Northern Territory

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NORTHERN TERRITORY TRENDS IN ECSTASY AND RELATED DRUG MARKETS 2016
Findings from the Ecstasy and Related Drugs Reporting System (EDRS)

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NORTHERN TERRITORY TRENDS IN ECSTASY AND RELATED DRUG MARKETS 2016

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

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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-methyoxy-dimethyltryptamine
ACC	Australian Crime Commission
ACIC	Australian Criminal Intelligence Commission
ACPR	Australasian Centre for Policing Research
A&TSI	Aboriginal and/or Torres Strait Islander
AIHW	Australian Institute of Health and Welfare
AODTS-NMDS	Alcohol and Other Drug Treatment Services-National Minimum Data Set
ATS	amphetamine-type stimulant
AUDIT	Alcohol Use Disorders Identification Test
BBVI	blood-borne viral infections
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
IDU	injecting drug user(s)
K10	Kessler Psychological Distress Scale
KE	key expert(s)
LSD	*d*-lysergic acid diethylamide
MDA	3,4-methylenedioxyamphetamine
MDEA	3,4-methylenedioxyethylamphetamine
MDMA	3,4-methylenedioxymethamphetamine
MDPV	3,4-methylenedioxypyrovalerone; 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
PASW	Predictive Analytics Software
PDI	Party Drugs Initiative
PIED	performance and image enhancing drugs
PMA	para-methoxyamphetamine
PNS	peripheral nervous system
PWID	people who inject drugs
QLD	Queensland
REU	regular ecstasy user(s)
ROA	route of administration
RPU	regular psychostimulant user(s)
SA	South Australia
SDS	Severity of Dependence Scale
STI	sexually transmitted infection(s)
THC	delta–9–tetrahydrocannabinol
TMA	3,4,5–trimethoxyamphetamine
VIC	Victoria

GLOSSARY OF TERMS

2C-B	Street term for 4-bromo-2,5-dimethoxyphenethylamine. It is a synthetic psychedelic of moderate duration
2C-I	Street term for 2,5-dimethoxy-4-iodophenethylamine. It is a short-acting synthetic psychedelic
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)
Indicator data	Sources of secondary data used in the EDRS (see Method section for further details)
Ketamine	It is a dissociative psychedelic used as a veterinary and human anaesthetic
Key expert(s)	Also referred to as KE; persons participating in the Key Expert Survey component of the EDRS (see Method section for further details)
Licit	Licit refers to pharmaceuticals (e.g. benzodiazepines, antidepressants and opioids such as methadone, buprenorphine, morphine and oxycodone) obtained by a prescription in the user's name. This definition does not take account of 'doctor shopping' practices; however, it differentiates between prescriptions for self as opposed to pharmaceuticals bought on the street or those prescribed to a friend or partner

Lifetime injection	Injection (typically intravenous) on at least one occasion in the participant's lifetime
Lifetime use	Use on at least one occasion in the participant's lifetime via one or more of the following routes of administration: inject; smoke; snort; swallow; and/or shaft/shelve
LSD	Acronym for *d*-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
Mephedrone	Mephedrone (2-methylamino-1-p-tolylpropane-1-one), also known as 4-methylmethcathinone (4-MMC) or 4-methylephedrone, is a stimulant and entactogen drug of the phenethylamine, amphetamine, and cathinone chemical classes
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
PMA	Acronym for para-methoxyamphetamine. It is an amphetamine-type drug with both stimulant and hallucinogenic properties
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 2016 NT Trends in Ecstasy and Related Drug Markets report represents the fourteenth 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 three sources: (a) surveys with regular ecstasy users (REU) and regular psychostimulant users (RPU); (b) surveys with key experts (KE) who have contact with REU/RPU through the nature of their work; and (c) the analysis of existing data sources that contain information on ecstasy and other drugs.

REU/RPU are recruited because they are considered a sentinel group to detect illicit drug trends. The information from REU/RPU surveys is, therefore, not representative of ecstasy and other drug users 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

- 100 participants were interviewed in the 2016 NT EDRS (65 male and 35 female).
- Participants were young (mean age of 25 years), most commonly spoke English as their first language, and were Australian born.
- Most participants were heterosexual, single, living in rental accommodation and currently employed.
- One participant reported being currently in drug treatment.
- Overall, the 2015 and 2016 participants were similar in demographic composition.

