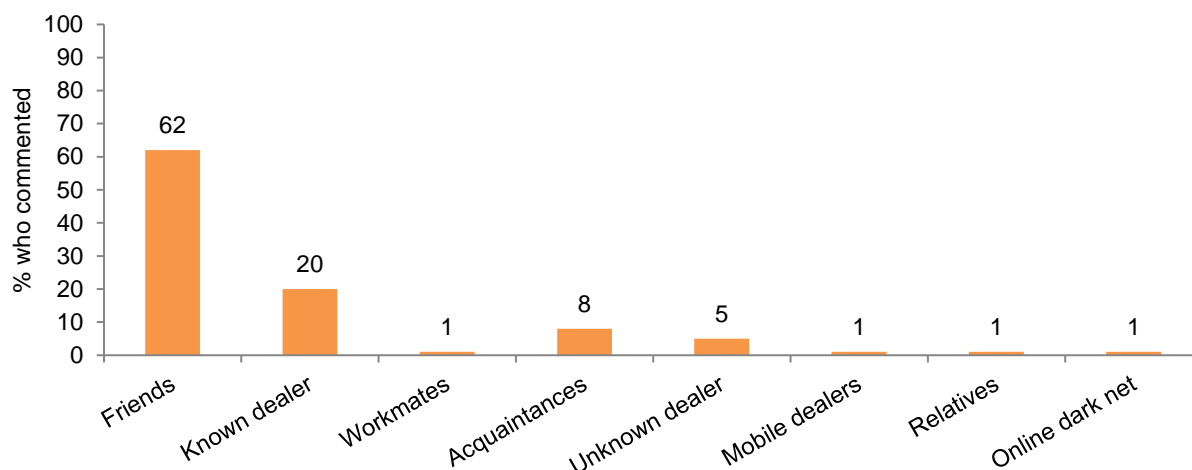
Source: EDRS participant interviews 2009, 2013, 2014, 2015, 2016, 2017

^ out of those who had used ecstasy recently

Over half of the group reported that most (45%) or all (12%) of their friends had used ecstasy over the last six months. One quarter (28%) reported that 'about half' and 15% reported 'a few' of their friends had used ecstasy recently. No participants reported that they were the only person in their social network who had recently used ecstasy.

4.2.2 Last source, purchase location and use location of ecstasy

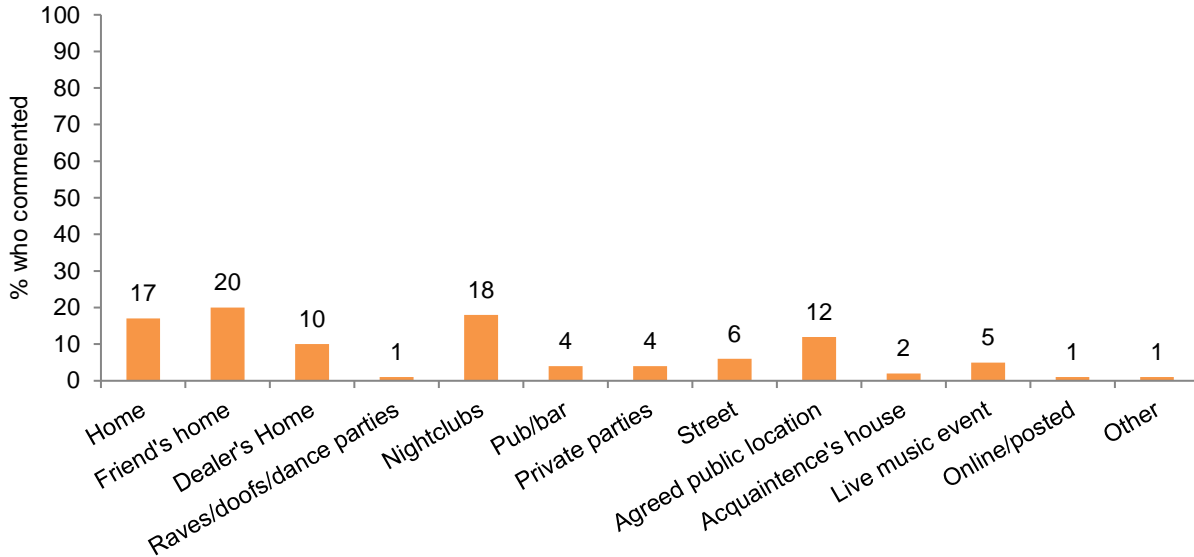
Among those who commented for pills, powder, capsules and MDMA crystal (n=84), the majority last purchased these forms of ecstasy from friends (62%), followed by a known dealer (20%) (Figure 1).

Figure 1: Last source ecstasy was purchased from among EDRS participants, NT

Source: EDRS participant interviews 2017

Participants reported last purchasing ecstasy pills, powder and capsules, and MDMA crystal at both private and public settings (Figure 2). The most common locations reported were a friend's home (20%), nightclubs (18%), delivered at home (17%) or at an agreed public location (12%).

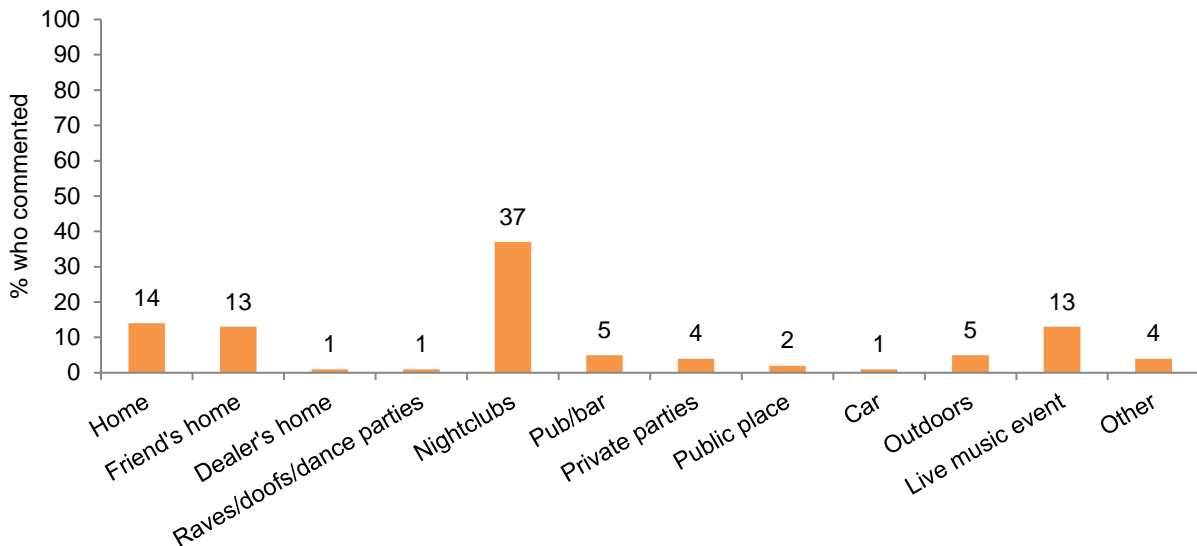
Figure 2: Last location ecstasy was purchased from among EDRS participants, NT



Source: EDRS participant interviews 2017
 'Other' response include a hostel

Participants were asked where they spent the most time while intoxicated the last time they used different forms of ecstasy. It was reported that ecstasy (any form) was most commonly last used at a nightclub (37%) (Figure 3).

Figure 3: Location of last ecstasy use among EDRS participants, NT

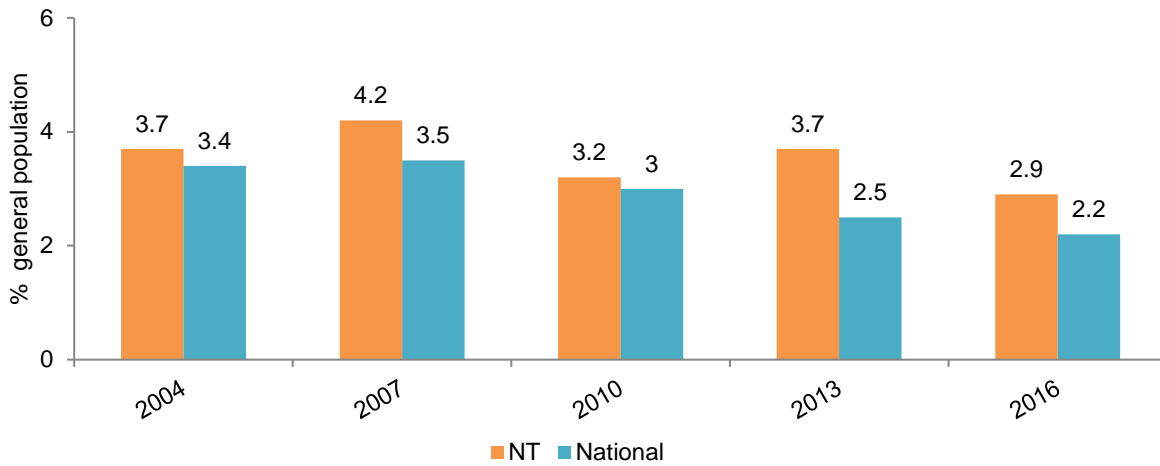


Source: EDRS participant interviews 2017
 'Other' response include the beach and hostel

4.2.3 Use of ecstasy in the general Australian population

Figure 4 presents data collected for the National Drug Strategy Household Survey (NDSHS) from 2004 to 2016. Since 2007, the reported prevalence of ecstasy use in the past 12 months among the general Australian population (aged 14 years and over) has declined. Despite this, the trend of recent ecstasy use in the NT has been more sporadic. Furthermore, ecstasy use in the last 12 months was most common in the NT compared to other states (Australian Institute of Health and Welfare 2017).

Figure 4: Percentage of sample reporting past 12 month ecstasy use in the general population, NT and national



Source: Australian Institute of Health and Welfare (2005, 2008, 2011, 2014, 2017)

4.3 METHAMPHETAMINE USE

Summary:

Speed

- A significantly reduced percentage of the NT EDRS sample in (59%) reported lifetime use of speed in 2017 compared to 2016 (74%).
- One-fifth (20%) had used speed during the preceding six months.
- Speed was used on a median of two days over the preceding six months and was primarily snorted (50%).

Base

- A minority of the sample had used base in their lifetime (15%) and few reported recent use (1%).
- The median age at which base was first used was 17 years (range=15–23).

Crystal methamphetamine

- Nearly half (48%) had ever used crystal methamphetamine and a quarter (24%) had done so recently.
- Crystal methamphetamine was used on a median of five days over the preceding six months (compared to 12.5 days in 2016) and was most commonly smoked.
- The quantity of use appeared to remain relatively stable in 2017.
- Crystal methamphetamine was commonly purchased from known dealers, with the majority of purchases taking place in private settings.

General methamphetamine consumption observations

- The use of methamphetamine among the NT general population has decreased from 2.8% in 2013 to 1.4% in 2016.

Chemically, amphetamine and methamphetamine differ in molecular structure but are closely related. They exert their effects indirectly by stimulating the release of peripheral nervous system (PNS) and central nervous system (CNS) monoamines (principally dopamine, noradrenaline, adrenaline and serotonin), and both have psychomotor, cardiovascular, anorexogenic and hyperthermic properties (Seiden, Sobol et al. 1993). Compared to amphetamine, methamphetamine has proportionally greater CNS than PNS stimulatory effects (Chesher 1993), and is a more potent form with stronger subjective effects.

In Australia today, the powder traditionally known as 'speed' is almost exclusively methamphetamine. The more potent forms of this family of drugs, known by terms such as ice, shabu, crystal meth, base and paste, are also methamphetamine. The distinction between methamphetamine powder ('speed'), methamphetamine base ('base') and crystalline methamphetamine ('crystal') has been made in an attempt to collect more comprehensive information on the use, price, purity and availability of each of these different forms of methamphetamine.

‘Speed’ is typically manufactured in Australia and ranges in colour from white to yellow, orange, brown or pink, due to differences in the chemicals used to produce it.

‘Base’ (also called paste, wax, point or pure) is thought to be an oily or gluggy, damp, sticky, powder that often has a brownish tinge. Base is also thought to be manufactured in Australia (McKetin, McLaren et al. 2005).

The crystal form (also called ice, shabu, or crystal meth) are large crystals that range from translucent to white but may also have a green, blue or pink tinge due to either impurities or the addition of food dye. Pure crystal methamphetamine has an estimated purity of 80% (McKetin, McLaren et al. 2005).

4.3.1 Methamphetamine use among EDRS participants

Methamphetamine powder (speed)

A significantly reduced percentage of the EDRS sample in 2017 (59%) reported lifetime use of speed than in 2016 (74%), and one fifth (20%) had used it during the preceding six months. Speed was first used at a median age of 18 years (range=14–24). The median days of use over the preceding six months was reported as two days (range=1–14). The majority (88%) of those who had recently used speed had done so on a less than monthly basis (Table 5).

Most recent consumers quantified their use in terms of ‘grams’ (n=14). The median amount used in a ‘typical’ or ‘average’ session in the preceding six months was 0.2 gram (range=0.1–0.5). The median amount used in the ‘heaviest’ use session was also 0.2 gram (range=0.1–0.5). The most common route of administration (ROA) for speed in the preceding six months was snorting (50%). Other ROA included swallowing (44%), smoking (31%) and injecting (6%).

Table 5: Patterns of speed use among EDRS participants, NT

	2009 (N=67)	2013 (N=45)	2014 (N=100)	2015 (N=101)	2016 (N=100)	2017 (N=86)
Ever used (%)	82	53	58	58	74	59*
Used last 6 mths (%)	61	33	39	31	27	20
<i>Of those who had used recently:</i>						
Median days used last 6 months (range)	(n=41) 3 (1–180)	(n=14) 4.5 (1–30)	(n=39) 3 (1–48)	(n=31) 2 (1–40)	(n=27) 3 (1–48)	(n=16) 2 (1–14)
<i>Median quantities used (grams):</i>						
Typical (range) [^]	1 (.3–3.5)	1 (.1–2)	1 (.2–2.5)	.5 (.1–2)	.75 (.2–3)	.2 (.1–.5)
Heavy (range) [^]	1 (.5–20)	1 (.1–5)	1 (.4–4)	.5 (.1–12)	1 (0.2–3)	.2 (.1–.5)

Source: EDRS participant interviews 2009, 2013, 2014, 2015, 2016, 2017

* $p < 0.05$ from 2016 to 2017

[^] In 2017, those who answered median quantities used in points were converted to grams

Methamphetamine base

Fifteen percent of the sample had ever used base and the median age at which base was first used was 17 years (range=15–23). One participant in the NT EDRS sample had reported base use over the preceding six months. Due to small numbers reporting (n<10), no findings are presented on recent base use and consumption patterns (Table 6).

Table 6: Patterns of base use among EDRS participants, NT

	2009 (N=67)	2013 (N=45)	2014 (N=100)	2015 (N=101)	2016 (N=100)	2017 (N=85)
Ever used (%)	52	7	11	19	20	15
Used last 6 months (%)	28	2	5	3	5	1
<i>Of those who used recently:</i>	(n=19)	(n=1)	(n=5)	(n=3)	(n=5)	(n=1)
Median days used last 6 months (range)	2 (1–180)	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A
<i>Median quantities used (points):</i>						
Typical (range)	1 (1–4)	N/A	N/A	N/A	N/A	N/A
Heavy (range)	1 (1–4)	N/A	N/A	N/A	N/A	N/A

Source: EDRS participant interviews 2009, 2013, 2014, 2015, 2016, 2017

N/A: Due to small numbers (n<10) reporting, these figures were not reported

Crystal methamphetamine

Nearly half (48%) of the sample had ever used crystal methamphetamine, and one quarter (24%) had used it over the six months prior to the interview. The median age of first use of crystal methamphetamine was 21 years (range=14–37). Crystal methamphetamine was used on a median of five days (range=1–180) over the preceding six months. Half (50%) of those who had recently used crystal methamphetamine had done so on a less than monthly basis, 25% had used between monthly and fortnightly and the remaining one-third (25%) had used crystal methamphetamine more than once per week.

The majority of respondents quantified their use in terms of ‘points’ (generally believed to be 0.1 grams). These participants reported using a median of 2.5 points (range=1–10) during ‘typical’ sessions of use and also a median of 2.5 points (range=1–11) on the heaviest session of crystal methamphetamine use over the preceding six months. All recent consumers reported smoking as the most common ROA for crystal methamphetamine (100%), however a smaller percentage also reported recently swallowing (6%) and/or injecting (6%) crystal methamphetamine.

The report of crystal methamphetamine consumption has remained stable from 2016 (Table 7), however there has been a notable non-significant decrease in the days of use from 2016 to 2017 (12.5 days versus 5 days).

Table 7: Patterns of crystal methamphetamine use among EDRS participants, NT

	2009 (N=67)	2013 (N=45)	2014 (N=100)	2015 (N=101)	2016 (N=100)	2017 (N=85)
Ever used (%)	28	36	39	48	61	48
Used last 6 months (%)	15	20	27	36	32	24
<i>Of those used recently:</i>	(n=10)	(n=9)	(n=27)	(n=36)	(n=32)	(n=20)
Median days used last 6 months (range)	5 (1–180)	N/A	5 (1–150)	6 (1–120)	12.5 (1–170)	5 (1–180)
<i>Median quantities used (points):</i>				1.5 (.3–10)	1.75 (.5–8)	2.5 (1–10)
Typical (range)	3 (1–3)	2 (1–4)	1 (.5–10)	2.5 (.3–10)	2 (1–10)	2.5 (1–11)
Heavy (range)	3 (3)	4 (1–5)	3 (.5–10)			

Source: EDRS participant interviews 2009, 2013, 2014, 2015, 2016, 2017

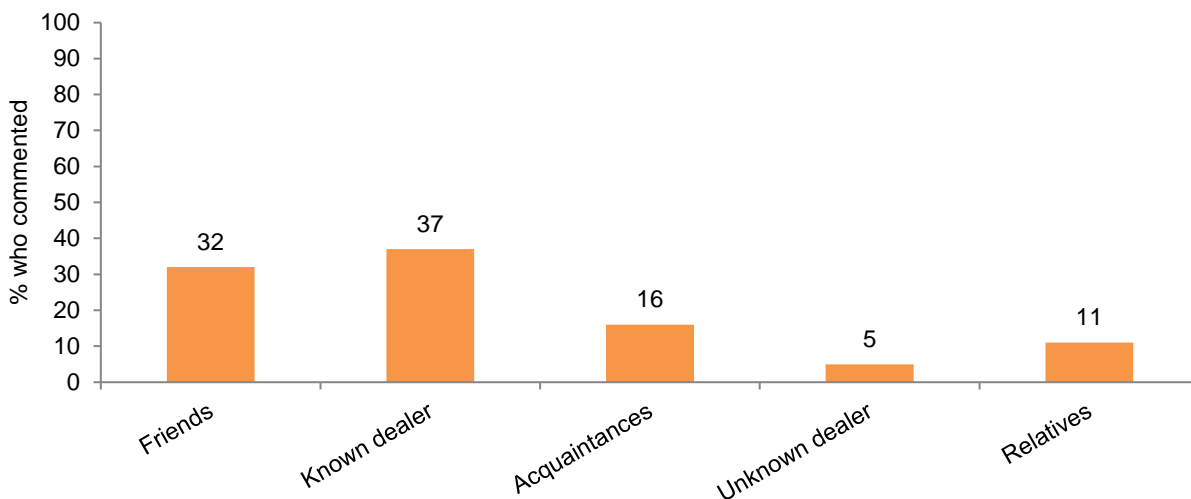
N/A: Due to small numbers (n<10) reporting, these figures were not reported

4.3.2 Last source, purchase location and use location of methamphetamine

Figure 5 shows the sources that participants obtained crystal methamphetamine on the last occasion. Crystal methamphetamine was predominately obtained from a known dealer (37%) followed by friends (32%), acquaintances (16%), relatives (11%) and unknown dealer (5%).

Due to small numbers reporting (n<10), base and speed purchasing patterns were not published.

Figure 5: Last source crystal methamphetamine was purchased by EDRS participants, NT*

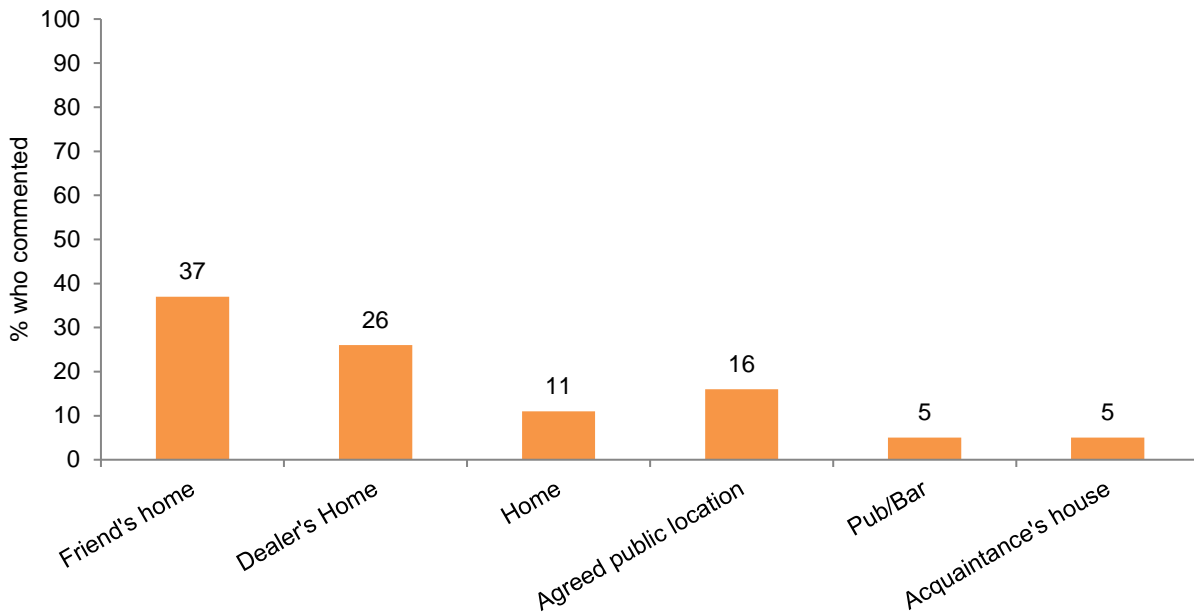


Source: EDRS participant interviews 2017

*Crystal methamphetamine n=19. Numbers for base (n=0) and speed (n=8) were too small to report

The majority of those who had recently purchased crystal methamphetamine obtained it at a friend’s home (37%), a dealer’s home (26%), agreed public location (16%), or at home (11%) (Figure 6).