Patterns of drug use

- Participants had experience with a wide range of drugs, having used an average of 12.5 different drug types during their lifetime and seven different drug types over the past six months.
- Twenty-three percent reported having ever injected a drug.

- Proportions reporting lifetime and recent use of particular substances remained stable from 2015 to 2016 with the exception that lifetime use increased for tobacco (85% to 95%) and speed (58% to 74%).
- Similar to 2015, cannabis was the main drug of choice for the majority of the 2016 sample, followed by ecstasy.
- Over half of the group had recently binged on ERD. The median number of binge episodes was three in the past six months.

Ecstasy

Consumption patterns

- Ecstasy was used on a median of 13 days over the past six months (i.e. approximately fortnightly).
- Participants had used a median of 2 pills during a 'typical' occasion of use (range=1–8).
- Swallowing was the main route of administration (ROA) (85%).
- All participants reported using other drugs in combination with ecstasy the last time they used it, most commonly tobacco, alcohol, cannabis, crystal methamphetamine and cocaine.
- Ecstasy was most commonly last used at a nightclub or at home.
- The proportion of the NT general population who reported using ecstasy within the last 12 months increased from 3.2% in 2010 to 4.3% in 2013.

Market characteristics

Pills, powder and capsules

- *Price*: $35 per pill, $38 per capsule, stable.
- *Purity*: Currently medium and fluctuating.
- *Availability*: Currently easy to very easy to obtain and stable.

MDMA crystal

- *Price*: $320 per gram, stable.
- *Purity*: Currently high and stable.
- *Availability*: Currently easy to very easy to obtain and stable.

General ecstasy market characteristic observations

- KE reported that ecstasy was easily accessible.

Methamphetamine

Consumption patterns

Speed

- A significantly greater proportion of the EDRS sample in 2016 (74%) reported lifetime use of speed than in 2015 (58%).
- One-quarter (27%) had used speed during the preceding six months.
- Speed was used on a median of 3 days over the preceding six months and was primarily snorted.

Base

- A minority of the sample had used base in their lifetime (20%) and few reported recent use (5%).
- The median age at which base was first used was 17 years (range=14–25).

Crystal methamphetamine

- Almost two-thirds (61%) had ever used crystal methamphetamine and one-third had done so recently.
- Crystal methamphetamine was used on a median of 12.5 days over the preceding six months (compared to 6 days in 2015) and was most commonly smoked.
- The quantity of use appeared to remain relatively stable in 2015.

General methamphetamine consumption observations

- Speed and crystal methamphetamine were commonly purchased from friends, with the majority of purchases taking place in private settings.
- The use of methamphetamine among the NT general population increased from 2010 (2.1%) to 2013 (2.8%). No gender differences were found.
- Most health and law enforcement KE reported that crystal methamphetamine was a significant drug of concern due to its addictive and harmful properties. KE reported that the use of crystal methamphetamine has increased over the past 12 months.

Market characteristics

Speed

- *Price*: $300 per gram and stable.
- *Purity*: Currently high and mostly stable.
- *Availability*: Currently easy to very easy to obtain, mostly stable over past six months.

Base

- Numbers too small to report.

Crystal

- *Price*: $100 per point and stable.
- *Purity*: Currently high and fluctuating.
- *Availability*: Currently very easy to obtain, stable.

General methamphetamine market characteristic observations

- KE reported price of crystal methamphetamine had remained stable, and was of a medium to high purity

Cocaine

Consumption patterns

- The majority of the sample (80%) had tried cocaine at least once, and just under half (42%) had used it recently.
- Cocaine was used on a median of 3 days (i.e. every second month) over the preceding six months.
- The frequency and the quantities of cocaine used remained stable from 2015.
- Cocaine was most commonly purchased from friends in private settings.
- Despite recent use of cocaine remaining stable in the Australian general population from 2010 to 2013, in the NT there was an increase from 0.5% to 2.4%.

Market characteristics

- *Price*: $350 per gram and mostly stable.
- *Purity*: Low to medium and fluctuating.

- *Availability*: Mixed reports on the ease of accessibility of cocaine, similar to reports in previous years.