Figure 6: Last location crystal methamphetamine was purchased by EDRS participants, NT*

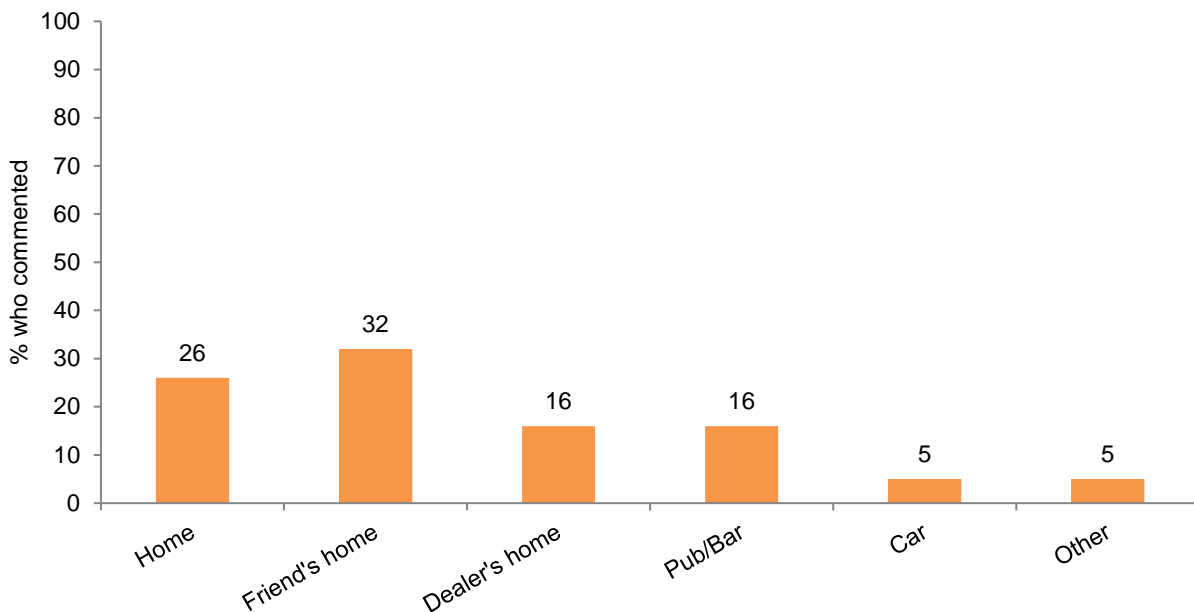


Source: EDRS participant interviews 2017

* Crystal methamphetamine n=19. Numbers for base (n=0) and speed (n=8) were too small to report

Participants who had recently used crystal methamphetamine reported that they had last used it across a number of locations, including at their friend's home (32%), at home (26%), at a dealer's home (16%) or at a pub/bar (16%) (Figure 7).

Figure 7: Last location crystal methamphetamine used among EDRS participants, NT*



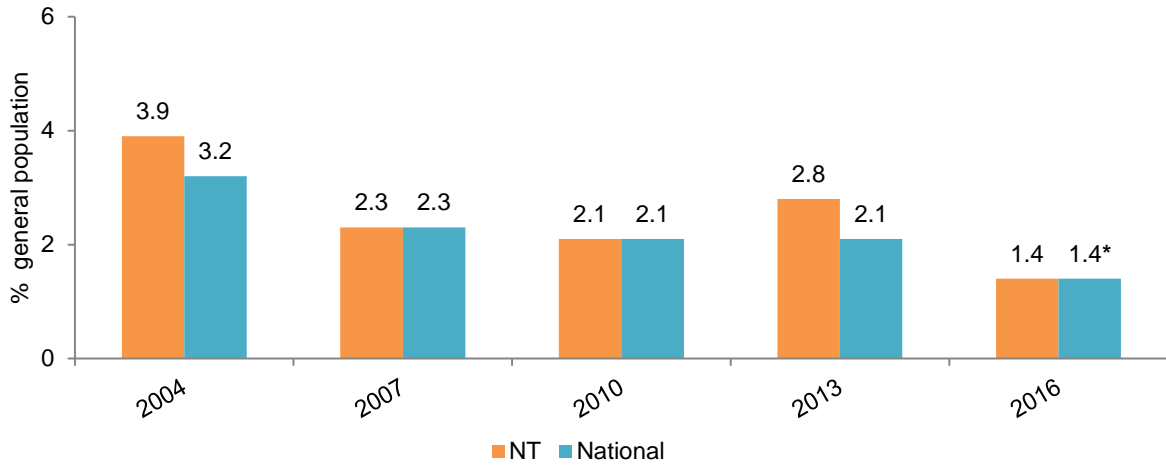
Source: EDRS participant interviews 2017

* Crystal methamphetamine n=19. Due to base n=5 and speed n=0, numbers were too small to report
 'Other' response includes the beach

4.3.3 Methamphetamine use in the general Australian population

Figure 8 shows the percentage of the general population in the NT and nationally (aged 14 years and over) who reported having used any form of methamphetamine in the last 12 months. The graph shows that the percentage that had used methamphetamine in the past year nationally remained stable from 2007 to 2010. There was a significant decrease in the percentage of national residents reporting recent methamphetamine use in 2016 compared to 2013. NT data shows to be sporadic across years.

Figure 8: Percentage of sample reporting past 12 month methamphetamine use in the general population, NT and national



Source: Australian Institute of Health and Welfare (2005, 2008, 2011, 2014, 2017)

* Significant change between 2013 and 2016 (AIHW, 2016)

4.4 COCAINE USE

Summary:

- The majority of the sample (77%) had tried cocaine at least once, and over half (57%) had used it recently.
- Cocaine was used on a median of two days (i.e. every third month) over the preceding six months.
- The frequency and the quantities of cocaine used remained stable from 2016.
- Cocaine was most commonly purchased from friends in private settings.
- There was a non-significant increase of past 12 months cocaine use in the Australian population between 2013 and 2016 (from 2.1% to 2.5%, respectively), however it has remained relatively stable in the NT (2.4% in 2013 vs. 2.5% in 2016; AIHW, 2017).

Cocaine is a stimulant, like methamphetamine. Cocaine is a colourless or white crystalline alkaloid. Cocaine hydrochloride, a salt derived from the cocoa plant, is the most common form of cocaine available in Australia. 'Crack' cocaine is a form of freebase cocaine (hydrochloride removed), which is particularly pure. 'Crack' is most prevalent in North America and infrequently encountered in Australia (Australian Crime Commission 2008).

Street cocaine is usually 'cut' or diluted with other substances, some of which mimic the taste or appearance of cocaine. There is not a great deal of information on the adulterants found in street cocaine, but lidocaine, glucose, lactose, baking soda and talcum powder have been found.

4.4.1 Cocaine use among EDRS participants

The majority (77%) of the NT EDRS sample in 2017 had ever used cocaine, and over half (57%) had used it during the six months prior to the interview. The median age at which cocaine was first used was 19 years (range=14–45).

Participants who had used cocaine over the preceding six months had done so on a median of two days (range=1–40). The majority (75%) had used cocaine on a less than monthly basis, 19% had used between monthly and fortnightly, no one reported using cocaine fortnightly to weekly, and 6% reported more than weekly use.

The majority (75%) of recent cocaine consumers quantified their use in terms of grams. The median amount used during a 'typical' occasion of use was 0.5 gram (range=0.1–1) and the median amount used on the heaviest occasion was also 0.5 gram (range=0.1–2). The majority (96%) of recent consumers of cocaine reported to have snorted it over the preceding six months, with a smaller percentage reporting that they had swallowed (19%) cocaine.

Table 8 presents data across time on the prevalence, frequency and quantity of cocaine use among EDRS participants.

Table 8: Patterns of cocaine use among EDRS participants, NT

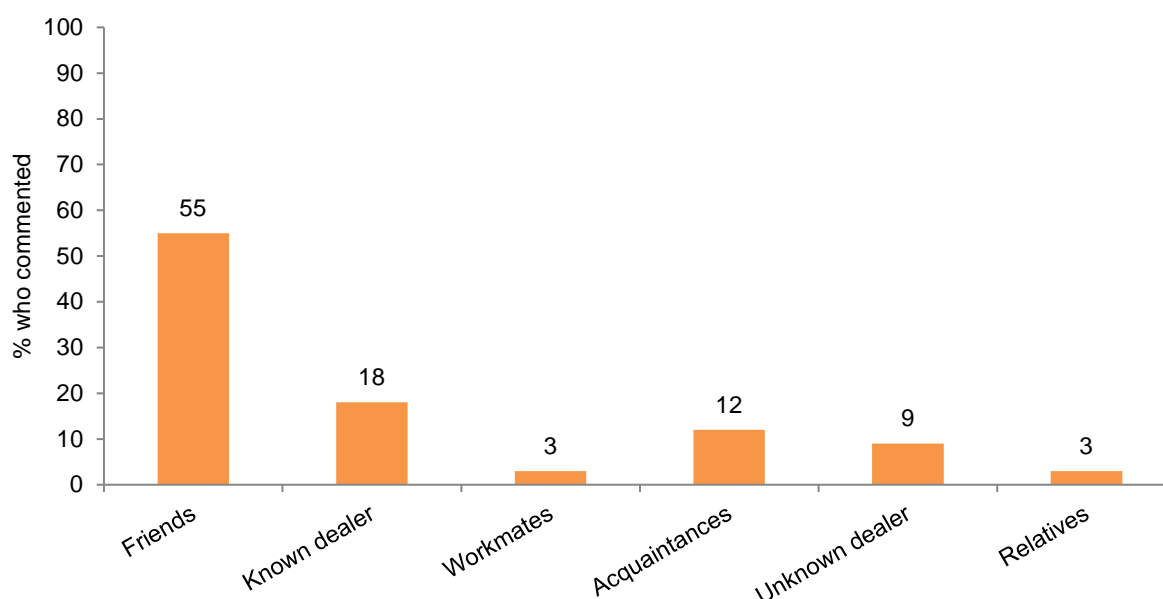
	2009 (N=67)	2013 (N=45)	2014 (N=100)	2015 (N=101)	2016 (N=100)	2017 (N=86)
Ever used %	52	64	64	72	80	77
Used last 6 months %	23	33	39	52	42	57
<i>Of those who recently used:</i>						
Median days used last 6 months (range)	(n=15) 2 (1-12)	(n=15) 4 (1-30)	(n=39) 2 (1-24)	(n=52) 2 (1-50)	(n=42) 3 (1-30)	(n=48) 2 (1-40)
<i>Median quantities used (grams):</i>						
Typical (range)	.5 (.3-1)	1 (.3-2)	1 (.5-2.5)	.5 (.1-4)	.5 (.2-2)	.5 (.1-1)
Heavy (range)	.5 (.3-2)	1.5 (.3-8)	1 (.5-8)	10)	.5 (.2-5)	.5 (.1-2)

Source: EDRS participant interviews 2009, 2013, 2014, 2015, 2016, 2017

4.4.2 Last source, purchase location and use location of cocaine

Among those who commented (n=33), more than half last purchased cocaine from a friend (55%), while the remainder had last purchased from a known dealer (18%), acquaintances (12%) and unknown dealer (9%) (Figure 9).

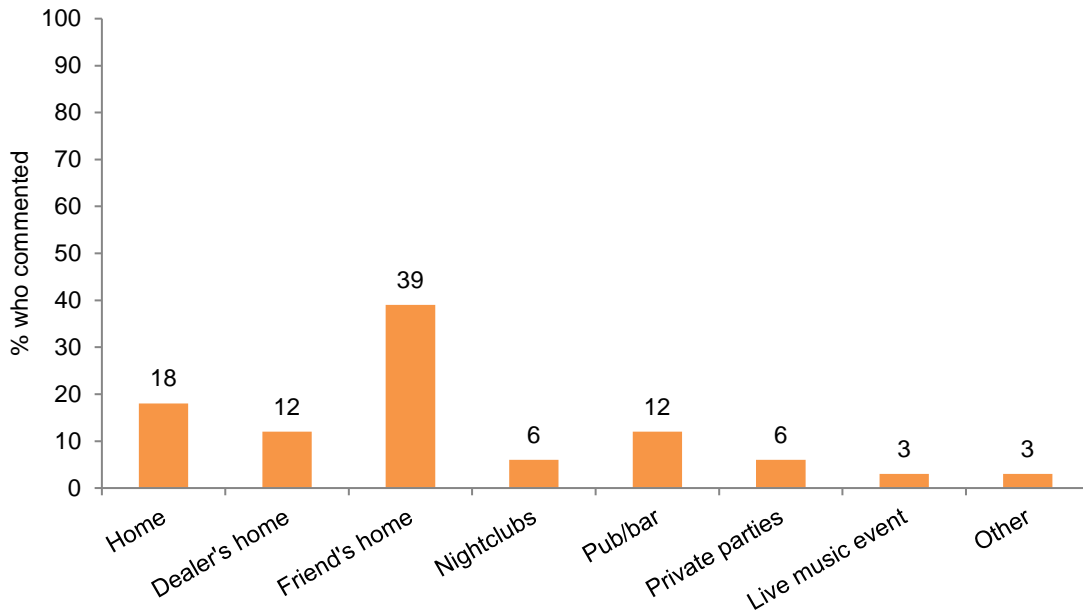
Figure 9: Last source cocaine was purchased from by EDRS participants, NT



Source: EDRS participant interviews 2017

Participants reported last purchasing cocaine mostly in private settings. The most common locations reported included a friend's home (39%), delivered to their home (18%) or a dealer's home (12%) (Figure 10).

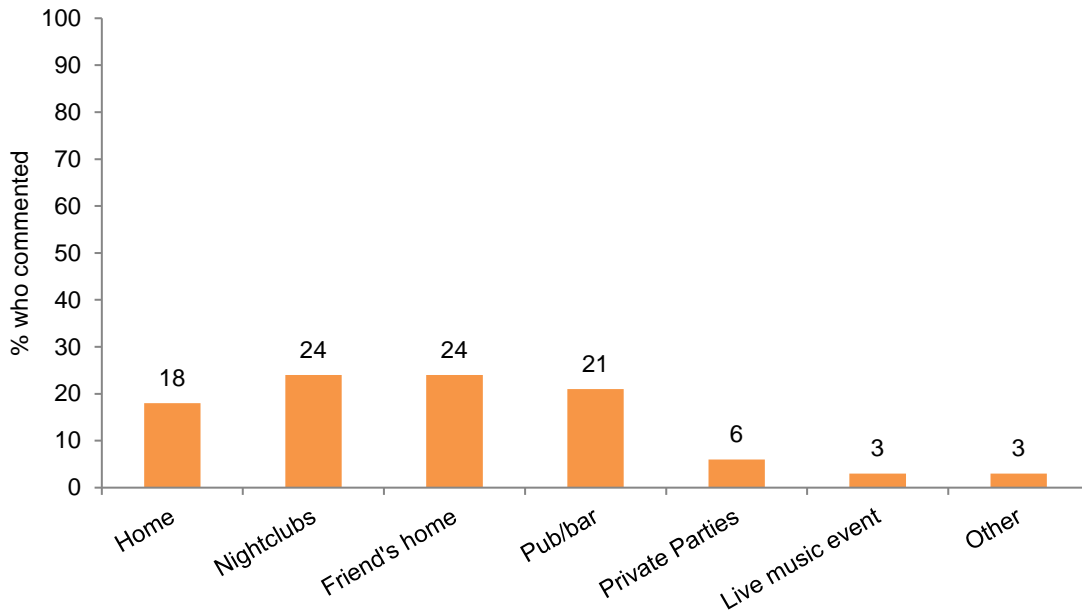
Figure 10: Last location cocaine was purchased by EDRS participants, NT



Source: EDRS participant interviews 2017
 'Other' response includes a restaurant

Of those who reported on the last venue where they spent the most time intoxicated, there were a mixture of public and private settings identified. Most commonly reported were a nightclub (24%) and a friend's home (24%) (Figure 11).

Figure 11: Last location of cocaine use among EDRS participants, NT

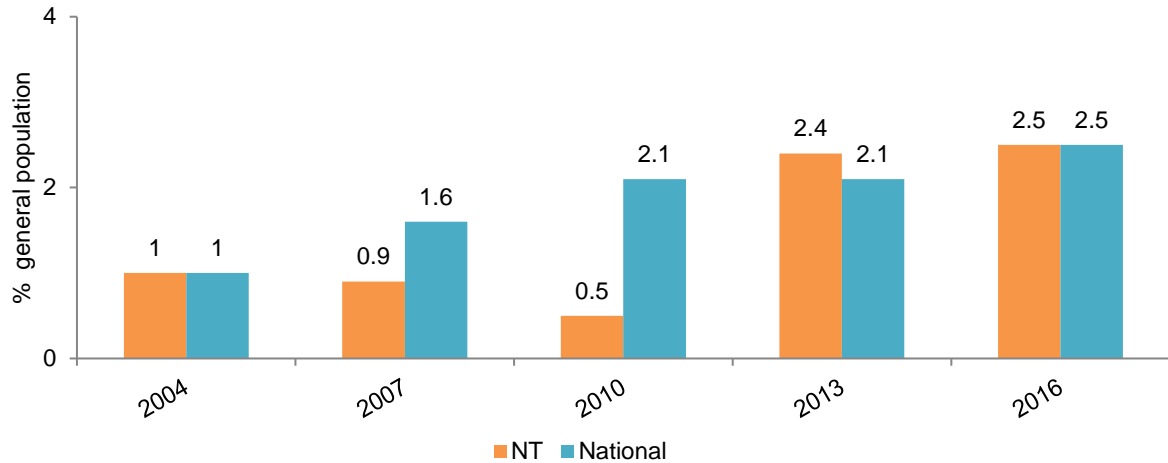


Source: EDRS participant interviews 2017
 'Other' response includes camping

4.4.3 Cocaine use in the general Australian population

Reported past 12 months use of cocaine across the Australian population remained stable from 2010 to 2013 (Figure 12), with a slight increase in 2016. Since the notable increase in 2013, prevalence in the NT remained stable in 2016.

Figure 12: Percentage of sample reporting past 12 month cocaine use in the general population, NT and national



Source: Australian Institute of Health and Welfare (2005, 2008, 2011, 2014, 2017)

4.5 LSD USE

Summary:

- The majority (76%) of the sample had tried LSD at least once and nearly half (47%) had used it recently.
- LSD was used on a median of two days over the preceding six months (every third month).
- LSD was most often purchased and used within private settings.

Lysergic acid diethylamide is commonly known as LSD, ‘trips’ or ‘acid’. It is a powerful hallucinogen which can produce significant changes in perception, mood and thought. LSD is manufactured in illicit laboratories and the majority is believed to be imported. LSD is usually adhered to perforated sheets. Small paper squares (‘tabs’) are detached from these sheets and usually decorated with designs which can often be culturally specific to the user groups. LSD is potent, and tabs are often cut into halves or quarters and shared with others.

4.5.1 LSD use among EDRS participants

The majority (76%) of the sample had ever used LSD and nearly half (47%) had used it recently. Respondents had first used LSD at a median age of 18 years (range=13–45). LSD was used on a median of two days (range=1–48) over the preceding six months (Table 8). Of those who had used LSD, the majority (74%) had done so on a less than monthly basis, 15% had used it between monthly and fortnightly, 3% had used LSD more than fortnightly and 8% had used LSD weekly or more than weekly.

Nearly all respondents quantified their use in terms of tabs. They reported having used a median of one tab during an average session of use (range=0.5–3) and a median of 1.5 tabs during the heaviest session of use (range=0.5–8) in the preceding six months (Table 8). All recent consumers of LSD had swallowed it in the last six months.

Table 9 presents data across time on patterns of LSD use among EDRS participants. The percentages reporting lifetime and recent use of LSD have remained stable since 2013.

Table 9: Patterns of LSD use among EDRS participants, NT

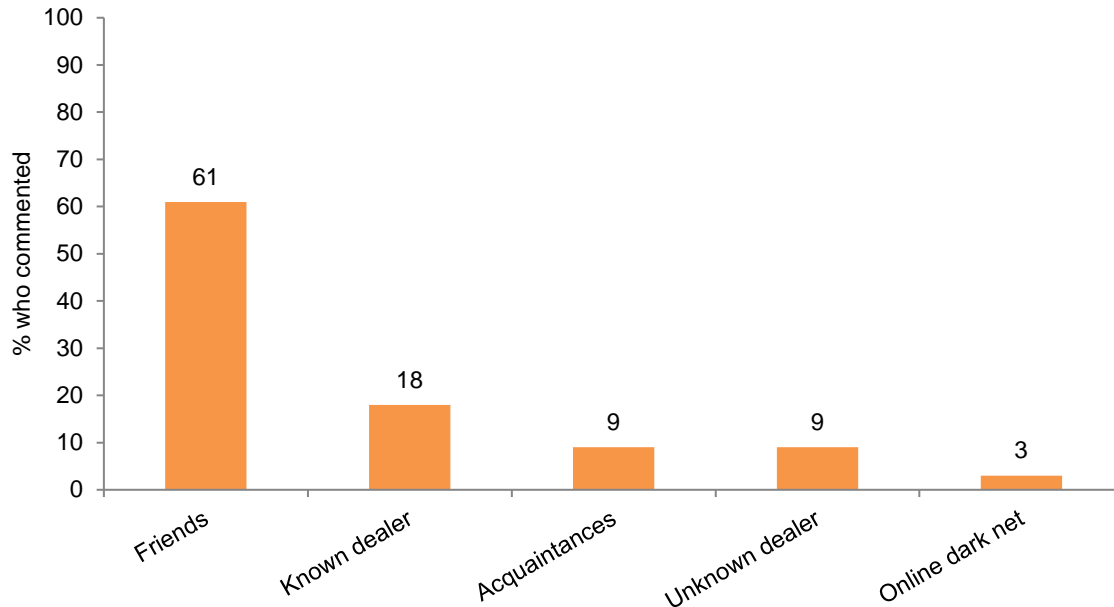
	2009 (N=67)	2013 (N=45)	2014 (N=100)	2015 (N=101)	2016 (N=100)	2017 (N=86)
Ever used (%)	47	64	63	64	75	76
Used last 6 months (%)	11	40	43	32	32	47
<i>Of those who recently used:</i>	(n=7)	(n=18)	(n=43)	(n=32)	(n=32)	(n=39)
Median days used last 6 months (range)	3 (1–12)	2 (1–15)	3 (1–24)	2 (1–14)	4 (1–60)	2 (1–48)
<i>Median quantities used (tabs):</i>					2 (.5–100)	
Typical (range)	1 (.8–2)	1 (1–3)	1.5 (.3–8)	1 (.5–9)	2 (.5–120)	1 (.5–3)
Heavy (range)	1 (.8–3)	1 (1–5)		2 (.5–9)		1.5 (.5–8)

Source: EDRS participant interviews 2009, 2013, 2014, 2015, 2016, 2017

4.5.2 Last source, purchase location and use location of LSD

Among those who commented (n=33), the majority last purchased LSD from a friend (61%) followed by a known dealer (18%) (Figure 13).

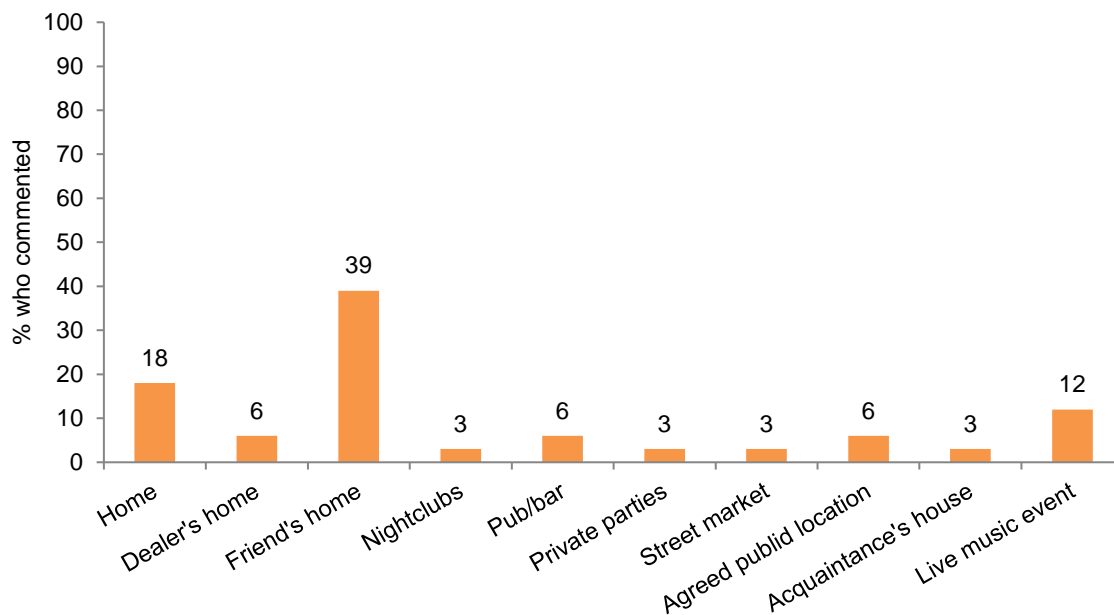
Figure 13: Last source LSD was purchased from by EDRS participants, NT



Source: EDRS participant interviews 2017 (n=33)

The largest percentage of participants reported last purchasing LSD in private settings. The most common private locations where participants purchased LSD included a friend's home (39%) and their own home (18%) (Figure 14).

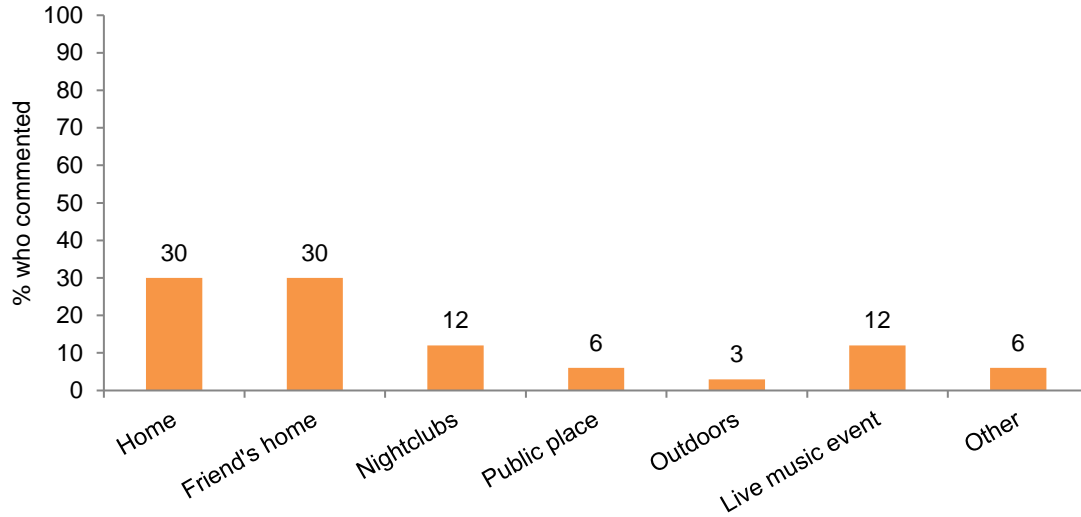
Figure 14: Last location LSD was purchased by EDRS participants, NT



Source: EDRS participant interviews 2017 (n=33)

Participants reported on the last venue where they spent the most time intoxicated on LSD. These included mostly private settings, with the most commonly reported locations being their own home (30%) or a friend's home (30%) (Figure 15).

Figure 15: Last location of LSD use among EDRS participants, NT



Source: EDRS participant interviews 2017 (n=33)
'Other' response includes the beach.

4.6 KETAMINE USE

Summary:

- A third of the sample (33%) had tried ketamine at least once and 11% had used it recently.
- Ketamine was used on a median of one day over the preceding six months.
- NT participants reported that the most common route of ketamine administration was snorting.

Ketamine is a rapid acting, dissociative anaesthetic that is used in veterinary surgery and less commonly in human surgery. Ketamine is a liquid that can be injected for legitimate use. For recreational use, it is typically converted into a fine powder through evaporation, and is typically snorted. Ketamine can also be made into tablets, capsules and tabs, which are usually swallowed. Common names for ketamine include K, special K or vitamin K.

Ketamine produces a dissociative state in the consumer, commonly eliciting an out-of-body experience. It has a combination of stimulant, depressant, hallucinogenic and analgesic properties. Too much ketamine can result in the consumer having a 'near death experience' or falling into a 'K hole'.

As ketamine is complicated to manufacture, and precursor chemicals are difficult to obtain, it is unlikely that it is produced in clandestine laboratories. The majority of ketamine used by EDRS participants is probably diverted from veterinary sources or imported from overseas, making supply irregular compared with other illicit substances (Australian Crime Commission 2008, Australian Crime Commission 2009, Australian Crime Commission 2010).

4.6.1 Ketamine use among EDRS participants

A third (33%) of the 2017 NT sample reported having ever used ketamine and 11% had done so recently. Ketamine had been used on a median of one day (range=1–13) by EDRS participants who had recently used ketamine. The majority of recent consumers reporting using ketamine less than monthly (89%), with the remaining participant reporting more than fortnightly but less than weekly use (11%).

The most common ROA reported by those who had used ketamine in the past six months was snorting (79%), followed by swallowing (22%) and smoking (22%). Due to small numbers reporting their quantity of use, source, purchase location or use location of their most recent use of ketamine, this data is not presented.

Table 10 presents data across time regarding patterns of ketamine use among participants interviewed in the EDRS.

Table 10: Patterns of ketamine use among EDRS participants, NT

	2009 (N=67)	2013 (N=45)	2014 (N=100)	2015 (N=101)	2016 (N=100)	2017 (N=85)
Ever used (%)	13	40	37	42	37	33
Used last 6 months (%)	0	9	15	18	11	11
<i>Of those who recently used:</i>	(n=0)	(n=4)	(n=15)	(n=18)	(n=11)	(n=9)
Median days used last 6 months (range)	–	N/A	3 (1–10)	3 (1–30)	1 (1–12)	N/A N/A
<i>Median quantities used (bumps):</i>			4.5 (1–8)			
Typical (range)	–	N/A	6.5 (1–12)	3 (2–5)	N/A	N/A
Heavy (range)	–	N/A		4 (2–10)	N/A	N/A

Source: EDRS participant interviews 2009, 2013, 2014, 2015, 2016, 2017

N/A: Due to small numbers reporting (n<10), these figures were not reported

4.7 GHB USE

Summary:

- Compared to other illicit drugs, GHB had been used by a smaller percentage of participants in their lifetime (15%) and recently (7%).

Gamma-hydroxybutyrate (GHB) has been researched and used for a number of clinical purposes including as an anaesthetic (Kam and Yoong 1998, Nicholson and Balster 2001). In 1964, GHB was introduced in Europe as an anaesthetic agent particularly for children (Laborit 1964, Vickers 1968), but was not widely used due to the incidence of vomiting and seizures (Hunter, Long et al. 1971). Research also examined the effectiveness of GHB as a narcolepsy treatment (Mamelak 1989, Chin, Kreutzer et al. 1992, Mack 1993) and for alcohol dependence and opioid withdrawal (Kam and Yoong 1998, Nicholson and Balster 2001).

There is also documentation of the use of GHB as a recreational drug, in a range of countries around the world. Common street names for GHB in Australia include 'liquid ecstasy', 'fantasy', 'GBH', 'grievous bodily harm' and 'blue nitro'. Following restrictions on the availability of GHB, there have been reports of the production of GHB from its precursor, gamma-butyrolactone (GBL). The use of GBL, and a similar chemical, 1,4- butanediol (1,4-B), has also been documented (Ingels, Rangan et al. 2000). GBL and 1,4-B are metabolised into GHB in the body. They may be used as substitutes for GHB, but are known to be pharmacologically different.

4.7.1 GHB use among EDRS participants

Fifteen percent of the sample had ever used GHB and seven percent reported having done so recently (Table 11). Due to small numbers reporting (n<10), no findings were published on recent GHB consumption patterns.

Table 11: Patterns of GHB use among EDRS participants, NT

	2009 (N=67)	2013 (N=45)	2014 (N=100)	2015 (N=101)	2016 (N=100)	2017 (N=85)
Ever used (%)	13	13	10	15	24	15
Used last 6 mths (%)	0	2	2	3	4	7

Source: EDRS participant interviews 2009, 2013, 2014, 2015, 2016, 2017

4.8 CANNABIS USE

Summary:

- The vast majority had tried cannabis at least once (97%) and the vast majority had used it recently (88%).
- There was a non-significant decrease in frequency of use, with participants reporting cannabis use on a median of 96 days (i.e. every other day) over the preceding six months, compared to 165 days in 2016.
- Almost half (44%) of recent cannabis consumers reported daily use.
- Both forms of cannabis (hydro and bush) are commonly purchased and consumed within private settings in the NT.
- In the general population, the NT continued to have the highest percentage of people reporting past 12 month cannabis use than any other jurisdiction (16% vs. national rate of 10.4%).

Cannabis is derived from the cannabis plant (*Cannabis sativa*). While cannabis can be grown in almost any climate, it is being increasingly cultivated by means of indoor hydroponic technology. The main active ingredient in cannabis is delta-9-tetrahydrocannabinol (THC). Cannabis is used recreationally in three main forms: marijuana ('bush' or 'hydro' – see below for a description of these forms of marijuana); hashish ('hash'); and hash oil (National Drug and Alcohol Research Centre 2008).

4.8.1 Cannabis use among EDRS participants

Almost every participant in the 2017 NT EDRS (97%) had ever used cannabis and the majority (88%) reported having done so over the six months preceding the interview (Table 12). Cannabis was first used at a median age of 14 years (range=7–19).

Recent cannabis consumers reported having used it on a median of 96 days (range=1–180), which equates to every other day. The frequency of cannabis use has decreased since 2016. While sixteen percent of consumers had used cannabis on a less than monthly basis and eight percent had used on a monthly to fortnightly, the majority had used cannabis more than weekly (72%) and 44% reported daily use. The majority of recent consumers of cannabis had smoked it over the past six months (99%), 13% had inhaled or vaporised it and 13% had recently ingested it.

Recent consumers of cannabis were asked how much they had smoked on their last occasion of use. Thirty participants quantified their last use in terms of cones and reported having smoked a median of 4 cones (range=1–15) on their last occasion of use. Thirty-one quantified their last use in terms of grams and reported having smoked a median of 1.5 grams (range=0.1–3) on their last occasion of use. Thirteen EDRS participants quantified their use in terms of joints and reported having smoked a median of 1 joint (range=0.25–3) on their last occasion of use.

Trends in the use of cannabis are presented in Table 12. There was no significant change in the percentages reporting the lifetime or recent use of cannabis, however a noticeable decrease in days of use was reported among the 2017 sample.

Table 12: Patterns of cannabis use among EDRS participants, NT

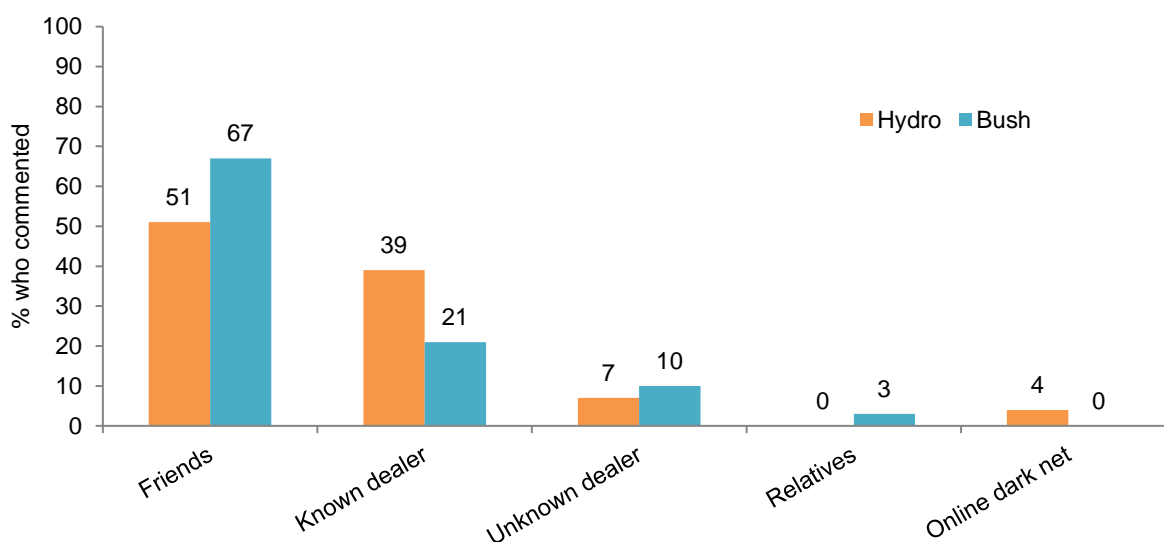
	2009 (N=67)	2013 (N=45)	2014 (N=100)	2015 (N=101)	2016 (N=100)	2017 (N=86)
Ever used (%)	93	98	97	92	98	97
Used last 6 months (%)	60	71	84	82	82	88
<i>Of those who recently used:</i>	(n=40)	(n=31)	(n=82)	(n=82)	(n=82)	(n=75)
Median days used last 6 mths (range)	37 (1–180)	24 (1–180)	30 (1–180)	90 (1–180)	165 (1–180)	96 (1–180)

Source: EDRS participant interviews 2009, 2013, 2014, 2015, 2016, 2017

4.8.2 Last source, purchase location and use location of hydro and bush cannabis

Hydro and bush cannabis were both most commonly purchased from friends (51%; 67% respectively) or known dealers (39%; 21% respectively) (Figure 16).

Figure 16: Last source that hydro and bush cannabis were purchased* from EDRS participants, NT

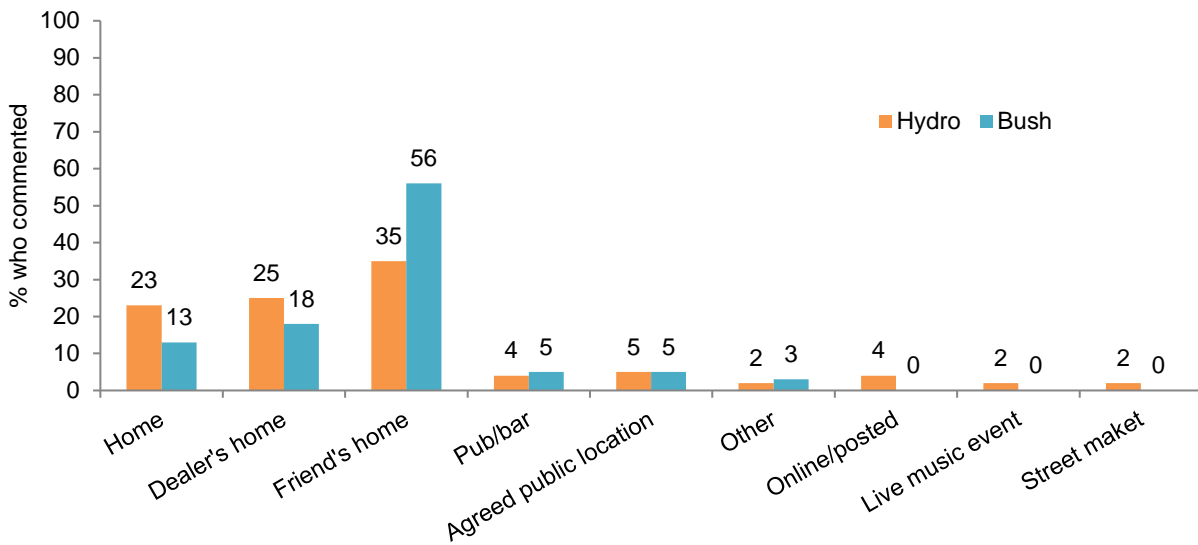


Source: EDRS participant interviews 2017

*Of those who commented (n=57 for hydro, n=39 for bush)

The largest percentage of participants reported last purchasing hydro and bush cannabis at a friend’s home (35%; 56%) or a dealer’s home (25%; 18%) (Figure 17).

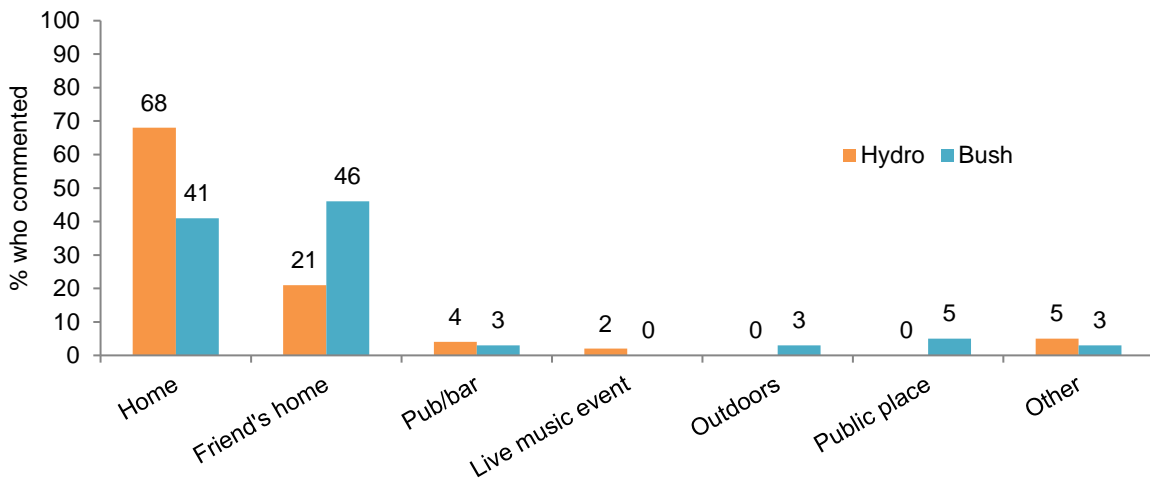
Figure 17: Last location that hydro and bush cannabis were purchased* from EDRS participants, NT



Source: EDRS participant interviews 2017
* Of those who commented (n=57 for hydro, n=39 for bush)

Most participants who had recently used hydro or bush reported they last used in a private setting, including at their own home (68% and 41% respectively) or a friend's home (21% and 46% respectively) (Figure 18).

Figure 18: Last location of hydro and bush cannabis use* among EDRS participants, NT

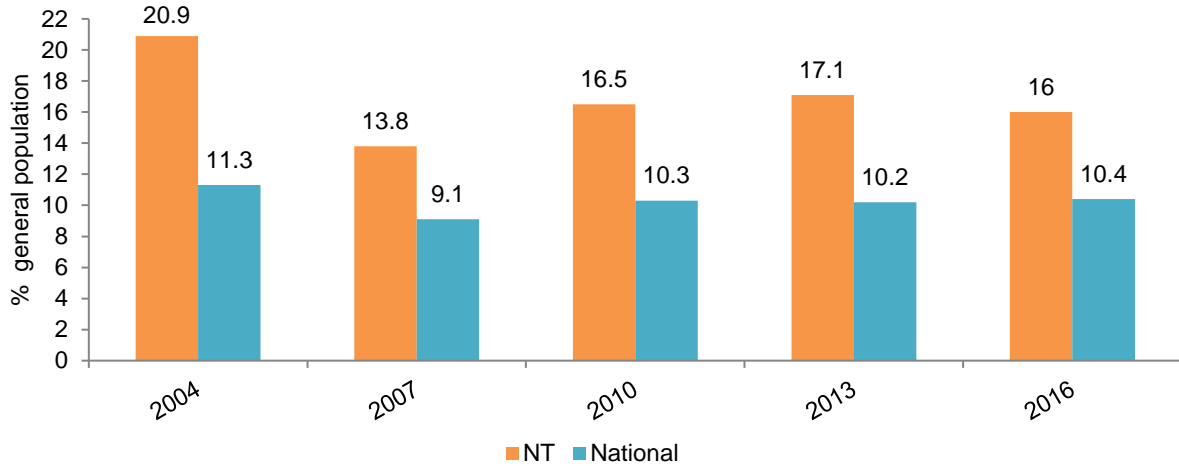


Source: EDRS participant interviews 2017
* Of those who commented (n=56 for hydro, n=39 for bush)

4.8.3 Cannabis use in the general Australian population

The percentage of the NT general population aged 14 years or over reporting past year use of cannabis has been on the increase since 2007 but dropped somewhat in 2016. The national rate has remained more stable (Figure 19). The NT has consistently had the highest percentage of past year cannabis consumers than any other jurisdiction since 1998.

Figure 19: Percentage of sample reporting past 12 month cannabis use in the general population, NT and national



Source: Australian Institute of Health and Welfare (2005, 2008, 2011, 2014, 2017)

4.9 OTHER DRUG USE

Summary:

Alcohol

- All participants reported lifetime use, and 99% reported recent use.
- There was a significant decrease in frequency of use in 2017, with participants reporting alcohol use on a median of 44 days (twice a week) compared to 58 days in 2016 ($p < 0.01$).

Tobacco

- The majority (92%) of the NT sample had used tobacco at least once and had smoked within the past six months (86%). Most recent smokers (51%) used daily.

E-cigarettes

- Fifty-eight percent of the NT sample reported they had used e-cigarettes in their lifetime and 26% had used e-cigarettes recently.

Benzodiazepines

- One-fifth (21%) had recently used benzodiazepines. Illicit use was notably more common than licit use in the past six months (18% vs. 6%).

Antidepressants

- One participant had recently used illicit antidepressants.

Inhalants

- One-fifth (19%) reported lifetime use of amyl nitrite and 8% reported recent use. A third (37%) reported lifetime use of nitrous oxide and a significantly lower percentage reported recent nitrous oxide use compared to 2016 (5% vs. 17% $p < 0.05$)

MDA

- Fourteen percent of the NT sample reported they had used MDA in their lifetime and 6% had used MDA recently.

Heroin and other opiates

- Small numbers reported lifetime use of heroin and other opiates.

Mushrooms

- Half the sample (47%) reported lifetime use of mushrooms and eight percent of the NT participants had used mushrooms in the past six months.

Pharmaceutical stimulants

- Recent illicit use was notably more common than licit use (14% vs. 2%).

Over the counter (OTC) drugs

- Twenty-seven percent of the NT sample reported they had used OTC codeine in their lifetime and 13% had used OTC codeine recently.

Antipsychotics

- Five NT participants reported lifetime use of illicit antipsychotics and two reported recent use.

Performance and image enhancing drugs (PIED)

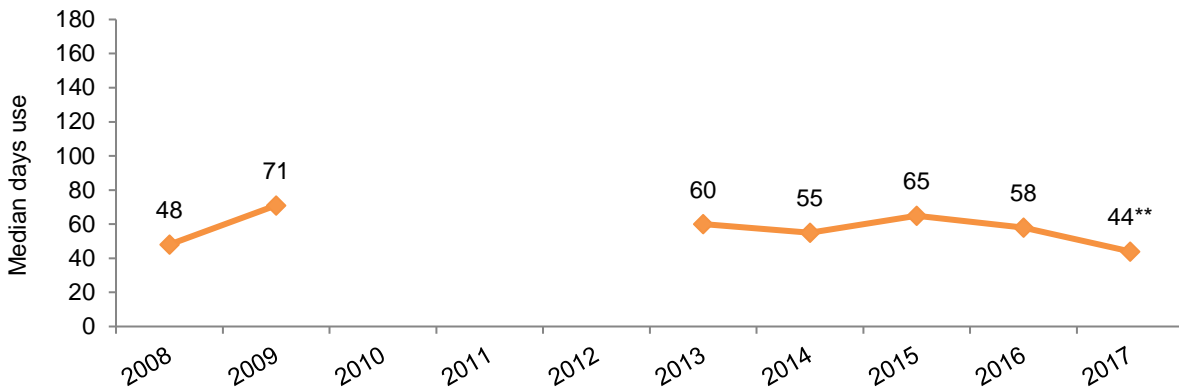
- Three participants reported recent use of PIEDs and one participant reported recent use.