LSD

Consumption patterns

- The majority (75%) of the sample had tried LSD at least once and one-third had used it recently.
- LSD was used on a median of 4 days over the preceding six months (every six weeks).
- LSD was most often purchased and used within private settings.

Market characteristics

- *Price*: $30 per tab and mostly stable.
- *Purity*: Currently high and fluctuating.
- *Availability*: Currently easy to very easy, and stable.

Ketamine

Consumption patterns

- Two-fifths of the sample had tried ketamine at least once and 11% had used it recently.
- Ketamine was used on a median of 1 day over the preceding six months.
- NT participants reported 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 2016.

GHB

Consumption patterns

- Compared to other illicit drugs, GHB had been used by a smaller proportion of participants in their lifetime (24%) and recently (4%).

Market characteristics

- There was no NT data reported on the price, purity or availability of GHB for 2016.

Cannabis

Consumption patterns

- The vast majority had tried cannabis at least once (98%) and the vast majority had used it recently (82%).
- There was a significant increase in frequency of use, with RPU reporting cannabis use on a median of 165 days (i.e. almost every day) over the preceding six months, which was a noticeable increase from 2015 (90 days) and 2014 (30 days).
- Almost half (46%) of recent cannabis users 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 proportion of recent cannabis users than any other jurisdiction (17.1% vs national rate of 10.2%).
- Health KE revealed that cannabis use was common and problematic among ERD users in Darwin.

Market characteristics

Hydro

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

Bush

- *Price*: $30 per gram; $400 per ounce, and stable.
- *Potency*: Currently low and stable.
- *Availability*: Currently easy to very easy to obtain and stable.
- KE reported that cannabis is readily available, and is usually supplied from interstate dealers or hydroponic grow rooms within the district.

Other drug use

Alcohol

- All participants reported lifetime use, and 94% reported recent alcohol use.
- KE reported that alcohol continued to be one of the most problematic drugs, and emphasised the strong association with mental health.

Tobacco

- The majority (95%) of the NT sample had used tobacco at least once and 87% had smoked within the past six months.
- The majority (63%) of recent tobacco users were daily smokers.

E-cigarettes

- Fifty-nine percent of the NT sample reported they had used e-cigarettes in their lifetime and 24% had used e-cigarettes recently.

Benzodiazepines

- One-third of the NT sample had recently used benzodiazepines. Illicit use was notably more common than licit use in the past six months (14% and 6% respectively).

Antidepressants

- No participants had recently used illicit antidepressants.

Inhalants

- Similar proportions reported lifetime and recent use of amyl nitrite (27%; 8%) and nitrous oxide (46%; 17%) in 2016 as 2015.

MDA

- Twenty-two percent of the NT sample reported they had used MDA in their lifetime and 7% had used MDA recently.

Heroin and other opiates

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

Mushrooms

- Half the sample reported lifetime use of mushrooms and five 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-four percent of the NT sample reported they had used OTC codeine in their lifetime, and 11% had used OTC codeine recently.

Antipsychotics

- Nine NT participants reported lifetime use of antipsychotics.

Performance and image enhancing drugs (PIED)

- Six participants reported recent use of PIEDs.

New psychoactive substance (NPS) use

- One-third reported using NPS in the last six months.
- The most common psychoactive substances used among NT EDRS participants included other synthetic cannabinoids (32%), DMT (27%) and herbal highs (18%).

Health-related harms associated with ERD use

Overdose and hospital admissions

- One-third reported having overdosed on a stimulant drug and 14% reported a depressant drug overdose throughout their lifetime.
- Rates of amphetamine-related hospital admissions in the NT in 2014/15 have mirrored the upward trend in these admissions at a national level. It should be noted that NT rates are based on small numbers.
- Rates of hospital admissions in the NT where the principal diagnosis was cannabis increased from 2013/14.

Health service usage

- Three-quarters of the sample (78%) reported accessing a health service in the past six months, mostly commonly a general practitioner (GP).
- Treatment episodes for ecstasy and cocaine have remained relatively low over time in the NT. In contrast, there were increases in numbers of presentations where amphetamine or cannabis was the principal drug of concern in 2014/15.