4.9.1 Alcohol

The entire 2017 NT sample reported having used alcohol at least once (100%), and almost all had consumed alcohol in the past six months (99%). Participants had first used alcohol at a median age of 14 years (range=7–18). Over the preceding six months participants reported having consumed alcohol on a significantly lower median of 44 days (range=3-180) in 2017 compared to 58 days in 2016. The majority of EDRS participants had used alcohol on a greater than weekly basis (75%), with one participant reporting daily alcohol use.

Figure 20 presents the median days of use of alcohol by EDRS participants within the six months preceding the interview across time. This figure appears to be decreasing since 2016. See section 7.4 ‘Problematic alcohol use among EDRS participants’ for a discussion of harmful alcohol use among EDRS participants in NT.

Figure 20: Median days of alcohol use among EDRS participants in the last six months, NT



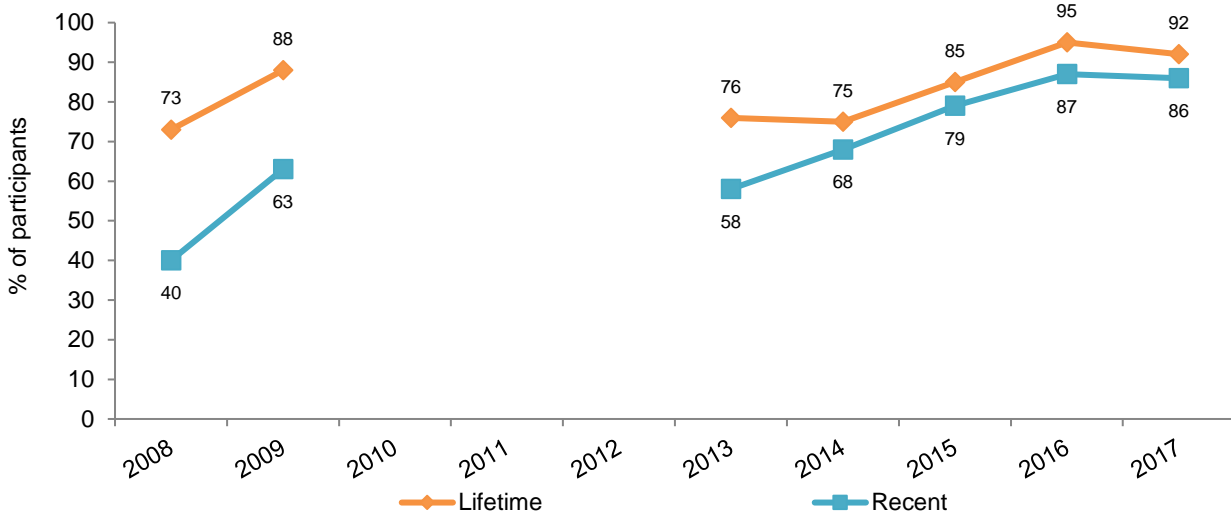
Source: EDRS participant interviews 2008, 2009, 2013, 2014, 2015, 2016, 2017

** $p < 0.01$ from 2016 to 2017

4.9.2 Tobacco

The majority (92%) of EDRS participants interviewed in 2017 reported lifetime tobacco use and the majority (86%) also reported recent use. Tobacco was first used at a median age of 14 years (range=7–19). Tobacco had been used on a median of 180 days (range=3–180) over the preceding six months, with half (51%) of those who had recently used tobacco being daily smokers. There has been an upward trend in the percentage of EDRS participants using tobacco in their lifetime and recently since 2014, however, this increase stabilised in 2017 (Figure 21).

Figure 21: Percentage of EDRS participants reporting lifetime and recent tobacco use, NT



Source: EDRS participant interviews 2008, 2009, 2013, 2014, 2015, 2016, 2017

4.9.3 E-cigarettes

Fifty-eight percent of the NT sample reported they had used e-cigarettes in their lifetime and 26% had used e-cigarettes in the six months prior to interview. Median days used was reported at three days, which is about once every two months (range=1–90 days). Median age of first use was 18 years (range=13–45 years). The majority of recent consumers reported that their e-cigarettes contained nicotine (88%) and had not been used as a smoking cessation tool (94%).

4.9.4 Benzodiazepines

Two-fifths (41%) of the sample reported having ever used any benzodiazepines and one-fifth (21%) reported having done so recently. Among recent consumers, benzodiazepines had been used on a median of 3.5 days (range=1–78) in the last six months. Compared to 2016 figures, lifetime and recent use figures have remained fairly stable in 2017 (Figure 22).

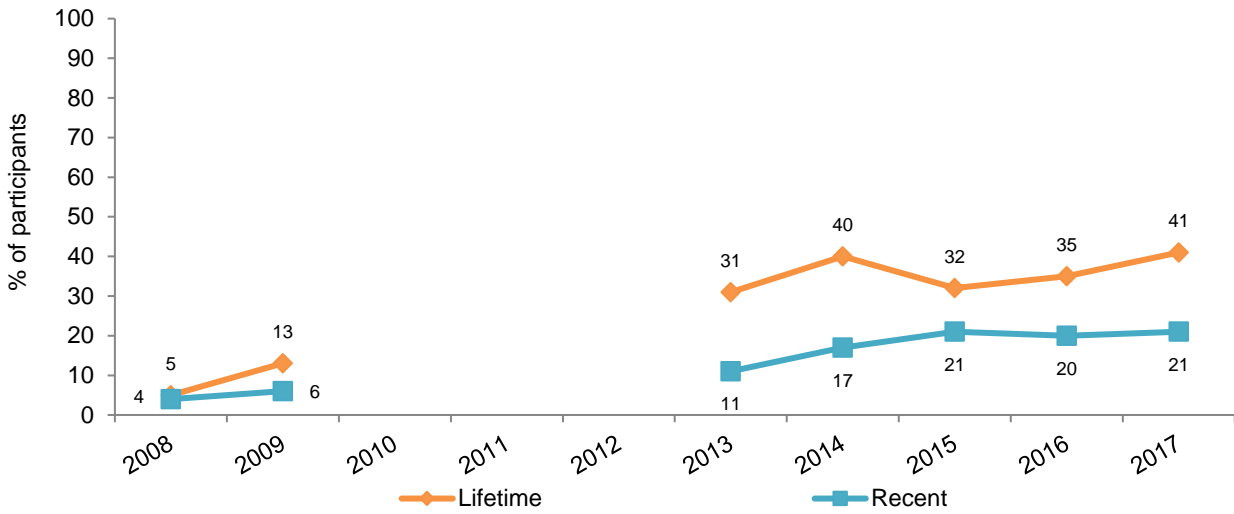
Licit benzodiazepines

One-tenth (11%) of EDRS participants reported having ever used licitly obtained benzodiazepines and five participants (6%) had done so recently. Of the five recent consumers, they had used licit benzodiazepines on a median of 3 days (range=1–70) over the six months prior to the interview and reported swallowing as their only route of administration over this period.

Illicit benzodiazepines

Over one-third (37%) of EDRS participants had ever used illicitly obtained benzodiazepines, and fifteen participants (18%) had done so over the preceding six months. Illicit benzodiazepines had been used on a median of 4 days (range=1–10) in the last six months, and all participants reported swallowing as their route of administration.

Figure 22: Percentage of EDRS participants reporting lifetime and recent benzodiazepine use (licit and illicit), NT



Source: EDRS participant interviews 2008, 2009, 2013, 2014, 2015, 2016, 2017

4.9.5 Illicit antidepressants

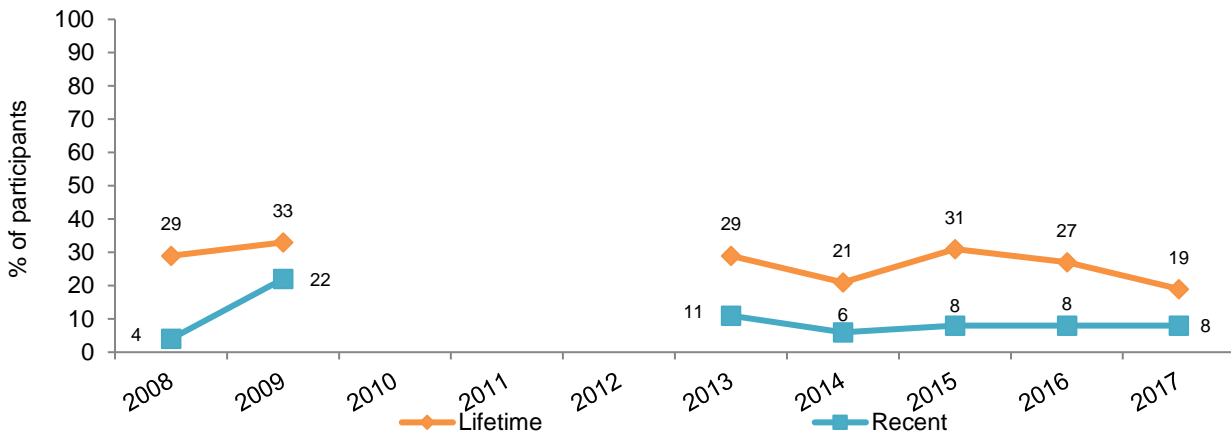
In 2017, the EDRS only asked participants about their use of illicit antidepressants. Six participants (7%) in the NT EDRS reported lifetime use and one participant (1%) reported recent use of illicit antidepressants on 10 days.

4.9.6 Inhalants

Amyl nitrite

Approximately one-fifth (19%) of EDRS participants interviewed had ever used amyl nitrite, and eight participants (8%) had used it over the preceding six months (Figure 23). Those who had recently used it had done so on a median of 4 days (range=1–25) over the preceding six months.

Figure 23: Percentage of EDRS participants reporting lifetime and recent amyl nitrite use, NT

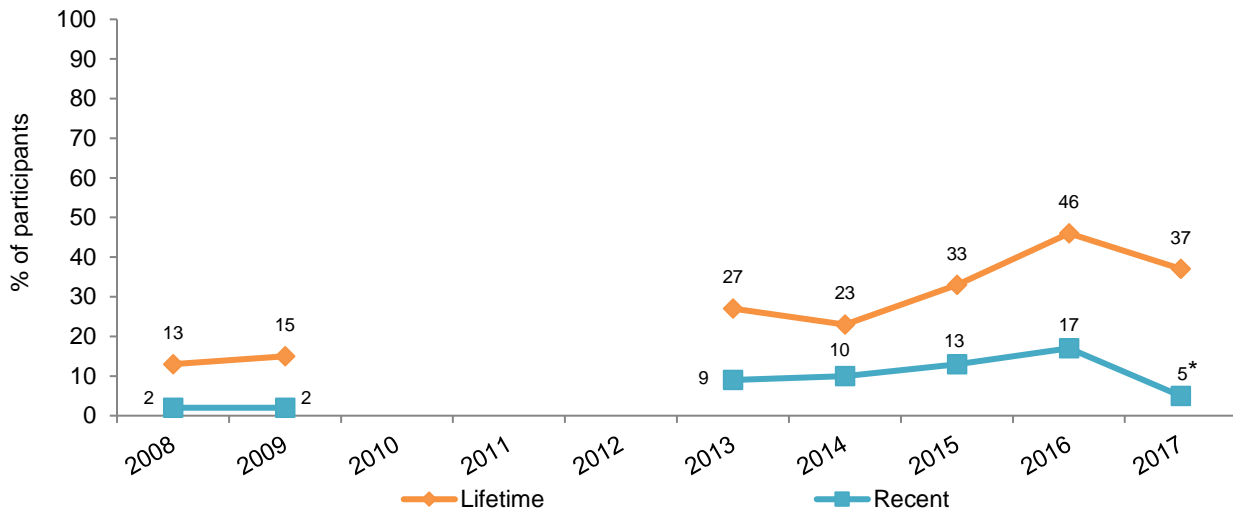


Source: EDRS participant interviews 2008, 2009, 2013, 2014, 2015, 2016, 2017

Nitrous oxide

Over a third (37%) of the sample reported having ever used nitrous oxide and 5% had done so recently; this showed to be significantly different to 2016 (5% vs. 17; $p < 0.01$) (Figure 24). Among those who had used it over the last six months, nitrous oxide had been used on a median of 2.5 days (range=1–6).

Figure 24: Percentage of EDRS participants reporting lifetime and recent nitrous oxide use, NT



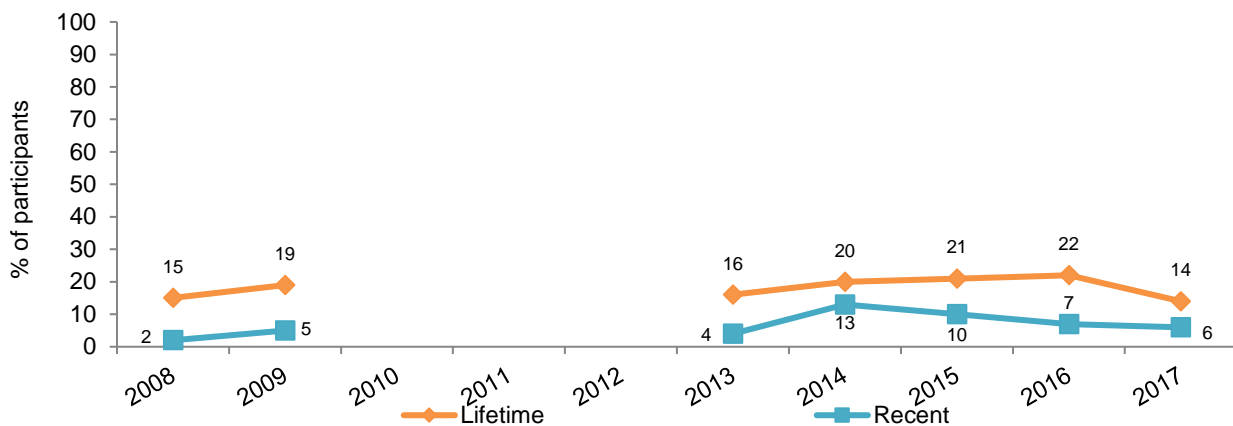
Source: EDRS participant interviews 2008, 2009, 2013, 2014, 2015, 2016, 2017

* $p < 0.05$ from 2016 to 2017

4.9.7 MDA

Fourteen percent of participants in the 2017 EDRS reported having ever used MDA and 6% reported they had used it over the preceding six months, both of which were stable from 2016 (Figure 25). Those who had used MDA over the last six months did so on a median of one day (range=1–2).

Figure 25: Percentage of EDRS participants reporting lifetime and recent MDA use, NT



Source: EDRS participant interviews 2008, 2009, 2013, 2014, 2015, 2016, 2017

4.9.8 Heroin and other opiates

Heroin

Five EDRS participants (6%) reported that they had ever used heroin, however no participants reported using it in the preceding six months.

Methadone and buprenorphine

No participants in the 2017 NT EDRS reported lifetime or recent use of methadone whereas one participant reported both lifetime and recent use of buprenorphine.

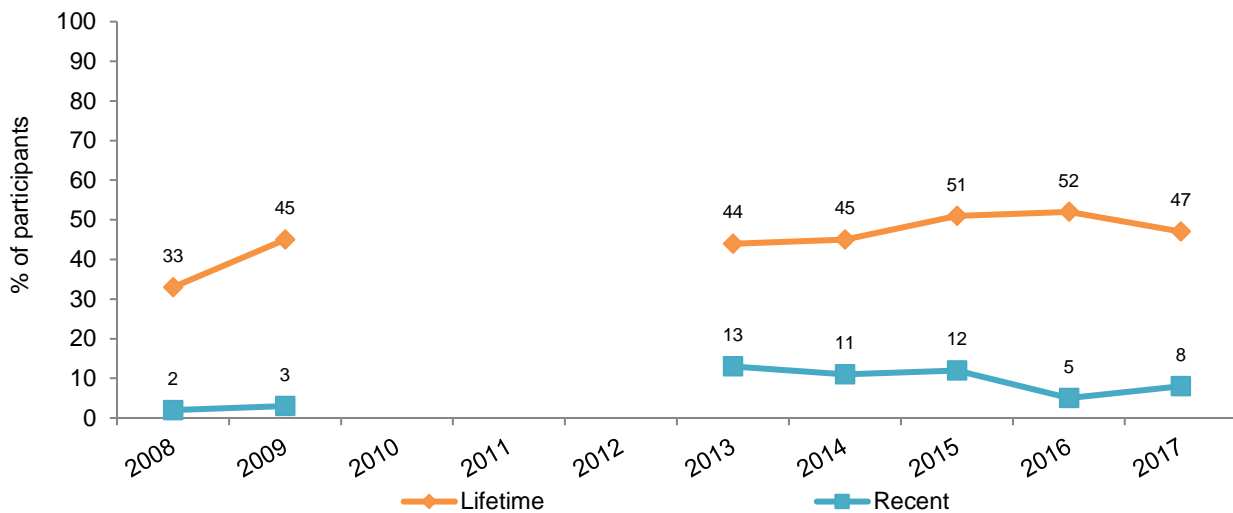
Other opiates

Fifteen respondents (18%) had ever used a licitly obtained opiate (other than methadone or buprenorphine), eight participants (9%) had used a licitly obtained opiate recently. Sixteen participants (19%) had ever used illicitly obtained opiates (other than heroin, methadone or buprenorphine). Six participants (7%) had used them over the six months prior to the interview.

4.9.9 Mushrooms

Half (47%) of the EDRS participants interviewed in 2017 reported having ever used mushrooms and 8% had done so over the preceding six months (Figure 26). Among those who had used it over the last six months did so on a median of two days (range=1–2) over the preceding six months.

Figure 26: Percentage of EDRS participants reporting lifetime and recent mushroom use, NT



Source: EDRS participant interviews 2008, 2009, 2013, 2014, 2015, 2016, 2017

4.9.10 Pharmaceutical stimulants

Licit pharmaceutical stimulants

Seven percent of the sample reported having ever used licitly obtained pharmaceutical stimulants and two percent had used them recently.

Illicit pharmaceutical stimulants

One-third (33%) of the sample had ever used illicitly obtained pharmaceuticals and 14% had done so over the preceding six months.

4.9.11 Over the counter drugs

Codeine

Twenty-seven percent of the sample reported having ever used over the counter (OTC) codeine-containing products for non-pain use and close to half of these participants (13%) reported having done so over the preceding six months. Recent consumers reported using OTC codeine on a median of two days (range=1–45), with all participants reporting that the only route of administration was swallowing.

Stimulants

Thirteen percent of the sample reported having ever used over the counter stimulants (such as Sudafed and Codral) for non-medicinal use and three participants (4%) had used them recently. Given such a small sample of recent consumers, details regarding frequency and quantity of use are not presented.

4.9.12 Antipsychotics

Five participants (6%) in 2017 reported having ever used illicit antipsychotics and two had used illicit antipsychotics recently. Given such a small sample of recent consumers, details regarding frequency and quantity of use are not presented.

4.9.13 Dextromethorphan (DXM)

Eight participants (9%) reported to have ever used DXM and six participants had done so in the last six months. Given the small sample the details of frequency and quantity of use are not presented.

4.9.14 Performance and image enhancing drugs (PIED)

Three participants (4%) reported lifetime use of steroids, one of whom reported steroid use in the preceding six months. Due to a small sample of recent consumers, data on frequency and quantity of use are not presented.

4.10 NEW PSYCHOACTIVE SUBSTANCE (NPS) USE

Summary:

- Almost one-third (29%) of the sample reported using some form of NPS in the last six months.
- The most commonly used NPS were synthetic cannabinoids, DMT and herbal highs.

From 2010 onward, the EDRS has attempted to systematically investigate a group of emerging drugs known as ‘new psychoactive substances’ (also known as research chemicals, analogues, legal highs, herbal highs, party pills). These drugs can be classified as outlined in Figure 27.

Figure 27: New psychoactive substances (NPS) investigated by the EDRS participants, NT

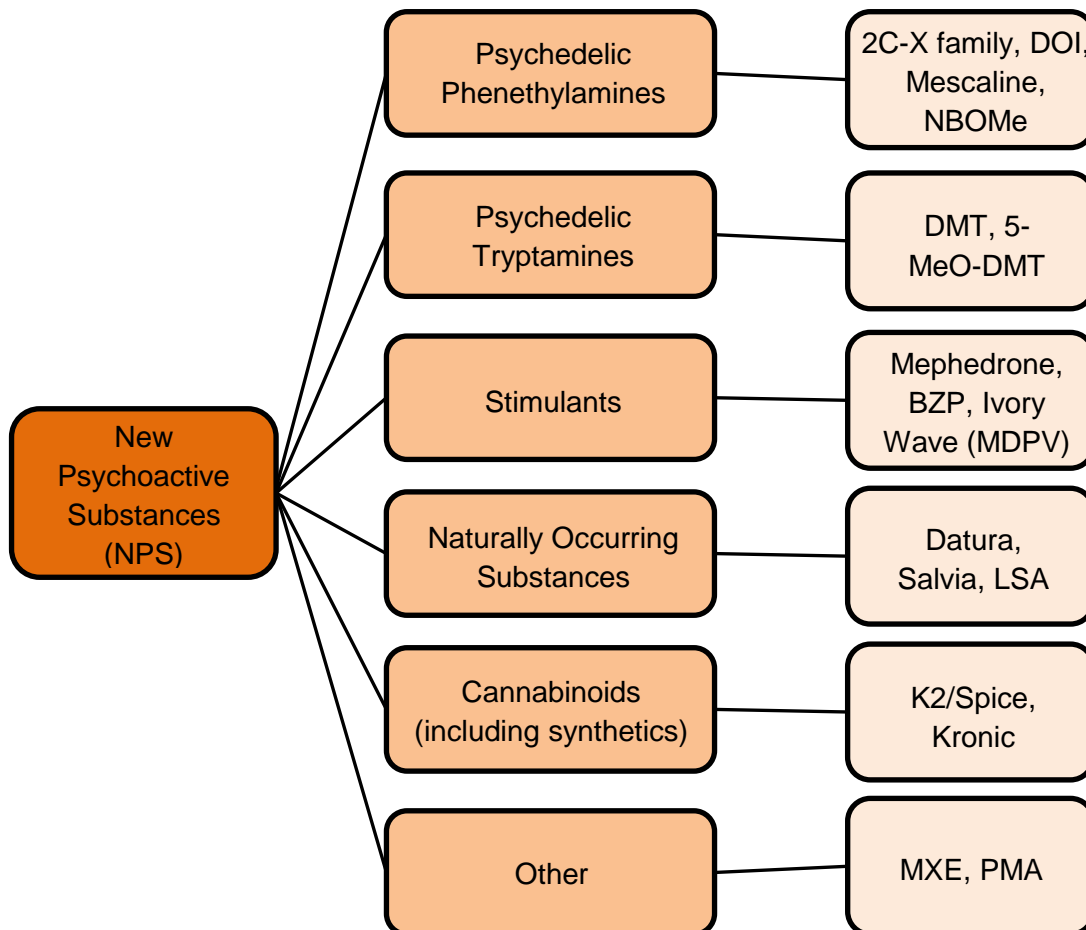


Table 13 provides a very brief introduction to some of the mostly commonly used NPS in order to provide a rough guide for interpreting trends data. Interested readers are directed toward online sources such as Erowid (<http://www.erowid.org/splash.php>) and Drugscope (<http://www.drugscope.org.uk/>) for more comprehensive information on these drugs.