Mental health

- One-third had recently experienced a mental health problem, and half 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 proportions reporting high levels of psychological distress among NT RPU.

Risk behaviours

- One-quarter had ever injected a drug and six participants had done so in the past month.
- Two-thirds of the sample had recently had penetrative sex with a casual partner. A higher proportion of the sample reportedly used a protective sexual barrier when they were sober (43%) than when they were last under the influence of drugs or alcohol (23%).
- Of the 93 participants who had driven in the past six months, over half had driven over the alcohol limit or after taking an illicit drug.
- Participants completed the Alcohol Use Disorders Identification Test (AUDIT). The majority (80%) of the group fell in the 'harmful drinking' range.

Law enforcement-related trends associated with ERD use

- Nineteen participants had been arrested over the past year.
- One-third had committed a crime within the past month; most commonly drug dealing.
- In 2014/15, there were increases in the consumer and provider arrests in the NT for amphetamines. Consumer and provider arrests remained stable for cocaine, hallucinogens, cannabis and steroid use/possession.
- The majority of participants reported that half or more of their friends had used ecstasy during the previous six months.
- One-quarter of participants had perceived changes in drug use among their social group, including increased availability of different drug classes.

Special topics of interest

- NPS supply and purchasing patterns:
    - The majority of participants who had used a NPS had sourced it from a friend.
    - Sixteen NT participants reported that they had provided any NPS to others; mainly to friends for free or to share.
- NPS adverse effects:
    - Among past year NPS consumers (n=34), sixteen reported that they had experienced an unexpected adverse effect on their last occasion of use, most commonly visual hallucinations, paranoia and restlessness/anxiety.
- Video gaming and gambling
    - Fifty percent reported playing video games in the last six months, of whom 18% believed they had an issue with video gaming.
    - Two-thirds had gambled in the last six months, of whom 11% believed they had an issue with gambling.

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 2016 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 RPU in 2016 that should be highlighted. Firstly, there was a significant increase in the proportion of participants reporting lifetime use of tobacco (95%; 85% in 2015). Secondly, there was a significant increase in frequency of cannabis use, with RPU reporting cannabis use on a median of 165 days (i.e. almost every day; national average is 49 days) over the preceding six months, which was a noticeable increase from 2015 (90 days) and 2014 (30 days). Supporting both of these findings are population level data, as the NT recorded the highest proportion of daily tobacco smokers and the highest rate of cannabis users of any jurisdiction (Australian Institute of Health and Welfare, 2014).

In light of these findings, it is critical that prevention and intervention strategies that target smoking among both RPU and the general population are developed and appropriately disseminated.

Bingeing

Over half (54%) of the sample reported bingeing on ERD over the past six months. The NT recorded the highest proportion of recent bingeing behaviour across jurisdictions, with the 37% the national EDRS average. Of particular concern was the proportion of RPU 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 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 ERD users 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 2013 NDSHS continues to report that the NT has the highest proportion of people consuming 5 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 ERD users. Despite this high prevalence, only one-third reported a mental health problem, of which half 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 2016 sample had recently driven while under the influence of alcohol and/or drugs. Driving under the influence of alcohol or other drugs has been a reoccurring theme in the NT EDRS. KE identified the lack of alternative transport options in Darwin as a possible contributing factor.

Appropriate interventions to minimise this risky behaviour among RPU in the NT need to be developed.

1 INTRODUCTION

The Ecstasy and related Drugs Reporting System (EDRS) is an ongoing monitoring system funded in 2016 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, Kaye, & Darke, 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 ‘psychostimulants’ 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. Regular ecstasy users (REU) were identified as an appropriate sentinel population to investigate ERD markets, as they are likely to be aware of trends in illicit drug markets.

The EDRS involves the collection and analysis of three data components: (a) interviews with current regular recreational drug users; (b) interviews with professionals who have regular contact with REU/RPU (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. The three data sources are triangulated against each other in order to minimise the biases and weaknesses inherent in each one, ensuring that only valid emerging trends are documented.

The NT Trends in Ecstasy and Related Drug Markets 2016 provides a summary of trends from the fourteenth year of monitoring ERD markets in the Northern Territory (NT).