Table 13: New psychoactive substances

Street	Chemical name	Information on	Information on use and effects
<i>Psychedelic Phenethylamines</i>			
2C-I	2,5-dimethoxy-4-iodophenethylamine	A psychedelic drug with stimulant effects	Recent reports suggest that 2C-I is slightly more potent than the closely related 2C-B. A standard oral dose of 2C-I is between 10–25mg.
2C-B	4-Bromo-2,5-dimethoxyphenethylamine	A psychedelic drug with stimulant effects	2C-B is sold as a white powder sometimes pressed in tablets or gel caps. The dosage range is listed as 16–24mg. Commonly taken orally but can also be snorted.
2C-E	2,5-dimethoxy-4-ethylphenethylamine	A psychedelic drug with stimulant effects	Mostly taken orally and is highly dose-sensitive. 2C-E is commonly active in the 10–20mg range.
DOI (death on impact)	2,5-dimethoxy-4-iodoamphetamine	A psychedelic phenethylamine	Requires only very small doses to produce full effects. It is uncommon as a substance for human ingestion but common in research. Has been found on blotting paper and may be sold as LSD. ³
Mescaline	3,4,5-trimethoxyphenethylamine	A hallucinogenic alkaloid	First isolated in 1896 from the peyote cactus of northern Mexico. A standard dose for oral mescaline use ranges from 200–500mg.
NBOMe	4-chloro-2,5-dimethoxy-N-(2-methoxybenzyl)phenethylamine	A psychedelic drug with stimulant and euphoriant effects	Discovered in 2003, NBOMe emerged on the market in 2010, despite little history of human use prior. Reported that NBOMe blotters are sometimes misrepresented as, or mistaken for, LSD.
<i>Psychedelic Tryptamines</i>			
DMT	Dimethyl tryptamine	A hallucinogenic drug in the tryptamine family	Similar to LSD though its effects are said to be more powerful. Pure DMT is usually found in crystal form but has been reportedly sold in powder form. ⁴
5-MeO-DMT	5-methoxy-N,N-dimethyltryptamine	A naturally occurring psychedelic tryptamine	5-MeO-DMT is comparable in effects to DMT; however, it is substantially more potent. It can be injected, smoked or sniffed. Mostly seen in crystalline form ⁵ but has been reportedly sold as powder.

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

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

⁵ Erowid: http://www.erowid.org/chemicals/5meo_dmt/5meo_dmt.shtml

Table 13: New psychoactive substances (continued)

Street	Chemical name	Information on	Information on use and effects
<i>Stimulants</i>			
Mephedrone	4-methyl-methcathinone	A stimulant which is closely chemically related to amphetamines	Reportedly produces a similar experience to drugs like amphetamines, ecstasy or cocaine. Mephedrone is a white, off-white or yellowish powder although it may also appear in pill or capsule form. Mephedrone is probably the most well-known of a group of drugs derived from cathinone (a chemical found in the plant called khat). ⁶
BZP	1-benzylpiperazine	A piperazine; a CNS stimulant.	Gained popularity in some countries in the early 2000s as a legal alternative to amphetamines and ecstasy. One of the more common piperazines, providing stimulant effects which people describe as noticeably different than those of amphetamines. Not particularly popular as many people find that it has more unpleasant side effects than amphetamines. BZP is used orally at doses of between 70–150mg and effects are reported to last 6–8 hours. ⁷
MDPV / Ivory wave	Methylenedioxypropylone (3,4-methylenedioxy)	A cathinone derivative	More potent than other cathinones. Lidocaine (a common local anaesthetic) is frequently used as a cutting agent, to give consumers the numbing sensation in the mouth or nose, which is associated with drugs of high purity (e.g. high-purity cocaine). ⁸
<i>Naturally Occurring Substances</i>			
Datura	Commonly <i>Datura innoxia</i> and <i>Datura stramonium</i> . Contains Atropine and Scopolamine. Also known as Angel's Trumpet	Atropine is a potent anticholinergic agent. Scopolamine is a CNS depressant and has antimuscarinic properties	The plant's effects make the consumer feel drowsy, drunk-like and detached from things around them. They can also bring on hallucinations. Doses are difficult to judge and can cause unconsciousness and death. ⁹

⁶ Drugscope: <http://www.drugscope.org.uk/resources/drugsearch/drugsearchpages/mephedrone>

⁷ Erowid: http://www.erowid.org/chemicals/bzp/bzp_basics.shtml

⁸ Drugscope: http://www.drugscope.org.uk/Media/Press+office/pressreleases/ivory_wave_MDPV

⁹ Drugscope: <http://www.drugscope.org.uk/resources/drugsearch/drugsearchpages/datura>

Table 13: New psychoactive substances (continued)

Street	Chemical name	Information on drug	Information on use and effects
<i>Naturally Occurring Substances (continued)</i>			
Salvia	<i>Salvia divinorum</i> (contains Salvinorin A)	Salvia is derived from the American plant <i>Salvia divinorum</i> , a member of the mint family	At low doses (200–500mcg) salvia produces profound hallucinations that last from 30 minutes to an hour or so. In higher doses the hallucinations last longer and are more intense. ¹⁰
LSA	<i>l</i> -lysergic acid amide	A naturally occurring psychedelic found in plants such as Morning Glory and Hawaiian Baby Woodrose seeds	LSA has some similarities in effect to LSD, but is generally considered much less stimulating and can be sedating in larger doses.
<i>Other Psychoactive Substances</i>			
PMA	Paramethoxyamphetamine; 4-methoxyamphetamine	A synthetic hallucinogen that has stimulant effects	Ingesting a dose of less than 50mg (usually one pill or capsule) without other drugs or alcohol induces symptoms reminiscent of MDMA, although PMA is more toxic than MDMA. Doses over 50mg are considered potentially lethal (due to the risk of overheating). Pure PMA is a white powder, but street products can also be beige, pink or yellowish. Today it is usually made into pressed pills. ¹²
K2/Spice	Synthetic cannabinoid	Usually sold as loose, generic plant material with a mix of chemicals on it (containing synthetic cannabinoids)	A psychoactive herbal and chemical product that, when consumed, mimics the effects of cannabis.
Methylone	3,4-methylenedioxy- <i>N</i> -methylcathinone	An entactogen and stimulant of the phenethylamine, amphetamine, and cathinone classes	Reported dosages range from 100-250mg orally. Effects are primarily stimulant in nature.

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

¹¹ Erowid: http://www.erowid.org/chemicals/dxm/dxm_basics.shtml

¹² Drugscope: <http://www.drugscope.org.uk/resources/drugsearch/drugsearchpages/pma>

Amongst the 2017 NT EDRS sample, 59% reported lifetime use and 29% reported using NPS in the last six months. The most common NPS ever used among participants were synthetic cannabinoids (34%), DMT (22%) and herbal highs (15%). On a more recent basis, the most common NPS used in the six months preceding the interview were DMT (13%), synthetic cannabinoids (6%) and methylone (5%) (Table 14). There were no significant differences compared to 2016 however, overall there has been less recent use reported in 2017 (29% vs. 31%).

Table 14: NPS use among EDRS participants, NT

	2014 (N=100)	2015 (N=101)	2016 (N=100)	2017 (N=86)
<i>Synthetic cannabinoids^a</i>				
ever used (%)	Data not collected		32	34
used last 6 months (%)			15	6
<i>DMT</i>				
ever used (%)	15	21	27	22
used last 6 months (%)	8	6	16	13
<i>Herbal highs</i>				
ever used (%)	11	16	18	15
used last 6 months (%)	3	8	8	2
<i>2C-B</i>				
ever used (%)	8	20	11	8
used last 6 months (%)	2	11	2	1
<i>Mephedrone</i>				
ever used (%)	16	21	8	4
used last 6 months (%)	5	3	0	1
<i>Methylone</i>				
ever used (%)	5	7	7	5
used last 6 months (%)	2	5	1	5
<i>Mescaline</i>				
ever used (%)	1	6	7	5
used last 6 months (%)	0	0	0	0
<i>Salvia</i>				
ever used (%)	18	19	6	8
used last 6 months (%)	5	2	0	0
<i>2C-I</i>				
ever used (%)	11	7	4	1
used last 6 months (%)	3	1	1	0

Source: EDRS participant interviews 2014, 2015, 2016, 2017

N/A: Data not collected

^a In years prior to 2016, synthetic cannabinoids were reported separately as Kronic, K2/Spice, and other synthetic cannabinoids

Table 14: NPS use among EDRS participants, NT (continued)

	2014 (N=100)	2015 (N=101)	2016 (N=100)	2017 (N=86)
<i>LSA</i>				
ever used (%)	2	2	4	N/A
used last 6 months (%)	1	2	1	
<i>Datura</i>				
ever used (%)	2	1	3	N/A
used last 6 months (%)	0	0	1	
<i>BZP</i>				
ever used (%)	0	2	3	1
used last 6 months (%)	0	0	0	0
<i>Methoxetamine / MXE</i>				
ever used (%)	0	3	2	0
used last 6 months (%)	0	0	1	0
<i>Ayahuasca</i>				
ever used (%)	N/A		2	4
used last 6 months (%)			1	1
<i>MDPV / Ivory Wave</i>				
ever used (%)	3	4	1	0
used last 6 months (%)	0	2	0	0
<i>2C-E</i>				
ever used (%)	5	3	1	0
used last 6 months (%)	0	0	0	0
<i>PMA</i>				
ever used (%)	1	4	1	1
used last 6 months (%)	0	0	0	0
<i>Alpha PVP</i>				
ever used (%)	N/A		1	1
used last 6 months (%)			0	0
<i>NBOMe</i>				
ever used (%)	3	5	0	6
used last 6 months (%)	3	2	0	2
<i>5-MeO-DMT</i>				
ever used (%)	2	1	0	1
used last 6 months (%)	1	0	0	0
<i>Benzo Fury / 6-APB</i>				
ever used (%)	2	0	0	N/A
used last 6 months (%)	1	0	0	

Source: EDRS participant interviews 2014, 2015, 2016, 2017

N/A: Data not collected

Table 14: NPS use among EDRS participants, NT (continued)

	2014 (N=100)	2015 (N=101)	2016 (N=100)	2017 (N=86)
<i>MDAI</i>				
ever used (%)	1	1	0	N/A
used last 6 months (%)	0	1	0	
<i>5-IAI</i>				
ever used (%)	0	0	0	N/A
used last 6 months (%)	0	0	0	
<i>DO-x</i>				
ever used (%)	0	0	0	0
used last 6 months (%)	0	0	0	0
<i>Other substituted cathinone</i>				
ever used (%)	0	2	0	2
used last 6 months (%)	0	0	0	0
<i>Etizolam</i>				
ever used (%)	N/A		0	0
used last 6 months (%)			0	0
<i>4-FA</i>				
ever used (%)	N/A		0	0
used last 6 months (%)			0	0
<i>4-AcO-DMT</i>				
ever used (%)	N/A		0	1
used last 6 months (%)			0	0
<i>4-MEC</i>				
ever used (%)	N/A		0	N/A
used last 6 months (%)			0	

Source: EDRS participant interviews 2014, 2015, 2016, 2017

N/A: Data not collected

5 DRUG MARKET: PRICE, PURITY, AVAILABILITY

5.1 ECSTASY

Summary:

Ecstasy pills

- *Price:* \$35 per pill, stable.
- *Perceived purity:* Currently medium/high with similar percentages reporting that the purity had remained stable (33%), decreased (28%) or fluctuated (27%) in past six months.
- *Availability:* Currently easy to very easy to obtain and stable.

Ecstasy capsules

- *Price:* \$35 per capsule, stable.
- *Perceived purity:* Currently reported as medium/high, stable.
- *Availability:* Currently easy to very easy to obtain and stable.

Ecstasy powder

- Numbers too small (n<10) to report.

MDMA crystal

- *Price:* \$300 per gram, stable.
- *Perceived purity:* Currently high and stable.
- *Availability:* Currently easy to very easy to obtain and stable.

5.1.1 Price

The majority (86%) of participants were able to comment on the price of ecstasy in Darwin. The median price was reported by consumers to be \$35 per pill (range=\$20–50), \$35 per capsule (range=\$12–50) and \$300 per gram of MDMA crystal (range=\$50–400). Due to small numbers (n<10), ecstasy powder per gram is not reported. As can be seen in Table 15 the price has remained fairly stable since 2013.

Table 15: Median price of ecstasy as reported by EDRS participants, NT

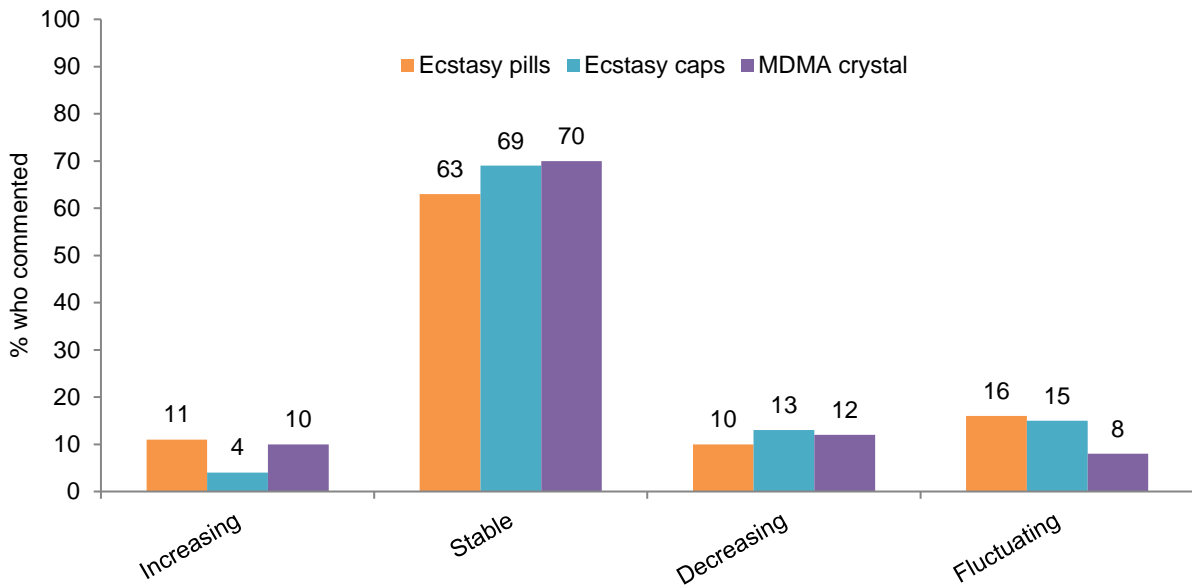
	2009 (N=67)	2013 (N=45)	2014 (N=100)	2015 (N=101)	2016 (N=100)	2017 (N=86)
<i>Median price</i>						
<i>\$ (range)</i>						
Per pill	50 (17–70)	35 (15–50)	40 (20–60)	40 (15–67)	35 (8–300)	35 (20–50)
Per gram powder	N/A	N/A	N/A	N/A	250 (20–350)	N/A
Per capsule	N/A	N/A	40 (25–70)	45 (20–60)	N/A	35 (12–50)
Per gram MDMA crystal	N/A	N/A	400 (40–600)	300 (20–450)	320 (35–800)	300 (50–400)

Source: EDRS participant interviews 2009, 2013, 2014, 2015, 2016, 2017

N/A: No data available or numbers (n<10) too small

In relation to price changes of various ecstasy forms over the six months preceding the interview, the majority felt that ecstasy pills, capsules and MDMA crystals had remained stable (63%; 69%; 70%, respectively). Ecstasy powder was not reported as the numbers were too low (n<10) (Figure 28). The reports of changes in price have remained stable since 2016.

Figure 28: EDRS participants' reports of changes in price in the past six months*, NT



Source: EDRS participant interviews 2017

Response option 'don't know' was removed from analyses

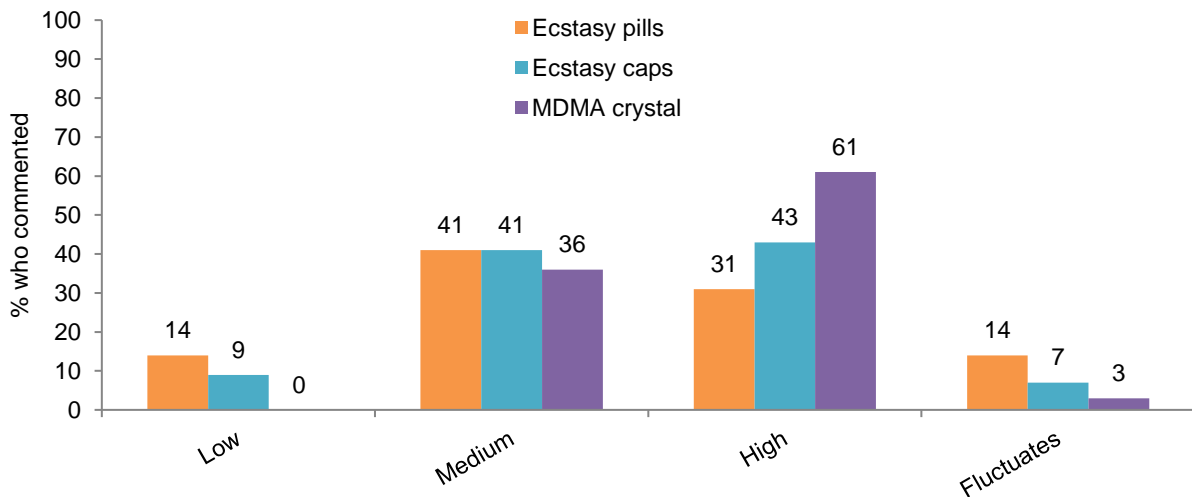
*Of those who commented (pills n=71, capsules n=48 and MDMA crystal n=50). Numbers for powder (n=6) were too small to report

5.1.2 Perceived purity

Current purity

Figure 29 presents EDRS participants' reports of ecstasy purity in 2017. As illustrated, there was less agreement on the perceived purity of ecstasy pills and capsules compared to MDMA crystals. The largest percentage reported that MDMA crystal was of high purity (61%); a lesser amount reported that ecstasy caps were of high purity (43%) with a similar percentage reporting it as medium (41%). The largest percentage of those able to answer (41%) reported that ecstasy pills were of medium purity, whilst a third (31%) perceived current purity to be high. These trends are comparable with 2016.

Figure 29: EDRS participants' reports of current ecstasy purity*, NT



Source: EDRS participant interviews 2017

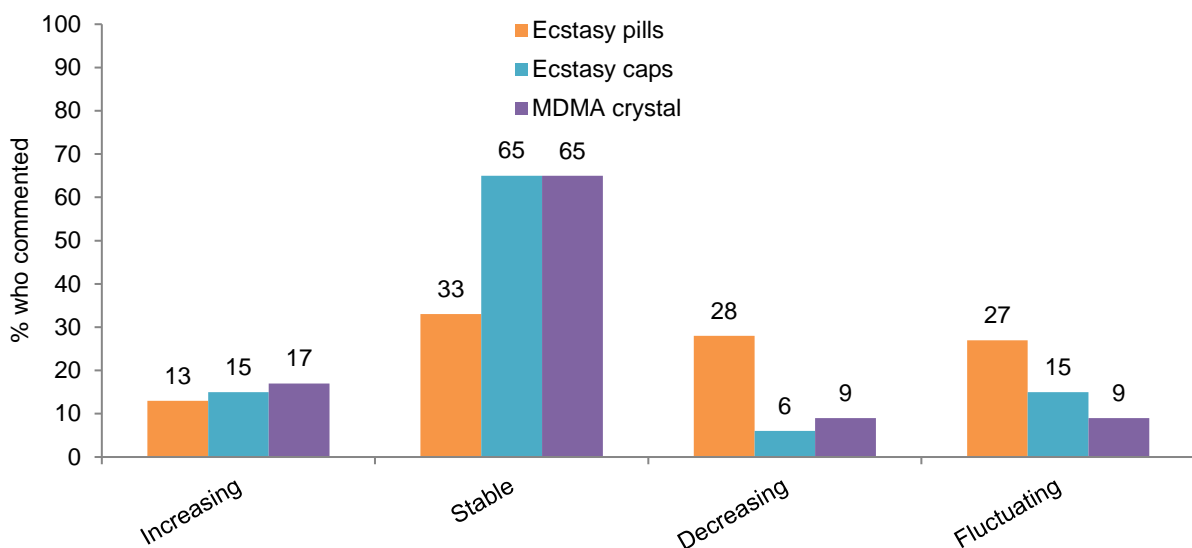
Response option 'don't know' was removed from analyses

*Of those who commented (pills n=71, capsules n=54 and MDMA crystal n=62). Numbers for powder (n=7) were too small to report

Purity change

Figure 30 presents EDRS participants' reports of changes in the perceived purity of ecstasy over the six months prior to the interview. Over half of the sample reported that the purity of ecstasy caps and MDMA crystal had remained stable (65%, respectively). The purity of ecstasy pills was reported as being stable by 33% of the respondents followed by 28% who perceived the purity to be decreasing and 27% who reported it to be fluctuating. This contrasts with 2016, in which the majority of participants reported that the purity of pills, powder and capsules had been fluctuating, whilst MDMA crystal was reported to have been stable.

Figure 30: EDRS participants' reports of changes in ecstasy purity in the past six months*, NT



Source: EDRS participant interviews 2017

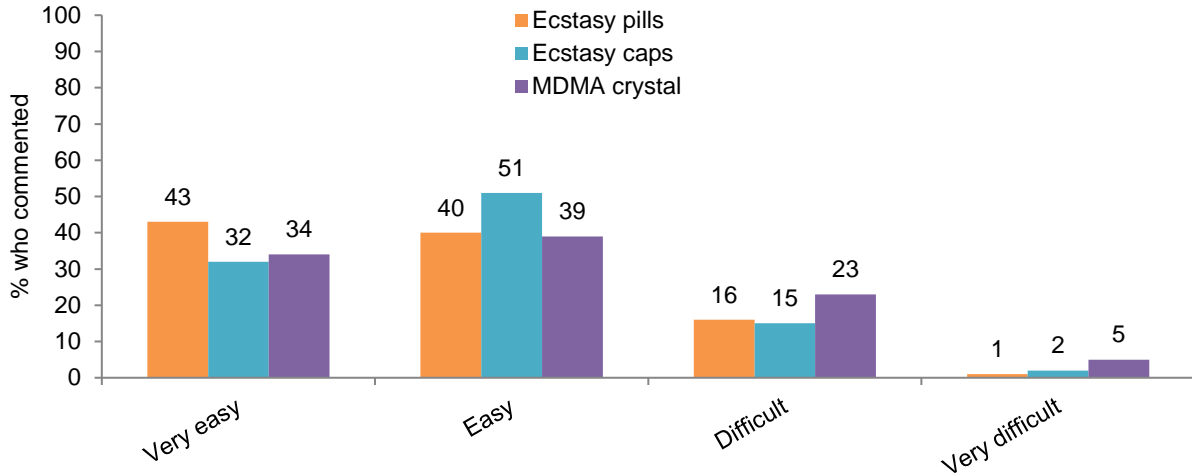
Response option 'don't know' was removed from analyses

*Of those who commented (pills n=64, capsules n=48 and MDMA crystal n=54). Numbers for powder (n=6) were too small to report

5.1.3 Availability

The majority of EDRS participants reported that it was currently 'easy' or 'very easy' to obtain ecstasy pills, capsules and MDMA crystals (83%, 83% and 73%, respectively) (Figure 31). These trends are comparable to 2016.

Figure 31: EDRS participants' reports of current ecstasy availability*, NT



Source: EDRS participant interviews 2017

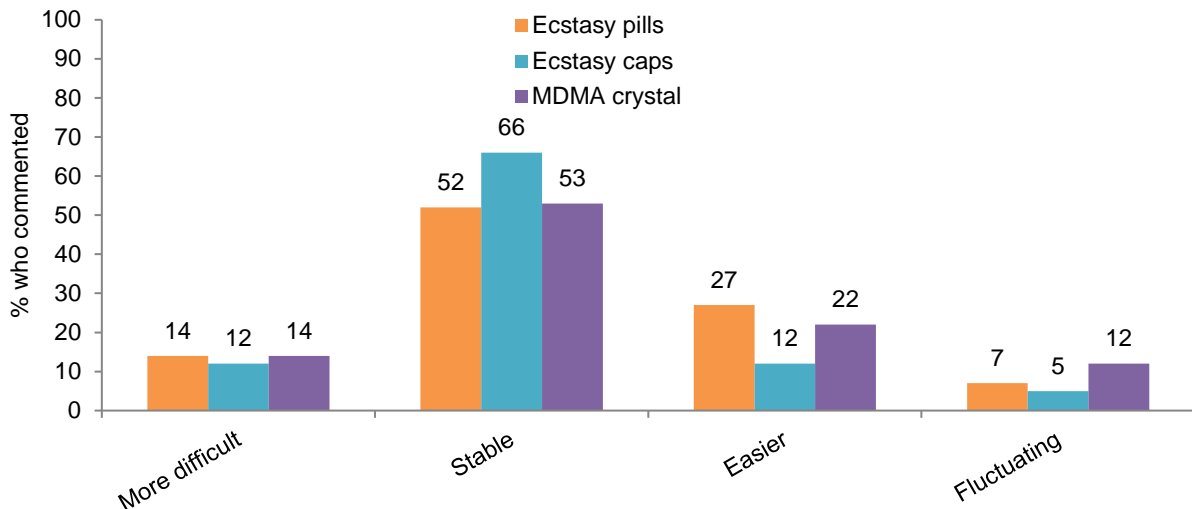
Response option 'don't know' was removed from analyses from 2010 onward

Of those who commented (pills n=73, capsules n=53 and MDMA crystal n=62). Numbers for powder (n=7) were too small to report

Availability change

Figure 32 presents EDRS participants' report of changes in the availability of ecstasy over the six months prior to the interview. The majority of the sample reported the availability of all three forms (pills, caps and MDMA crystals) to be stable (52%, 66% and 53%, respectively); this was similar to 2016.

Figure 32: EDRS participants' reports of changes in ecstasy availability in the past six months*, NT



Source: EDRS participant interviews 2017

Response option 'don't know' was removed from analyses

Of those who commented (pills n=73, capsules n=50 and MDMA crystal n=59). Numbers for powder (n=6) were too small to report

5.2 METHAMPHETAMINE

Summary:

Speed

- *Price*: Numbers too small ($n < 10$) to report.
- *Perceived purity*: Currently high.
- *Availability*: Currently 'easy' to 'very easy' to obtain, mostly stable over past six months.

Base

- Numbers too small ($n < 10$) to report.

Crystal

- *Price*: \$100 per point and stable.
- *Perceived purity*: Currently medium and stable.
- *Availability*: Currently 'very easy' to obtain, stable.

5.2.1 Price

Speed

Only three participants were able to comment on the price of speed over the preceding six months; hence data for this question is not presented.

Base

None of the NT EDRS participants were able to comment on the price of base over the preceding six months.

Crystal methamphetamine

Ten participants were able to comment on the last price paid for crystal methamphetamine in the preceding six months. Most participants reported the price of crystal methamphetamine per point, whereby the median price for a point of crystal methamphetamine was \$100 (range=\$80–150) (Table 16). The majority of participants who commented believed the price of crystal methamphetamine had remained stable (60%) over the preceding six.

Table 16: Median price of various methamphetamine forms purchased by EDRS participants, NT

\$	2009	2013	2014	2015	2016	2017
<i>Speed</i>	n=24	n=5	n=24	n=9	n=18	n=3
Point (range)	50 (50)	N/A	N/A	N/A	N/A	N/A
Gram (range)	300 (100–800)	N/A	350 (80–900)	N/A	300 (100–400)	N/A
<i>Base</i>	n=3	n=0	n=3	n=2	n=3	n=0
Point (range)	N/A	N/A	N/A	N/A	N/A	N/A
Gram (range)	N/A	N/A	N/A	N/A	N/A	N/A
<i>Crystal</i>	n=3	n=4	n=19	n=21	n=28	n=10
Point (range)	N/A	N/A	N/A	150 (100–180)	100 (100–200)	100 (80–150)
Gram (range)	N/A	N/A	N/A	N/A	N/A	N/A

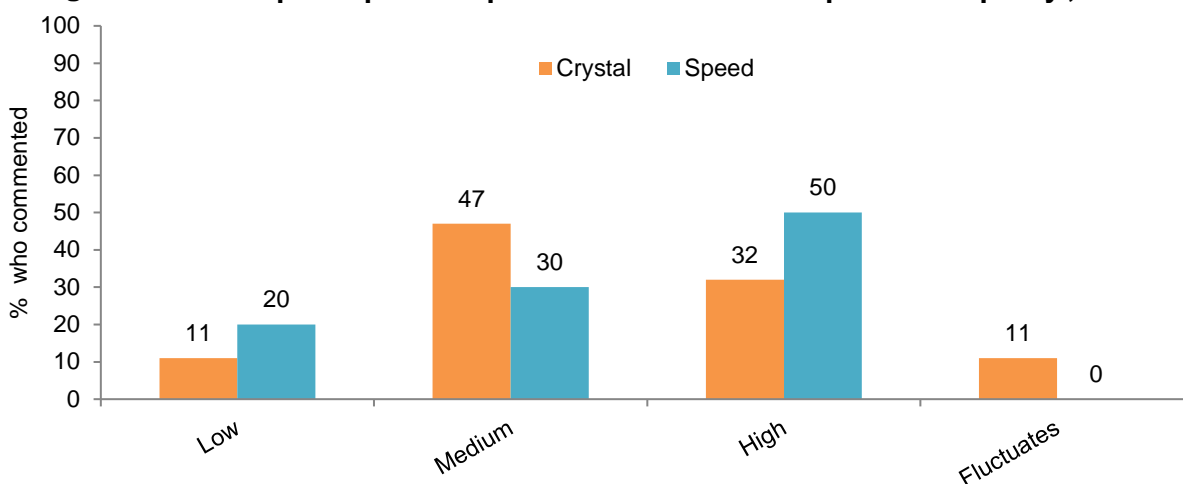
Source: EDRS participant interviews 2009, 2013, 2014, 2015, 2016, 2017

N/A: Due to small numbers reporting (n<10), these figures were not reported

5.2.2 Perceived purity

Figure 33 illustrates that the purity of speed was largely perceived as high (50%), whilst the purity of crystal methamphetamine was perceived as medium (47%). This trend has changed since 2016, where the majority of participants reported that purity was high for both crystal and speed.

Figure 33: EDRS participants' reports of current methamphetamine purity*, NT



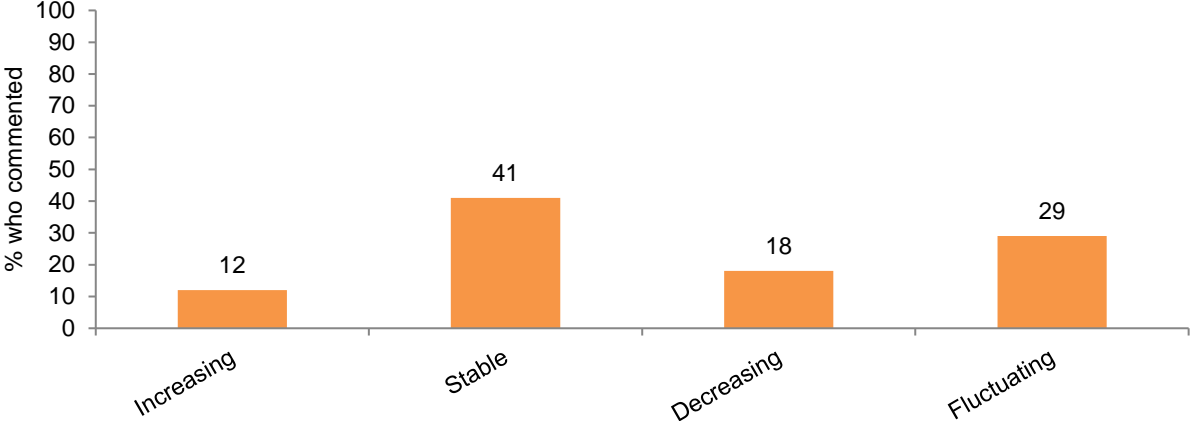
Source: EDRS participants interviews 2017

*Don't know' responses removed

*Of those who commented (speed n=10; crystal methamphetamine n=19). Numbers for base (n=0) were too small to report

Figure 34 presents data on the perceived change in purity of crystal methamphetamine over the six months preceding the interview. In 2017, participants reported that crystal methamphetamine purity had remained stable over the past six months (41%), followed by 29% that reported the purity had fluctuated. In 2016, the majority of the participants reported that the purity of crystal methamphetamine had fluctuated.

Figure 34: EDRS participants' reports of changes in crystal methamphetamine purity in the past six months*, NT



Source: EDRS participant interviews 2017

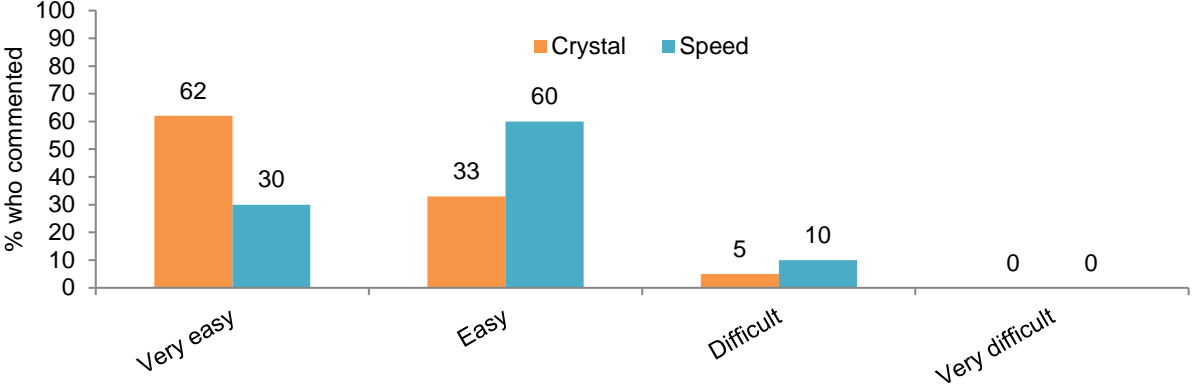
*Don't know' responses removed

* Of those who commented (crystal methamphetamine n=17). Numbers for base (n=0) and speed (n=6) were too small to report

5.2.3 Availability

Both crystal methamphetamine and speed were reported as being 'very easy' to 'easy' to obtain (95% and 90% respectively). No participants reported that either had been 'very difficult' to obtain (Figure 35). These trends have remained stable since 2016.

Figure 35: EDRS participants' reports of current availability of methamphetamine forms*, NT



Source: EDRS participant interviews 2017

*Don't know' responses removed

* Of those who commented (speed n=10; crystal methamphetamine n=21). Numbers for base (n=0) were too small to report

The majority of the participants who commented on the change of speed availability reported that it had been mostly stable (64%) or fluctuating (18%). For crystal methamphetamine, participants reported availability had remained mostly stable (45%) or had become easier to obtain (30%).

5.3 COCAINE

Summary:

- *Price:* \$350 per gram and mostly stable.
- *Perceived purity:* Medium and mostly stable.
- *Availability:* Mixed reports on the ease of accessibility of cocaine, which is stable with previous trends.

5.3.1 Price

Twenty-three participants were able to comment on the price of cocaine in the NT. The median price per gram was reported as \$350 (range=\$250–500) (Table 17). The majority of participants (59%) who commented on whether the price of cocaine had changed in the NT over the preceding six months reported that it had remained stable, followed by 19% reporting that it had increased, 11% reporting that the price had decreased and the final 11% reporting that it had fluctuated.

Table 17: Median price of cocaine purchased by EDRS participants, NT

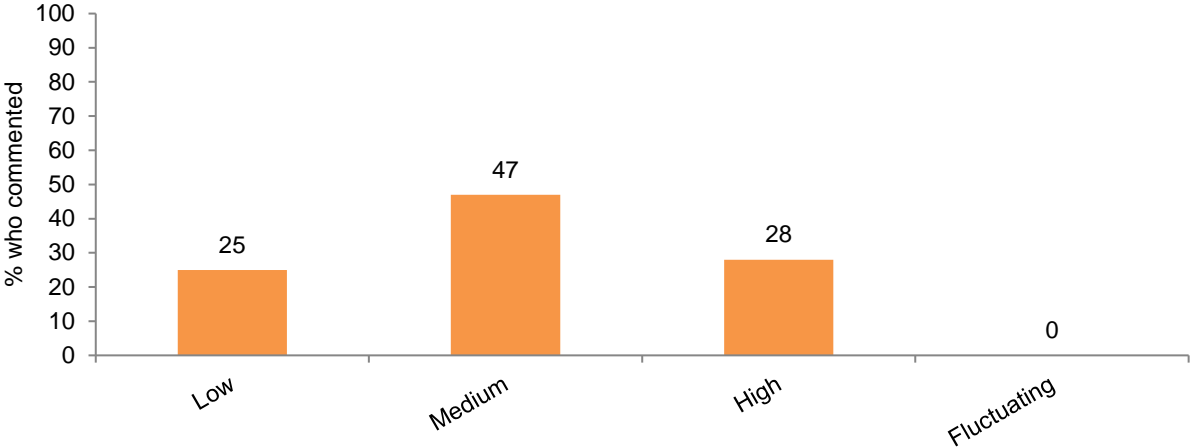
\$	2009 (n=5)	2013 (n=6)	2014 (n=13)	2015 (n=14)	2016 (n=24)	2017 (n=23)
Per gram (range)	N/A	N/A	350 (100–800)	300 (50–450)	350 (40–750)	350 (250-500)

Source: EDRS participant interviews 2009, 2013, 2014, 2015, 2016, 2017
 N/A: Due to small numbers (n<10) reporting, these figures were not reported

5.3.2 Perceived purity

Thirty-two EDRS participants were able to comment on the current perceived purity of cocaine. Most participants reported cocaine purity as ‘medium’ (47%) followed by ‘high’ (28%) and ‘low’ (25%) purity. Participants reported that over the past six months, the purity overall had remained stable (56%). In 2016 the purity of cocaine was reported as ‘medium’ (39%) by fewer participants and ‘low’ (35%) by more participants in comparison to 2017 (47% and 25%, respectively). A minority of participants had reported the purity to be ‘high’ in 2016 (4%) compared to 28% in 2017 (Figure 36).

Figure 36: EDRS participants’ reports of current purity of cocaine*, NT

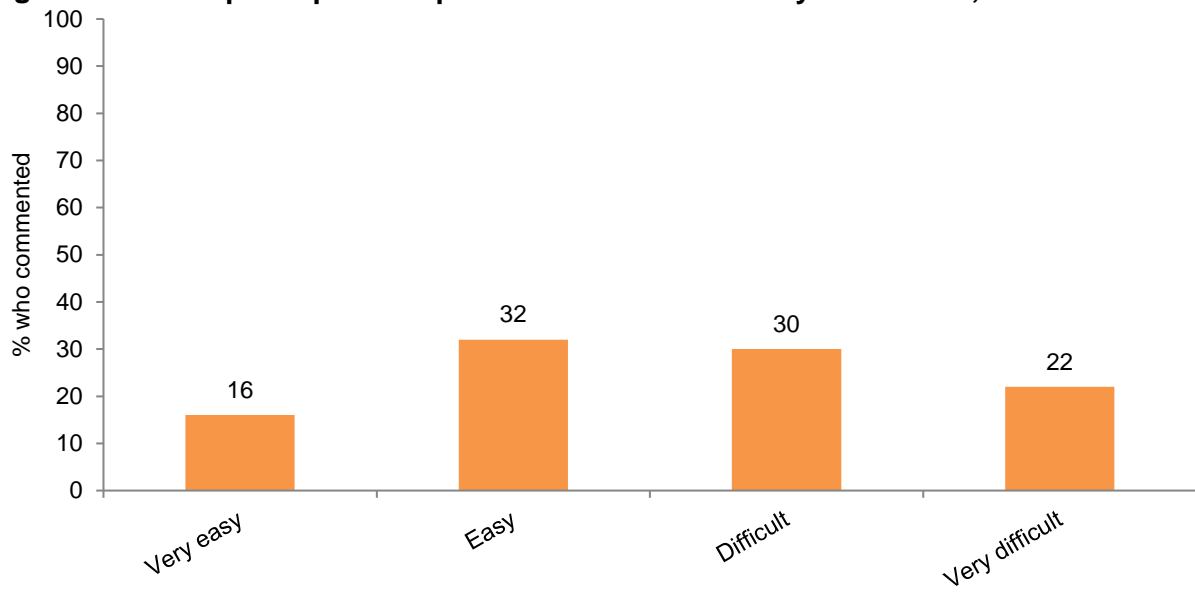


Source: EDRS participant interviews 2017
 Response option ‘don’t know’ was removed from analyses
 Of those who commented (n=32)

5.3.3 Availability

Thirty-seven participants commented on the availability of cocaine in the NT. There was a relatively even split between those who reported that cocaine had been easy to access compared to those who had found accessing cocaine more difficult (Figure 37). The majority stated that the availability of cocaine had remained stable over the preceding six months (58%). This remained unchanged since 2016.

Figure 37: EDRS participants' reports of current availability of cocaine*, NT



Source: EDRS participant interviews 2017

Response option 'don't know' was removed from analyses

Of those who commented (n=37)

5.4 LSD

Summary:

- *Price*: \$25 per tab and mostly stable.
- *Perceived purity*: Currently high and stable.
- *Availability*: Currently 'easy' to 'very easy', and stable.

5.4.1 Price

Thirty participants reported on the price of LSD (Table 18). The median price last paid for a tab of LSD was \$25 (range=\$10–45). The majority reported that the price had remained stable (67%) over the past six months and a smaller percentage (15%) reported that the price had decreased over the past six months.

Table 18: Median price of LSD purchased by EDRS participants, NT

\$	2009 (n=3)	2013 (n=9)	2014 (n=23)	2015 (n=21)	2016 (n=21)	2017 (n=30)
Per tab (range)	N/A	N/A	25 (10–40)	25 (8–50)	30 (2–50)	25 (10–45)

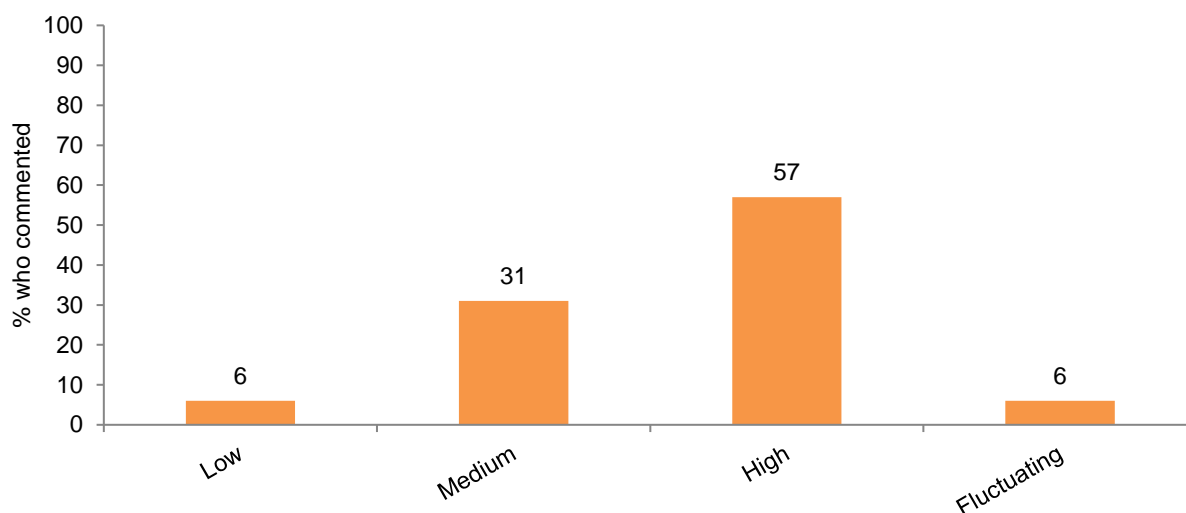
Source: EDRS participant interviews 2009, 2013, 2014, 2015, 2016, 2017

N/A: Due to small numbers (n<10) reporting, there figures were not reported

5.4.2 Perceived purity

Thirty-five participants commented on the perceived purity of LSD. Of these, 57% reported that LSD was currently of 'high' purity and 31% reported 'medium' purity (Figure 38). Over half of the participants also reported that the purity of LSD had been stable over the past six months (67%), with smaller percentages reporting it had decreased (15%) or increased (11%). This differed from 2016 reports, where the majority of participants reported that the purity had been fluctuating (50%).