1.1 Aims

The aims of the 2016 NT EDRS were to:

1. Describe the demographic characteristics of a sample of current RPU users interviewed in Darwin in 2016;

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 ERD in Darwin, including locations and persons scored from and locations of use;

4. Examine participants' perceptions of the incidence and nature of ecstasy and other drug-related harms, including health-related harms, as well as financial, occupational, social and legal harms;

5. Identify emerging trends in the ERD market that may require further investigation; and

6. Compare key findings of this study (2016) with those reported in previous years.

2 METHODS

The 2016 EDRS used the methodology trialled in the feasibility study (Topp et al., 2004) to monitor trends in the markets for ERD. The three main sources of information used to document trends were:

1. Face-to-face interviews with current RPU recruited in Darwin;

2. Telephone and online interviews with KE who, through the nature of their work, have regular contact with users of ecstasy and other related drugs, or knowledge of the markets for these drugs in Darwin; and

3. Indicator data sources such as the number of illicit drug seizures, arrests and treatment services data.

These three data sources were triangulated to provide an indication of emerging trends in drug use and ecstasy and related drug markets.

2.1 Survey of REU/RPU

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 2.5% of the population aged 14 years or older reporting recent use of ecstasy in the 2013 National Drug Strategy Household Survey (Australian Institute of Health and Welfare, 2011).

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 regular user of GHB or ketamine who was not also an experienced user of ecstasy, whereas the reverse will often be the case (Topp & 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 these users 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 – regular ecstasy users (REU) (Topp & Darke, 2001). A sample of this population was successfully recruited and interviewed in the two-year feasibility trial (Topp 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 REU of meaningful size from 2010–12 (2010 N=28; 2011 N=11; 2012 N=12). Due to this difficulty, from 2012 onwards, the REU category was broadened to incorporate regular psychostimulant users (RPU) and since this time RPU have been recruited to provide information on ERD markets.

2.1.1 Recruitment

A total of 100 RPU residing in the Darwin metropolitan region were interviewed for the 2016 NT EDRS. Participants were recruited through a purposive sampling strategy (Kerlinger, 1986), which included advertisements on social media such as Facebook (78% of participants recruited) and 'snowball' procedures (22% of participants recruited) (Biernacki & Waldorf, 1981). 'Snowballing' is a means of sampling 'hidden' populations which relies on peer referral, and is widely used to access illicit drug users both in Australian (Boys, Lenton, & Norcoss, 1997; Ovendon & Loxley, 1996; Solowij, Hall, & Lee, 1992) and international studies (Dalgarno & Shewan, 1996; Forsyth, 1996; Peters, Davies, & Richardson, 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 psychostimulant use; that is, 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 users conducted by NDARC in 1997 (Topp et al., 1998; 2000), which incorporated items from a number of previous NDARC studies of users of ecstasy (Solowij et al., 1992) and powder amphetamine/methamphetamine (Darke, Cohen, Ross, Hando, & Hall, 1994; Hando & Hall, 1993; Hando, Topp, & Hall, 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 2016 (including online purchasing and NPS use).

2.1.4 Data analysis

For continuous, normally distributed variables, *t*-tests were employed and means reported. Where continuous variables were skewed, medians[1] were reported and the Mann-Whitney *U*-test, a non-parametric equivalent of the *t*-test (Siegel & Castellan, 1988), was employed. Categorical variables were analysed using chi-square analysis. The Fisher's exact test statistic was reported for analyses where there was an expected value less than 5. Analyses were conducted using Predictive Analytics Software (PASW) Statistics Version 18 (PASW, 2009).

The data collected in 2016 were compared with data collected from previous years where meaningful sample sizes were collected (2008, 2009, 2013, 2014, 2015). 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.

Differences between proportions were analysed using Newcombe-Wilson hybrid score confidence intervals without a continuity correction, based on the chi-square distribution (Tandberg, Version 1.49, available at: http://www.cebm.net/index.aspx?o=1023, see Newcombe 1998).

[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.

2.2 Survey of key experts

The main eligibility criterion for KE participation in the EDRS was regular contact with a range of ERD users in the preceding six months. Regular contact was defined as average weekly contact and/or contact with 10 or more ERD users throughout the past six months. KE were recruited through professional networks of project staff or recommendations.