Figure 38: EDRS participants' reports of current purity of LSD*, NT



Source: EDRS participant interviews 2017

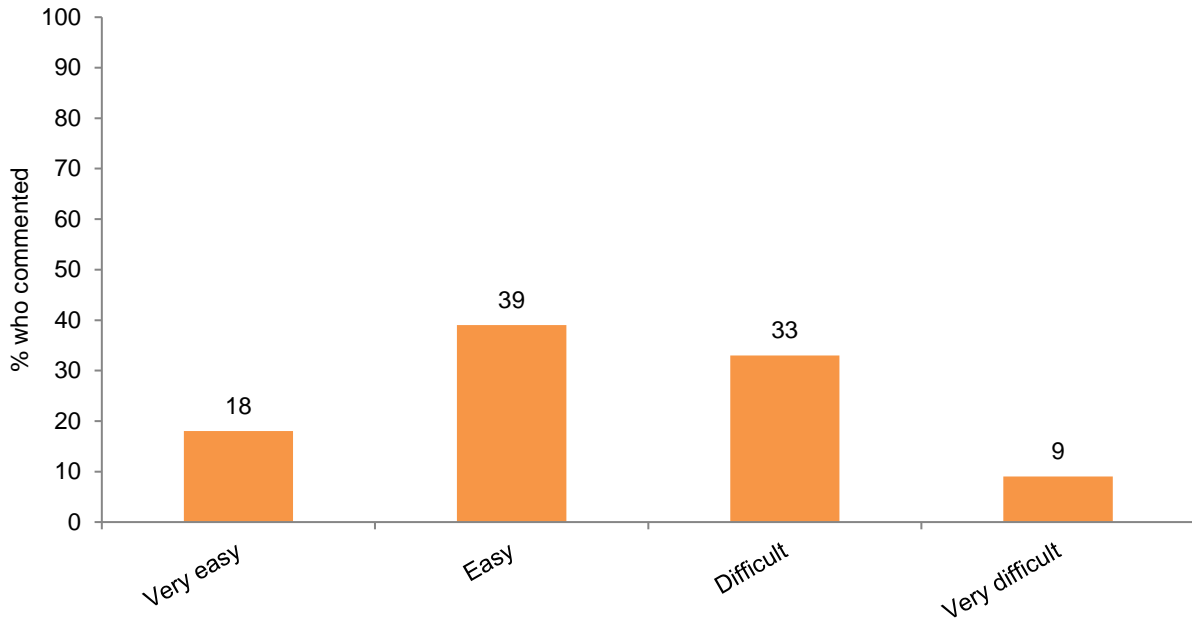
* Response option 'don't know' was removed from analyses

Of those who commented (n=35)

5.4.3 Availability

Thirty-three participants commented on the availability of LSD. The majority of respondents (57%) reported that LSD was currently 'very easy' or 'easy' to obtain (Figure 39). In 2017, a larger percentage of participants responded that the availability was difficult (33%) compared to 2016 (16%). Over half of those who commented on availability of LSD reported that it had remained stable (57%) over the past six months, with a further 23% reporting it had become more difficult to obtain.

Figure 39: EDRS participants' reports of current availability of LSD*, NT



Source: EDRS participant interviews 2017

Response option 'don't know' was removed from analyses

* Of those who commented (n=33)

5.5 KETAMINE

Summary:

- There was no reliable NT data reported on the price, purity or availability of ketamine for 2017.

Two participants in the NT EDRS provided information on the price, purity or availability of ketamine in Darwin for 2017. Due to small numbers ($n < 10$), these data have not been published.

5.6 GHB

Summary:

- There was no reliable NT data reported on the price, purity or availability of GHB for 2017.

Three participants in the NT EDRS provided information on the price, purity or availability of GHB in Darwin for 2017. Due to small numbers ($n < 10$), these data have not been published.

5.7 CANNABIS

Summary:

Hydro

- *Price*: \$30 per gram; \$400 per ounce and stable.
- *Perceived potency*: Currently high and stable.
- *Availability*: Currently 'very easy' to obtain and stable.

Bush

- *Price*: \$30 per gram; \$350 per ounce and stable.
- *Perceived potency*: Currently low and stable.
- *Availability*: Currently 'easy' to 'very easy' to obtain and stable.

5.7.1 Price

Table 19 presents the reported price for one ounce and one gram of hydro and bush cannabis. The prices reported in 2017 for hydro and bush have remained fairly stable compared to 2016.

Table 19: Median price of hydroponic and bush cannabis purchased by EDRS participants, NT

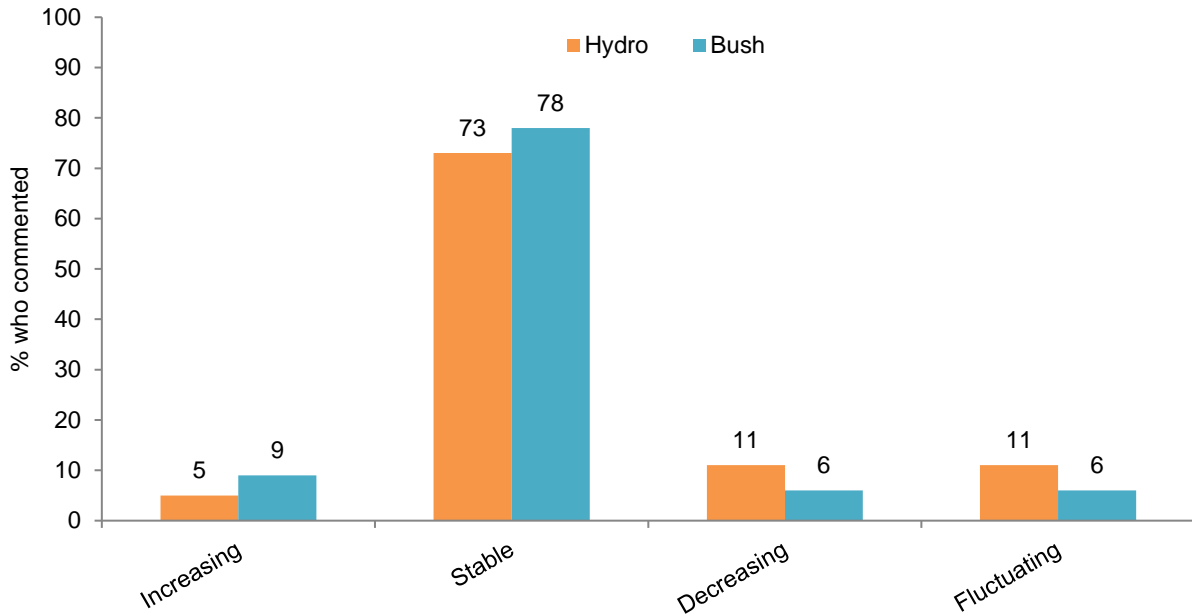
\$	2009	2013	2014	2015	2016	2017
<i>Hydro</i>						
Per ounce (range)	N/A	N/A	n=20 450 (280–500)	n=18 450 (200–500)	n=37 400 (200–500)	n=35 400 (200–500)
Per gram (range)	N/A	N/A	n=21 30 (20–60)	n=16 27.5 (20–30)	n=22 30 (15–50)	n=26 30 (15–80)
<i>Bush</i>						
Per ounce (range)	N/A	N/A	n=13 400 (100–450)	N/A	n=16 400 (100–450)	n=18 350 (200–450)
Per gram (range)	N/A	N/A	n=14 30 (15–30)	N/A	n=10 30 (20–30)	n=16 30 (10–50)

Source: EDRS participant interviews 2009, 2013, 2014, 2015, 2016, 2017

N/A: Due to small numbers (n<10) reporting, these figures were not reported

Participants were asked about changes to the price of hydro and bush over the preceding six months. The vast majority reported that it had remained stable for hydro (73%) and bush (78%) (Figure 40), similar to 2016 data.

Figure 40: EDRS participants' reports of price change of hydro and bush cannabis*, NT

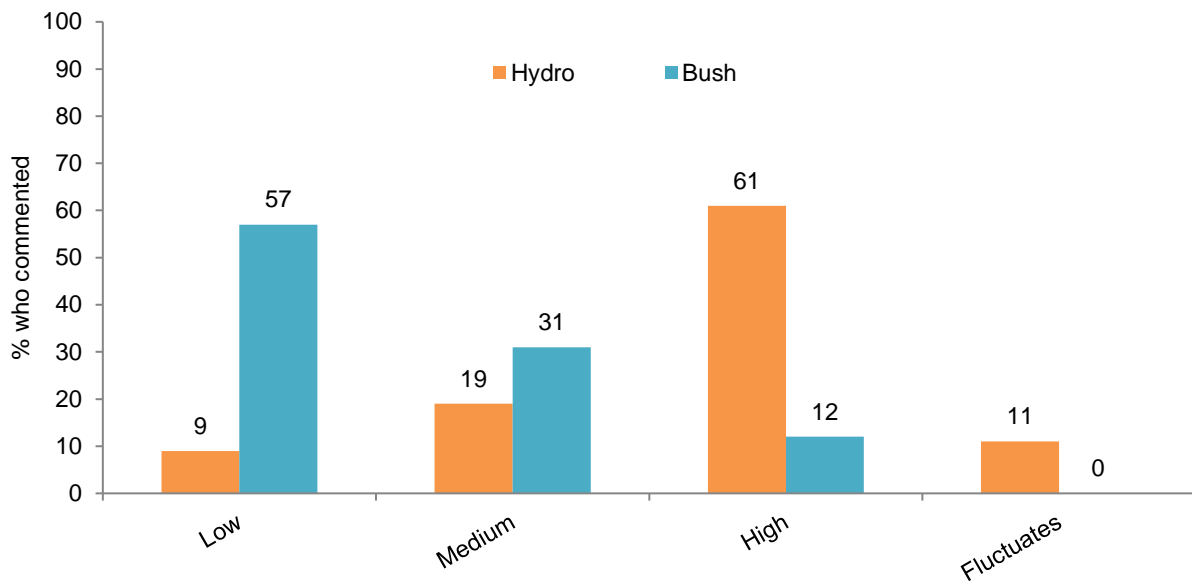


Source: EDRS participant interviews 2017
 *'Don't know' responses removed from analyses
 †Of those who commented (n=56 for hydro, n=32 for bush)

5.7.2 Perceived potency

Figure 41 presents participants' perceptions of the current potency of hydro and bush cannabis. The majority reported that hydro was currently of 'high' potency (61%), and the majority of those who commented on bush potency reported that it was currently of 'low' potency (57%).

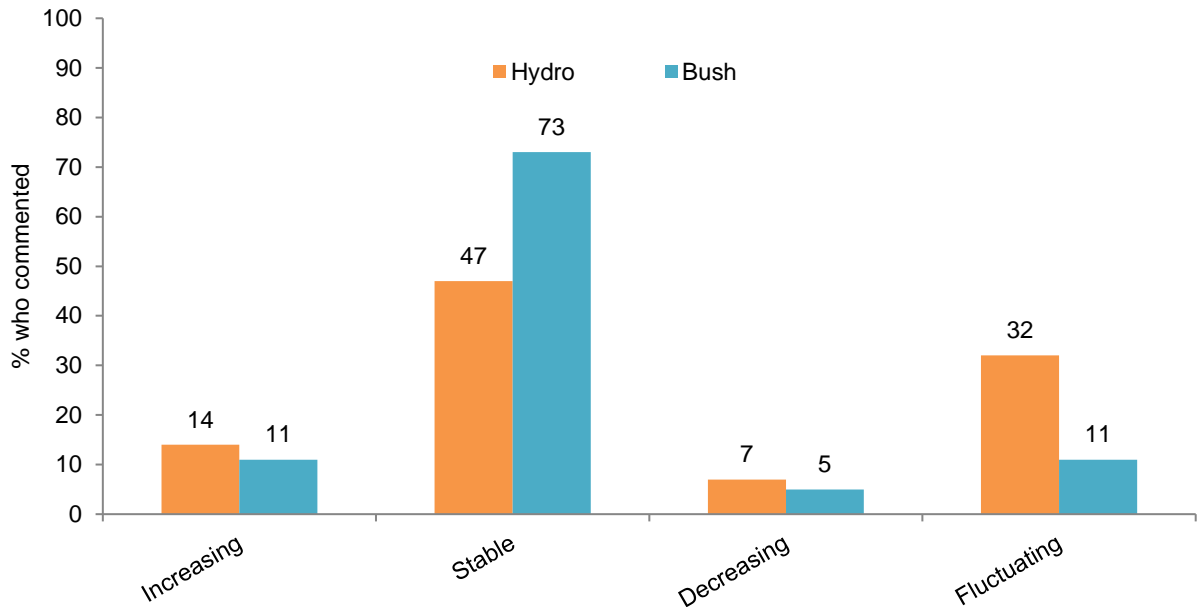
Figure 41: EDRS participants' reports of current potency of hydro and bush cannabis*, NT



Source: EDRS participant interviews 2017
 *'Don't know' responses removed from analyses
 †Of those who commented (n=57 for hydro, n=42 for bush)

Participants were asked to comment on changes in the potency of cannabis over the preceding six months (Figure 42). The majority of participants reported that hydro potency had either remained stable (47%) or fluctuated (32%) over the past six months. For bush potency, participants in 2017 reported that it had remained stable (73%), which was in keeping with 2016 findings.

Figure 42: EDRS participants' reports of change in potency of hydro and bush cannabis over the last six months*, NT



Source: EDRS participant interviews 2017

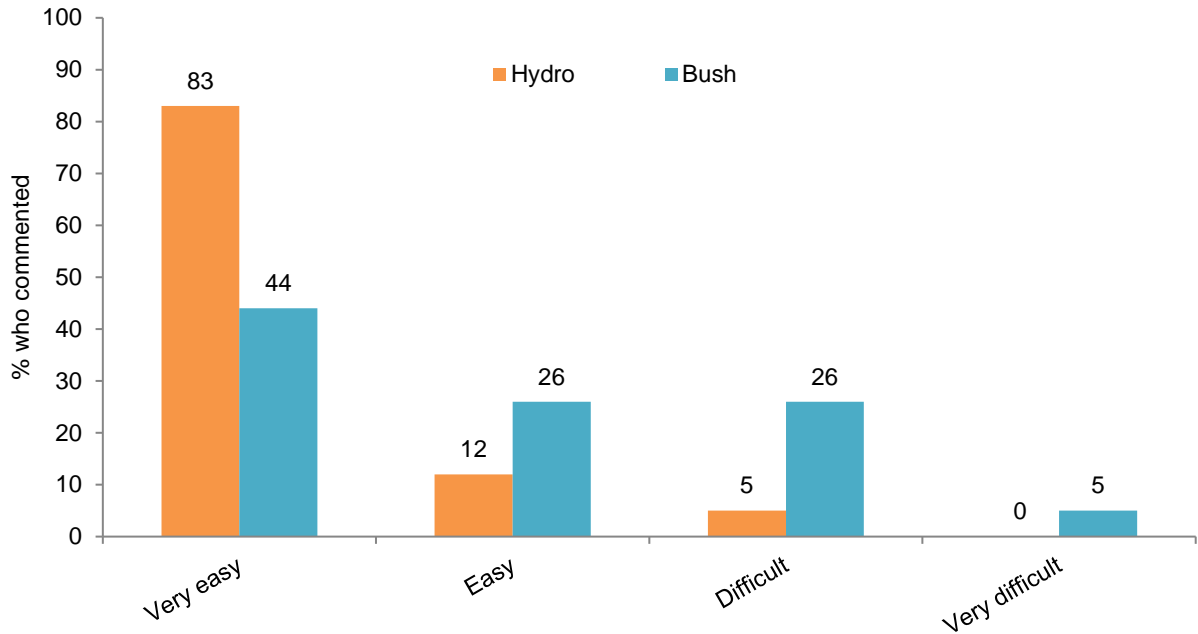
*'Don't know' responses removed from analyses

* Of those who commented (n=57 for hydro, n=37 for bush)

5.7.3 Availability

Figure 43 presents data on how the EDRS participants reported current availability of hydro and bush. Almost all respondents believed that hydro was currently 'very easy' (83%) or 'easy' (12%) to obtain. Similarly, but not to the same extent as hydro, the majority of respondents reported that bush was 'very easy' (44%) or 'easy' (26%) to obtain in Darwin.

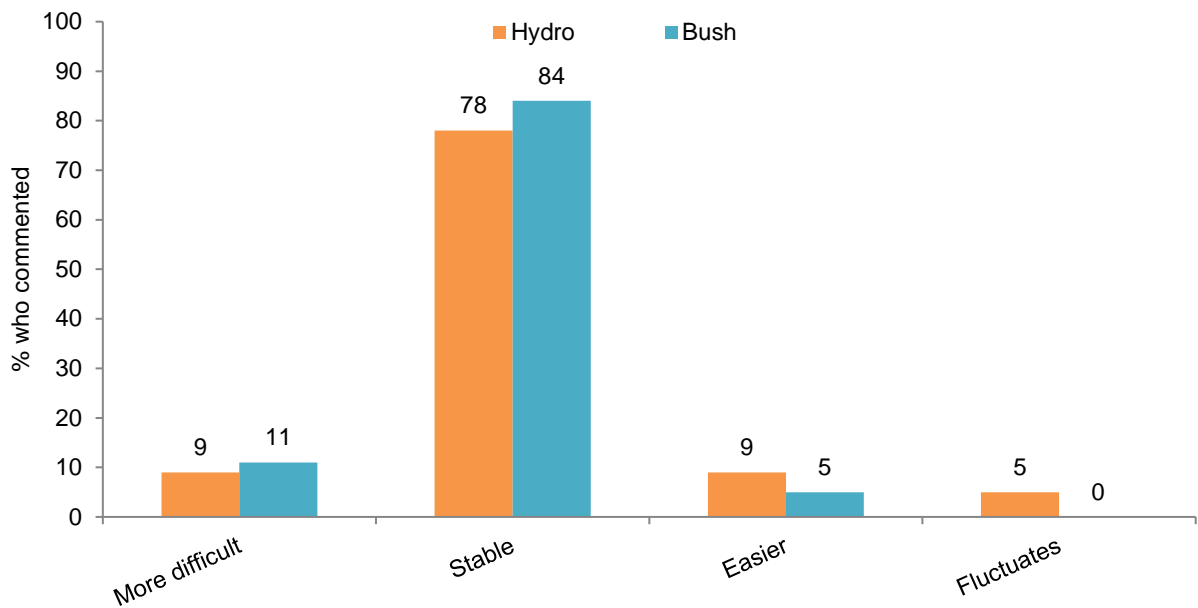
Figure 43: EDRS participants' reports of current availability of hydro and bush cannabis*, NT



Source: EDRS participant interviews 2017
 *'Don't know' responses removed from analyses
 * Of those who commented (n=57 for hydro, n=39 for bush)

The majority of those who commented reported that the availability of both hydro and bush had remained stable over the preceding six months (78% and 84% respectively) (Figure 44). These trends have remained similar to 2016 findings.

Figure 44: EDRS participants' reports of change in availability of hydro and bush cannabis over the last six months*, NT



Source: EDRS participant interviews 2017
Note: 'Don't know' responses removed from analyses
 * Of those who commented (n=58 for hydro, n=38 for bush)

6 HEALTH-RELATED TRENDS ASSOCIATED WITH DRUG USE

Summary:

Overdose

- One-third (33%) of the sample reported having overdosed on a stimulant drug and nearly a fifth (18%) reported a depressant drug overdose in the 12 months preceding interview.
- Significantly more participants reported that they contributed their most recent stimulant overdose to ecstasy in 2017 compared to 2016 (72% vs. 33%; $p<0.05$).

Health service usage

- Three-quarters of the sample (79%) reported accessing a health service in the past six months, mostly commonly a GP.
- A fifth of the sample (18%) reported accessing a health service in the past six months related to drug and alcohol use.

Mental health

- Two-fifths had recently experienced a mental health problem, of which 63% had sought help from a health professional.
- Participants completed the K10. Levels of distress among the sample were higher than Australian general population rates, and over time there has appeared to be increasing levels of distress among NT participants.

6.1 OVERDOSE

Participants were asked if they had ever overdosed on a stimulant drug or a depressant drug. In both instances, 'overdose' was defined as presenting with symptoms consistent with either stimulant toxicity (e.g. nausea and vomiting, chest pains, tremors, increased body temperature or heart rate, seizure, extreme paranoia, anxiety, panic or agitation, hallucinations, excited delirium) or symptoms consistent with a depressant overdose (e.g. reduced level of consciousness, respiratory depression, turning blue, collapsing). The following sections are based on participants' understanding of these definitions and their opinions as to whether they had overdosed.

6.1.1 Stimulant overdose

Approximately two-fifths (42%) reported having overdosed on a stimulant drug throughout their lifetime. Participants reported having experienced a median of two overdoses (range=1–20).

Twenty-eight participants (33%) reported having overdosed on a stimulant drug within the preceding 12 months. The participants who had recently overdosed (i.e. within the last year) were asked to identify the main drug to which they attributed their last overdose, and other combined drugs. Significantly more participants (72%) reported that they contributed the most recent overdose to ecstasy as the main drug in 2017 compared to 2016 (33%; $p<0.05$). Other drugs that were used in combination with the main attributed drug to the overdose were alcohol (81%) and cannabis (52%). These overdoses most commonly occurred within private settings, including at a friend's home (24%), at their own home (20%) and also at public settings such as nightclubs (20%). Less than half of the participants who overdosed reported that a sober person was present to assist them (48%)

Of the participants who overdosed within the preceding year, the most severe symptoms reported included vomiting (n=5), increased heart rate (n=4), paranoia (n=3) and visual hallucination (n=3). The majority of these participants (67%) did not receive any immediate treatment on the last occasion of stimulant overdose. The remaining participants reported that they were either monitored by friends, attended to by ambulance, or attended a hospital emergency department.

6.1.2 Depressant overdose

Twenty-five participants (29%) of the 2017 sample reported having ever overdosed on a depressant drug. Those who had overdosed reported having done so on a median of five occasions (range=1–40). Fifteen participants (18%) reported having overdosed on a depressant drug within the year preceding the interview. Of those who reported to have overdosed on a depressant drug, nearly all participants (85%) reported alcohol as the main drug that contributed to their most recent depressant overdose. One participant attributed the overdose to benzodiazepines.

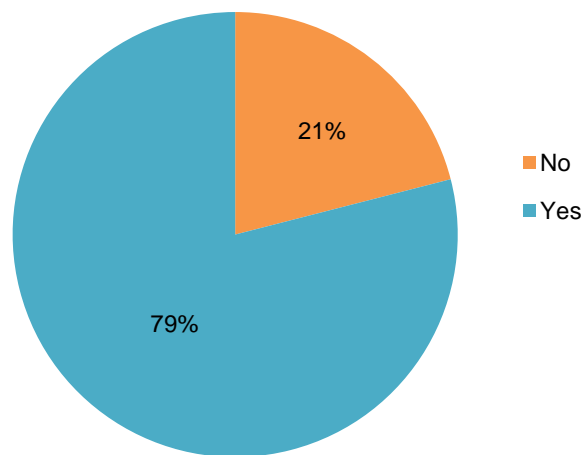
Thirteen participants answered on where they were when they last overdosed within the past 12 months. Most participants reported being at friend's home (n=4) and nightclubs (n=3). Four participants reported that there had been a sober person present at the time of overdose who was able to assist them (31%).

Participants reported that the most severe symptom of their depressant overdoses were either vomiting (n=6), losing consciousness (n=3) or suppressed breathing (n=1). Five of the 13 participants who had recently experienced a depressant overdose reported that they received some form of formal treatment or care on the last occasion, including being attended to an ambulance, attended a hospital emergency department or were monitored by friends.

6.2 HELP-SEEKING BEHAVIOUR

To ascertain whether participants had any contact with health professionals, participants were asked whether they had been to any health services for any reason in the preceding six months (Figure 45). The majority of the sample (79%) reported accessing a health service in the past six months. Of these participants, the most common health professional these participants reported consulting during this time was a GP (64%). Eighteen percent of the sample reported to have accessed a health professional related to drug and alcohol use. Of these, ten participants reported to have seen a GP and five reported to have visited a drug and alcohol counsellor.

Figure 45: Percentage of EDRS participants who recently accessed a medical or health service, NT



Source: EDRS participant interviews 2017

EDRS participants were asked whether they had thought about contacting any services or health professionals for reasons relating to their drug use, but failed to do so. Of those who answered (n=80), eighteen participants (23%) reported that they had thought about it but had not contacted any services of health professionals.

6.3 MENTAL HEALTH AND PSYCHOLOGICAL DISTRESS

6.3.1 Self-reported mental health

Participants were asked whether they had experienced any mental health problems over the previous six months (Table 20). Two-fifths (41%) had recently experienced a mental health problem, which is higher than that recorded among the general population of a similar age range (16-24 years (26%) and 25-34 years (25%) (Australian Bureau of Statistics, 2007). Mood disorders were those most commonly reported (depression 69%; anxiety 83%). Two-thirds (63%) of those who experienced a mental health problem sought assistance from a health professional, and over half (55%) of them had been prescribed medication (most commonly antidepressants).