A total of 11 KEs were interviewed in 2016. KE were administered a qualitative interview schedule derived from a previous study of cocaine use (Hando, Flaherty, & Rutter, 1997), with the focus dependent on the KE's area of expertise. In general, KE were interviewed on topics relating to patterns of illicit drug use among the RPU they had had contact with in the past six months. All KE completed the interview online. The responses from the interviews were analysed and sorted for recurring themes. KE were renumerated with a small gift (e.g. chocolate) for their time.

The KE interviewed for the 2016 EDRS came from a wide range of occupations which fell into two major categories: law enforcement and health care provision.

2.3 Other indicators

To complement and validate data collected from RPU surveys and KE interviews, a range of secondary data sources were examined. These included health and law enforcement data. The pilot study for the IDRS recommended that such data should be available at least annually, include 50 or more cases, be brief, and be collected in the main study site (i.e. Darwin or NT) (Hando, O'Brien, Darke, Maher, & Hall, 1997).

Data sources that have been included in this report are:

- Australian Criminal Intelligence Commission (ACIC) – number of consumer and provider arrests for illicit drug possession;
- Australian Institute of Health and Welfare (AIHW) – inpatient hospital admissions, treatment episodes, psychological distress (K10);
- National Drug Strategy Household Survey; and
- NT Police, Fire and Emergency Services – number of illicit drug seizures.

3 DEMOGRAPHICS

Summary:

- 100 participants were interviewed in the 2016 NT EDRS (65 male and 35 female).
- Participants were young (mean age of 25 years), most commonly spoke English as their first language, and were Australian born.
- Most participants were heterosexual, single, living in rental accommodation and currently employed.
- One participant reported being currently in drug treatment.
- Overall, the 2015 and 2016 participant were similar in demographic composition.

3.1 Overview of the NT EDRS sample

There were 100 participants sampled in the 2016 NT EDRS. Table 1 presents the demographics of the sample across time. The mean age of the 2016 sample was 25 years (median 24, range=17–54) and two-thirds (65%) were male. In this year's sample, the mean age of male participants was significantly higher than female participants (27 years vs. 23 years, $p<.05$).

The majority (99%) spoke English as their first language and were born in Australia (82%). Fourteen percent identified as being of Aboriginal and/or Torres Strait Islander (A&TSI) descent. Most participants identified as heterosexual (94%), 4% as bisexual and 2% as a gay male. Most participants reported being currently single (58%) and were either residing in rental accommodation (72%) or their family home (21%).

The median number of years of school education completed was 11.5 years (range=6–12), and 50% had completed high school education (Year 12 or above). The majority had completed either a trade or technical qualification (48%) or a university or college degree (20%).

Half (50%) of the sample reported being currently employed full-time, with an additional 21% working part-time or casually at the time of interview. Sixteen participants were currently unemployed, four participants were studying full-time and two participants were both working and studying. Mean weekly income for the NT EDRS sample was $1167 per week (range=$20–$8,500), and wage or salary was reported as the main source of income in the last month for the majority of participants (78%). One participant reported that they were currently in some form of drug treatment and ten participants reported a lifetime prison history.

Overall, the demographic characteristics between the 2015 and 2016 samples were similar. The only difference was in relation to income, whereby the 2016 sample reported a significantly higher mean weekly income than the 2015 sample ($920 vs. $1,167, $p<.05$).

Table 1: Demographic characteristics of EDRS participants, NT

	2008 (N=55)	2009 (N=67)	2013 (N=45)	2014 (N=100)	2015 (N=101)	2016 (N=100)
Mean age (years)	28	31	25	23	24	**25**
Male (%)	64	61	69	57	59	**65**
English-speaking background (%)	93	99	87	98	96	**99**
A&TSI (%)	13	12	0	5	7	**14**
Heterosexual (%)	64	60	91	96	92	**94**
Mean number of school years	11	11	12	11	11	**11.5**
Tertiary qualifications (%)	27	40	76	56	67	**68**
Employed full-time (%)	58	55	59	32	55	**50**
Full-time students (%)	4	5	2	0	1	**4**
Unemployed (%)	6	22	13	30	14	**16**
Mean weekly income ($) (range)	Data not collected until 2009	572 (200–1,333)	1,140 (300–3,000)	898 (50–4,346)	920 (50–2,500)	**1,167↑ (20–8,500)**
Prison history (%)	0	11	0	7	7	**10**
In drug treatment (%)	0	0	0	1	2	**1**

Source: EDRS participant interviews 2008, 2009, 2013, 2014, 2015, 2016
Note: ↑ significant increase (95% CI $p<0.05$) from 2015 to 2016; ↓ significant decrease (95% CI $p<0.05$) from 2015 to 2016.

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 an average of 12.5 different drug types during their lifetime and seven different drug types over the past six months.
- Twenty-three percent reported having ever injected a drug, six participants had injected in the past month.
- Proportions reporting lifetime and recent use of particular substances remained stable from 2015 to 2016 with the exception of lifetime use increasing for tobacco (85% to 95%) and speed (58% to 74%).
- Similarly to 2015, cannabis was the main drug of choice for the majority of the 2016 sample, followed by ecstasy.
- Over half of the group had recently binged on ERD. The median number of binge episodes was three in the past six months.

Participants were asked about their lifetime and recent use of over 20 different drug types.[2] Experience with a broad range of drugs was very common, with participants reporting use of a median of 12.5 drugs over their lifetimes and seven drug types over the past six months (Table 2). One-quarter of EDRS participants reported having ever injected a drug and six 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’.

[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 presents the proportion of EDRS participants reporting lifetime and recent drug use across time. Two notable differences from 2015 to 2016 were significant increases in the proportion of participants reporting lifetime use of tobacco (85% to 95%) and speed (58% to 74%).

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 2016, the drug of choice among the largest proportion of NT participants was cannabis (33%), followed by ecstasy (22%), cocaine (13%), and alcohol (12%). Smaller proportions of the sample nominated crystal methamphetamine (7%), LSD (6%) and speed (3%) 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 (45%), alcohol (30%) or ecstasy (14%). However, those participants who reported a discrepancy between their drug of choice and drug used most often attributed this to the factors of availability (32%), price (23%) or impact on daily functioning (21%).

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

	2008 (N=55)	2009 (N=67)	2013 (N=45)	2014 (N=100)	2015 (N=101)	2016 (N=100)
Median no. drug types ever used	6	8	9	9	11	**12.5**
Median no. drug types used last 6 months	3	5	5	6	8	**7**
Ever injected any drug (%)	16	31	16	4	16	**23**
Alcohol						
ever used (%)	98	100	98	99	99	**100**
used last 6 months (%)	87	90	96	96	97	**94**
Cannabis						
ever used (%)	93	93	98	97	92	**98**
used last 6 months (%)	40	60	71	84	82	**82**
Tobacco						
ever used (%)	73	88	76	75	85	**95↑**
used last 6 months (%)	40	65	58	68	79	**87**
Cocaine						
ever used (%)	36	52	64	64	72	**80**
used last 6 months (%)	2	23	33	39	52	**42**
LSD						
ever used (%)	60	47	64	63	64	**75**
used last 6 months (%)	16	10	40	43	32	**32**
Methamphetamine powder (speed)						
ever used (%)	67	82	53	58	58	**74↑**
used last 6 months (%)	24	61	33	39	31	**27**
Methamphetamine crystal (ice)						
ever used (%)	18	28	36	39	48	**61**
used last 6 months (%)	0	15	20	27	36	**32**
Methamphetamine base						
ever used (%)	35	52	7	11	19	**20**
used last 6 months (%)	9	28	2	5	3	**5**
Ketamine						
ever used %	6	13	40	37	42	**37**
used last 6 months (%)	0	0	9	15	18	**11**

Note: ↑ significant increase (95% CI $p<0.05$) from 2015 to 2016; ↓ significant decrease (95% CI $p<0.05$) from 2015 to 2016.