Table 20: Mental health problems among EDRS participants, NT

	2009 (N=67)	2013 (N=45)	2014 (N=99)	2015 (N=99)	2016 (N=99)	2017 (N=85)
Any mental health problem recently (%)	21	9	20	20	33	41
<i>Of these (%):</i>						
Depression	86	100	70	80	55	69
Anxiety	43	25	60	70	70	83
Panic	14	25	0	20	0	9
Bipolar Disorder	–	50	0	0	9	0
Mania	14	0	0	0	0	0
Paranoia	7	0	0	25	0	6
Personality Disorder	–	0	0	0	0	0
Schizophrenia	–	0	0	0	0	3
Drug-Induced Psychosis	7	0	0	0	3	6
Obsessive Compulsive Disorder	7	25	5	10	6	3
Sought help from health professional^ (%)	43	75	70	50	55	63
Prescribed medication^ (%)	36	67	40	20	36	55

Source: EDRS participant interviews 2009, 2013, 2014, 2015, 2016, 2017

^ Percentage of those who had recently experienced a mental health problem

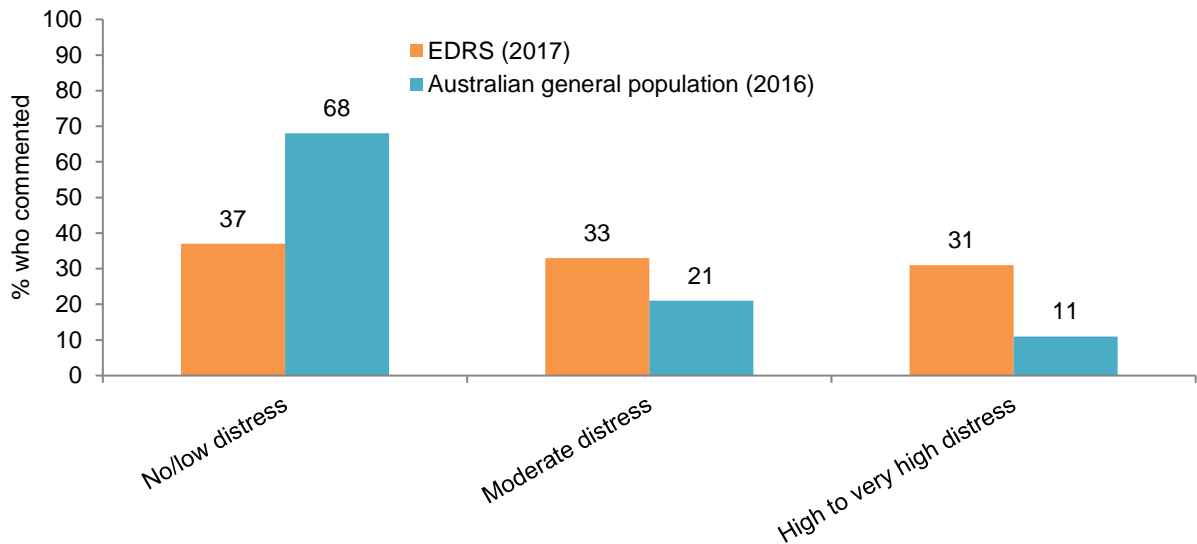
6.3.2 Kessler Psychological Distress Scale (K10)

From 2006, the EDRS has included the 10-item Kessler Psychological Distress Scale (K10) (Kessler, Andrews et al. 2002), which is a questionnaire designed to measure the level of distress and severity associated with psychological symptoms in population surveys. The minimum score is 10 and the maximum is 50. Scores ranging from 10-15 are classified as 'no/low distress', 16–21 'moderate distress', and 22–50 'high to very high distress' (Australian Institute of Health and Welfare 2017).

The median score for participants was 17 (range=10–40). One-third of participants' scores fell into the 'no/low distress' (37%) category. The remaining participants displayed distress to some degree, including 'moderate distress' (33%) or 'high to very high distress' (31%) (Figure 46).

Figure 46 presents the EDRS participants' and general Australian population scores across these three categories. There are higher percentage of EDRS participants in the 'moderate' and 'high to very high' categories compared to the Australian general population.

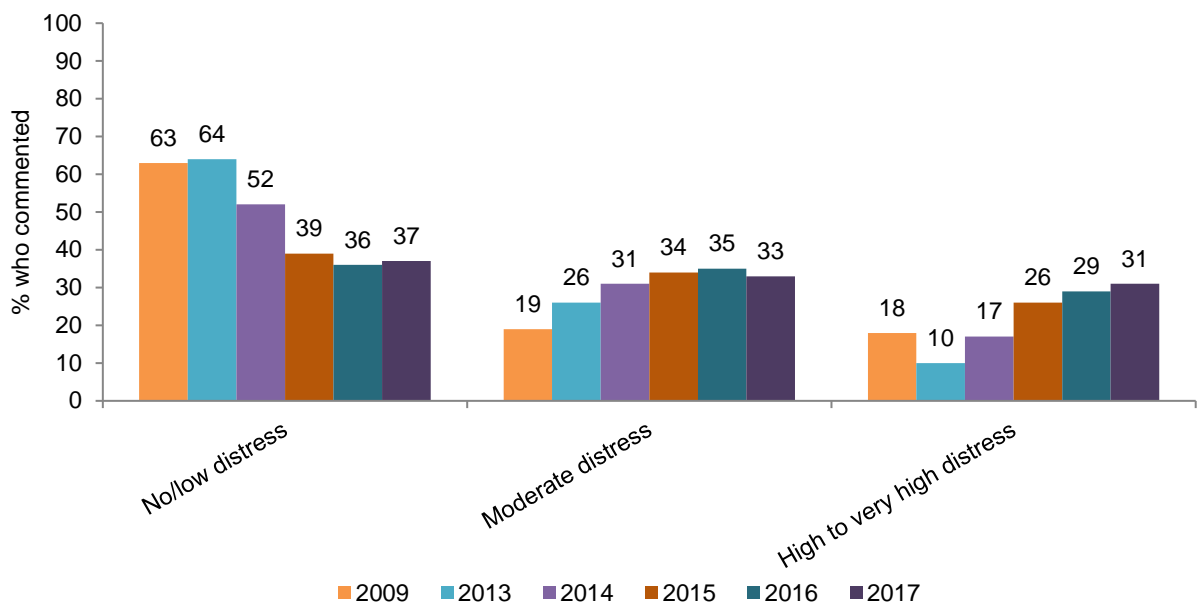
Figure 46: K10 scores for EDRS participants compared with the general Australian population, NT



Source: EDRS participant interviews 2017; Australian Institute of Health and Welfare (2017)

Figure 47 presents data across time on the percentage of each sample from 2009 to 2017 that fell into each distress category. There appears to be an increasing trend in the percentage of respondents scoring some degree of distress over time.

Figure 47: K10 scores across time for EDRS participants, NT



Source: EDRS participant interviews 2009, 2013, 2014, 2015, 2016, 2017

7 RISK BEHAVIOURS

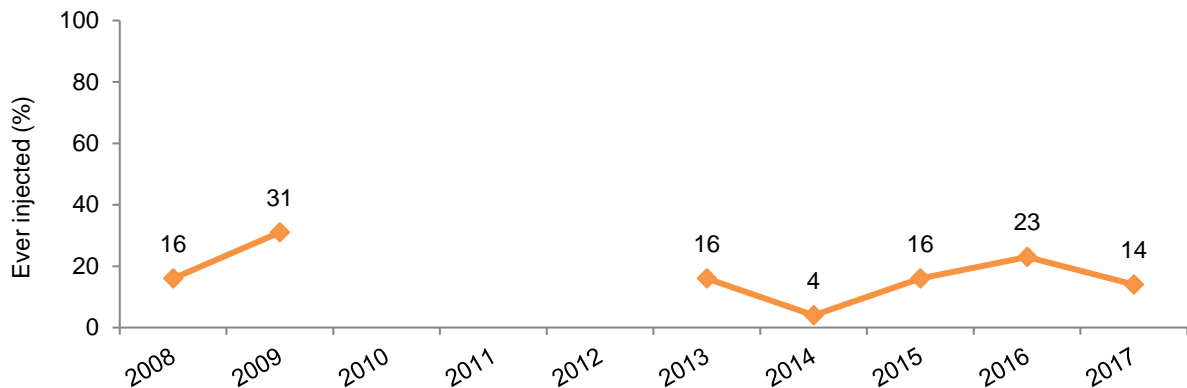
Summary:

- Twelve participants (14%) reported to have injected a drug at least once in their lifetime and three participants (4%) had done so in the past month.
- The majority of the sample (75%) had recently had penetrative sex with a casual partner. A higher percentage of the sample reportedly used a protective sexual barrier when they were sober (58%) than when they were last under the influence of drugs or alcohol (48%).
- Of the 75 participants who had driven in the past six months, over half had driven over the perceived legal alcohol limit (52%) or after taking an illicit drug (71%).
- Participants completed the Alcohol Use Disorders Identification Test (AUDIT) and the majority (88%) of the group fell in the 'harmful drinking' range.

7.1 INJECTING RISK BEHAVIOUR

Fourteen percent (n=12) of the NT EDRS participants had ever injected a drug (Figure 48). Four percent of the sample reported having injected within the past month.

Figure 48: Lifetime injecting among EDRS participants, NT



Source: EDRS participant interviews 2008, 2009, 2013, 2014, 2015, 2016, 2017

Participants who had injected a drug in the month prior to the interview (n=3) reported the median age of initiation as 21 years (range=18–26) and all reported their first drug of injection was methamphetamine (n=2 for crystal and n=1 for speed).

In the past month, no participants reported to have shared any equipment or injected a partner or a friend after injecting themselves. None of the NT EDRS sample reported that somebody else had injected them after they injected themselves.

7.2 SEXUAL RISK BEHAVIOUR

Participants were asked questions about their recent sexual activity, particularly with regards to penetrative sex. This was defined as ‘penetration by penis or hand of the vagina or anus’. Given the sensitive nature of these questions, participants were given the option of self-completing this section of the questionnaire.

The majority (75%) of the sample reported having had penetrative sex with at least one casual partner (i.e. someone who was not a regular partner) over the preceding six months. Of those who reported penetrative sex with a casual partner, the vast majority (88%) reported having done so while under the influence of alcohol or drugs (Table 21). The drugs most commonly used were alcohol, ecstasy, cannabis, cocaine and crystal methamphetamine.

Table 21: Trends in sexual activity with casual partners in the past six months among EDRS participants, NT

	2009 (N=67)	2013 (N=43)	2014 (N=99)	2015 (N=100)	2016 (N=100)	2017 (N=85)
Casual penetrative sex (%)	60	70	72	80	67	75
<i>No. of sexual partners (%)</i>						
1 person	28	7	14	10	14	25
2 people	22	12	19	21	12	13
3–5 people	22	26	42	27	27	24
6–10 people	15	21	14	13	5	6
10+ people	11	5	11	9	9	8
Penetrative sex with casual partner while on drugs*	72	84	82	96	90	88
<i>Drugs used^ (%)</i>						
Alcohol	56	35	75	86	90	84
Ecstasy	88	62	44	53	50	54
Cannabis	18	42	32	51	45	45
Cocaine	0	19	5	13	17	16
Crystal methamphetamine	6	12	17	19	13	18
LSD	0	12	9	4	7	2
Speed	21	8	9	9	7	0
GHB	0	0	2	3	5	2
Ketamine	0	4	0	5	5	0
MDA	0	0	7	0	0	0
Mushrooms	0	0	2	0	0	0
Base	6	0	0	0	0	0

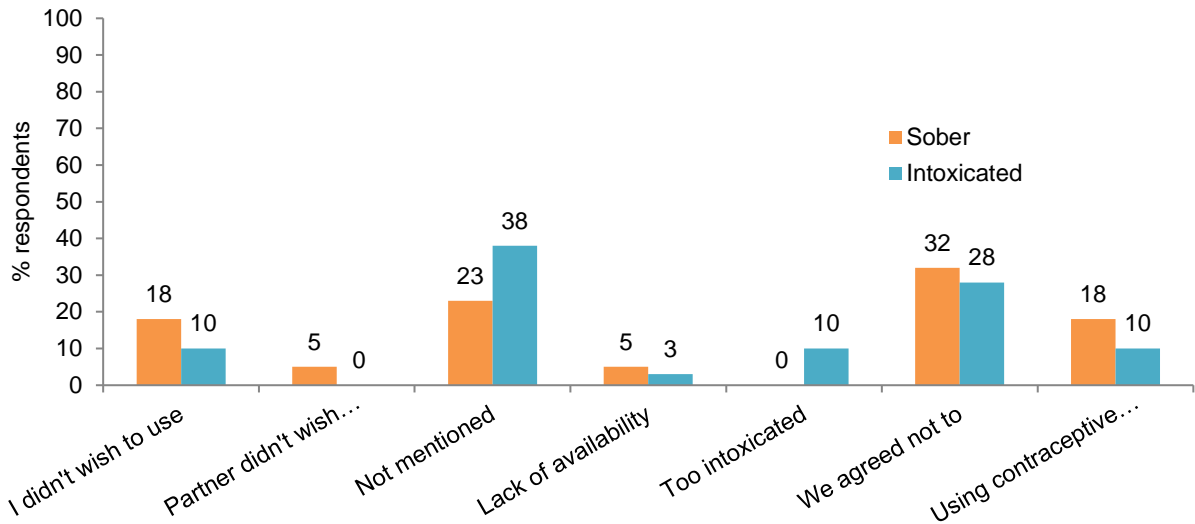
Source: EDRS participant interviews 2009, 2013, 2014, 2015, 2016, 2017

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

^Among those who had had penetrative sex with a casual partner while on drugs

Participants were also asked whether they had used a protective sexual barrier the last time they had penetrative sex with a casual partner. A higher percentage of the sample reportedly used a protective sexual barrier when they were sober (58%) than when they were last under the influence of drugs or alcohol (48%). The major reasons for not using protection were either that they agreed not to use a protective sexual barrier or it was not mentioned (Figure 49).

Figure 49: Reasons for not using protective barriers among EDRS participants, NT



Source: EDRS participant interviews 2017

Lastly, participants were asked about their sexual health check-up history. Two-thirds of the sample (62%) reported having a sexual health check-up in the prior year, and 23% reported that they had never had a sexual health check-up. In total, 17% of the sample had been diagnosed with a sexually transmitted infection (STI) in their lifetime.

7.3 DRIVING

In 2017, participants were asked a series of questions regarding driving and the use of substances (Table 22). The majority (88%) had driven a vehicle in the preceding six months. Of those who had driven, over half (52%) had done so over the legal blood alcohol limit¹⁴. Approximately three-quarters (71%) of those who had recently driven had done so after using an illicit drug.

Table 22: Drug driving in the last six months among EDRS participants, NT

	2009 (N=67)	2013 (N=45)	2015 (N=101)	2016 (N=100)	2017 (N=85)
Driven a vehicle in the past six months (%)	73	80	87	93	88
Driven over the limit of alcohol* (%)	88	54	59	56	52
Driven after taking an illicit drug* (%)	55	36	62	74	71

Source: EDRS participant interviews 2009, 2013, 2015, 2016, 2017

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

¹⁴ Participants reported according to their own perception of their blood alcohol content.

7.4 PROBLEMATIC ALCOHOL USE AMONG EDRS PARTICIPANTS

7.4.1 Alcohol Use Disorders Identification Test (AUDIT)

The Alcohol Use Disorders Identification Test (AUDIT) (Saunders, Aasland et al. 1993) was designed as a brief screening scale to identify individuals with alcohol problems, including those in the early stages. It is a 10-item scale, designed to assess three conceptual domains: alcohol intake; dependence; and adverse consequences (Reinert and Allen 2002).

Total scores of 8 or more are recommended as indicators of hazardous and harmful alcohol use, as well as possible alcohol dependence (Babor, de la Fuente et al. 1992). Higher scores indicate greater likelihood of hazardous and harmful drinking; higher scores may also reflect greater severity of alcohol problems and dependence, as well as a greater need for more intensive treatment (Babor, de la Fuente et al. 1992).

The median score on the AUDIT for the NT 2017 sample was 12 (range=0–29). The majority (88%) of EDRS participants scored in the harmful range (i.e. total score of 8 or more). No gender differences in AUDIT scores were found.

The AUDIT guidelines (Babor, Higgins-Biddle et al. 2001) indicate four ‘zones’ into which total scores on the test can be divided. In the 2017 sample, 12% scored in zone 1 (low risk drinking or abstinence), over half of the sample (55%) scored in zone 2 (alcohol in excess of low-risk guidelines), one-fifth (17%) scored in zone 3 (harmful or hazardous drinking) and the remaining sixteen percent scored in zone 4 (possible alcohol dependence – may be referred for evaluation and possible treatment).

8 LAW ENFORCEMENT-RELATED TRENDS ASSOCIATED WITH REGULAR STIMULANT USE

Summary:

- Eleven participants (13%) had been arrested over the past year.
- Over one-third of the sample (37%) had committed a crime within the past month; most commonly drug dealing (30%).
- Four percent of the sample reported a prison history in their lifetime.

8.1 REPORTS OF CRIMINAL ACTIVITY AMONG EDRS PARTICIPANTS

Thirteen percent of EDRS participants interviewed in 2017 had reportedly been arrested over the preceding 12 months. These arrests were for several offences, including violent crime (46%), alcohol and driving (27%), public order (18%), property crime (18%), use/possession of weapons (9%) and use/possession of drugs (9%). Table 23 presents data across time on prison history, self-reported criminal activity and arrests among samples of EDRS participants. Levels of criminal activity in the month preceding the interview remained relatively stable in 2017.

Table 23: Criminal activity reported by EDRS participants, NT

	2009 (N=67)	2013 (N=45)	2014 (N=100)	2015 (N=99)	2016 (N=100)	2017 (N=85)
<i>Any crime past month (%)</i> :	33	13	30	32	36	37
Drug dealing	31	7	19	26	32	30
Property crime	3	7	10	11	8	8
Fraud	0	2	0	1	2	1
Violent crime	5	2	9	6	6	7
<i>Arrested past 12 months (%)</i>	9	7	18	14	19	13
<i>Prison history (%)</i>	11	0	7	7	10	4

Source: EDRS participant interviews 2009, 2013, 2014, 2015, 2016, 2017

Twenty-five participants (30%) had dealt drugs in the month leading up to the interview. Of these, half had dealt drugs less than once a week (52%) and two participants reported dealing daily (8%). Seven EDRS participants (8%) had committed a property crime over the last month, which was mostly less than once per week (57%). Six participants (7%) reported involvement in violent crime, with the majority (67%) reporting to have done so less than once a week. One participant reported committing fraud and reported to have done so less than once a week.

9 SPECIAL TOPICS OF INTEREST

Summary:

Online purchasing patterns.

- One quarter (26%) of the NT EDRS participants reported to have purchased drugs online in their lifetime.
- A smaller subsample (15%) reported to have purchased drugs online in the last 12 months.
- The majority (67%) of those who had purchased drugs online in the last 12 months had done so through the 'dark net' marketplaces.
- The most popular drugs that were purchased online were cannabis, ecstasy and LSD.
- A small minority (12%) of NT EDRS participants had never heard about the 'dark net'.

9.1 ONLINE PURCHASING PATTERNS

In 2017, the EDRS continued to investigate and monitor the practice of purchasing drugs online among recreational drug consumers 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 cannabinoids), on the attainment 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 purchasing illicit substances.

In 2017, 26% (n=22) of NT EDRS participants reported that they had ever purchased an illicit drug online, with 15% (n=13) having done so in the previous year. The frequency of these recent purchases occurred between once and more than five times (Table 24).

Table 24: Number of times recently purchased illicit drugs online reported by EDRS participants in NT*, 2017

% How many online purchases of illicit drugs in the past 12 months:	NT (N=13)
% Once	23 (n=3)
% Twice	15 (n=2)
% 3–5 times	15 (n=2)
% More than 5 times	46 (n=6)

Source: EDRS participant interviews 2017

*Among those who had purchased illicit drugs online

Participants were asked what percentage of their drugs were purchased online. Just over half (54%, n=7) reported that less than 25% of their drugs were purchased online, and one-fifth (23%; n=3) purchased between 25–49% of their drugs online. Results are summarised in Table 25.

Table 25: What percentage of drugs were purchased online by EDRS participants in NT*, 2017

% What percentage of all purchased drugs was purchased online?	NT (N=13)
Less than 25%	54 (n=7)
Between 25% and 49%	23 (n=3)
Between 50% and 74%	8 (n=1)
Between 75% and 99%	8 (n=1)
All (100%)	8 (n=1)

Source: EDRS participant interviews 2017

*Among those who had purchased illicit drugs online

EDRS participants who had purchased drugs online (n=13) were asked if, in the past 12 months, they had purchased any substance from the internet for the purpose of supplying or selling to others. Thirty-one percent (n=4) reported that they had purchased drugs for the purpose of supplying to friends, 8% (n=1) for the purposes of selling for a profit and 15% (n=2) for both supply to friends and for profit. The remainder (46%) reported that they were not supplying to others.

Purchases of illicit drugs were primarily made from the ‘dark web’ marketplaces (67%, n=8). Other online purchasing facilities were less commonly used; Australian webstore ‘surface web’ (17%, n=2), international webstore ‘surface web’ (8%, n=1) and social networking sites / apps (8%, n=1). If participants had purchased from a dark net marketplace, they were asked to specify whether the retailer they purchased from was Australian (50%, n=4), International (25%, n=2) or both (25%, n=2).

Illicit substances recently purchased online were specified, see Table 26. Eleven participants reported buying traditional illicit substance/s online. Of these participants, most reported this was cannabis (62%) followed by ecstasy (54%) and LSD (46%). Three participants reported purchasing an NPS online, the most common being DMT (n=3).

Table 26: Illicit substances reportedly purchased online in the past year by NT participants*, 2017

Online substance purchased	NT
% Traditional illicit substances	(N=11)
Ecstasy (any form)	54 (n=7)
LSD	46 (n=6)
Cannabis	62 (n=8)
Benzodiazepines	--
Ketamine	--
Methamphetamine (any form)	--
Mushrooms	15 (n=2)
Cocaine	15 (n=2)
Pharmaceutical stimulants	--
Pharmaceutical opioids	–
% NPS illicit substances	(N=3[^])
2C-x family	--
DMT	n=3
NBOMe	–
Mephedrone	–
MXE	–
Methylone	–
5-MeO-DMT	–
Synthetic cannabinoids	–
Etizolam	–
Other	n=1

Source: EDRS participant interviews 2017

[^] small numbers interpret with caution

* Among those who had purchased illicit drugs online

All NT EDRS participants were asked about their level of knowledge of, and familiarity with, ‘dark net’ marketplaces, such as the now-closed Silk Road. Results are outlined in Table 27.

Table 27: Familiarity with the ‘dark net’ among NT participants, 2017

% Level of knowledge of the dark net	NT (N=85)
Never heard of the 'dark net'	12
Only heard of the 'dark net' online but never accessed it	46
Researched the dark net but never accessed it	7
Obtained drugs through a friend who purchased them from dark	15
Accessed dark net marketplaces but never purchased from them	8
Purchased drugs from 'dark net' market places	12

Source: EDRS participant interviews 2017

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