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

	2008 (N=55)	2009 (N=67)	2013 (N=45)	2014 (N=100)	2015 (N=101)	2016 (N=100)
MDA						
ever used (%)	15	19	16	20	21	**22**
used last 6 months (%)	2	5	4	13	10	**7**
GHB						
ever used (%)	6	13	13	10	15	**24**
used last 6 months (%)	0	0	2	2	3	**4**
Mushrooms						
ever used (%)	33	45	44	45	51	**52**
used last 6 months (%)	2	3	13	11	12	**5**
Benzodiazepines[a]						
ever used (%)	16	12	31	40	32	**35**
used last 6 months (%)	2	3	11	17	21	**20**
Pharmaceutical stimulants[a]						
ever used (%)	23	22	18	33	36	**40**
used last 6 months (%)	8	6	2	13	16	**15**
Nitrous oxide						
ever used (%)	13	15	27	23	33	**46**
used last 6 months (%)	2	2	9	10	13	**17**
Amyl nitrite						
ever used (%)	29	33	29	21	31	**27**
used last 6 months (%)	4	22	11	6	8	**8**
Antidepressants[b]						
ever used (%)	15	6	13	20	13	**5**
used last 6 months (%)	0	3	2	7	3	**2**
Heroin						
ever used (%)	7	10	11	4	8	**15**
used last 6 months (%)	0	2	0	1	2	**0**
Methadone						
ever used (%)	0	6	0	1	3	**3**
used last 6 months (%)	–	3	–	0	0	**1**

Note: ↑ significant increase (95% CI $p<0.05$) from 2015 to 2016; ↓ significant decrease (95% CI $p<0.05$) from 2015 to 2016.

[a] Includes licitly and illicitly obtained.

[b] 2016 data captures illicit use only. Prior years captured both licit and illicit use.

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

	2008 (N=55)	2009 (N=67)	2013 (N=45)	2014 (N=100)	2015 (N=101)	2016 (N=100)
Buprenorphine						
ever used (%)	0	3	0	2	0	**3**
used last 6 months (%)	–	2	–	0	0	**1**
Other opiates[a]						
ever used (%)	7	9	16	14	15	**24**
used last 6 months (%)	0	5	2	3	5	**10**
OTC codeine	Data not collected until 2009					
ever used (%)		33	16	13	17	**24**
used last 6 months (%)		25	4	5	16	**11**
OTC stimulants[c]	Data not collected until 2009					
ever used (%)		49	9	11	7	**13**
used last 6 months (%)		19	2	5	4	**6**
Antipsychotics[a]	Data not collected until 2010					
ever used (%)			4	2	4	**9**
used last 6 months (%)			2	1	2	**3**
Steroids[d]	Data not collected until 2010					
ever used (%)			7	4	8	**12**
used last 6 months (%)			0	4	2	**6**
E-cigarettes	Data not collected until 2014					
ever used (%)				47	46	**59**
used last 6 months (%)				27	27	**24**

Source: EDRS participant interviews 2008, 2009, 2013, 2014, 2015, 2016
Note: OTC (over the counter). ↑ significant increase (95% CI $p<0.05$) from 2015 to 2016; ↓ significant decrease (95% CI $p<0.05$) from 2015 to 2016.
[a] Includes licitly and illicitly obtained.
[b] 2016 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. Sixteen percent had used ERD monthly, one-quarter (26%) had used it fortnightly, one-third (34%) had used ERD weekly and 18% had used ERD more than once a week. Four percent of the sample reported that they had not used ERD in the past month.

Over half (54%) of the sample reported bingeing on ERD over the past six months. Bingeing is defined as using the drug on a continuous basis for 48 hours or more without sleep (Ovendon & Loxley, 1996). Participants who had binged had done so on a median of 3 occasions over the preceding six months (range=1–150). The median length of the longest binge was 72 hours (range=48–200). Among those who had recently binged, the majority had used tobacco (82%), more than five standard drinks of alcohol (69%), ecstasy (65%) and cannabis (65%) during a binge session. Other drugs used during binge sessions included crystal methamphetamine (43%), cocaine (32%), speed (26%), LSD (20%), energy drinks (15%), ketamine (7%), MDA (6%), nitrous oxide (4%), pharmaceutical stimulants (2%), and GHB (2%).

4.2 Ecstasy use

Summary:

- Ecstasy was used on a median of 13 days over the past six months (i.e. approximately fortnightly).
- Participants had used a median of 2 pills during a 'typical' occasion of use (range=1–8).
- Swallowing was the main route of administration (85%).
- All participants reported using other drugs in combination with ecstasy the last time they used it, most commonly tobacco, alcohol, cannabis, crystal methamphetamine and cocaine.
- Ecstasy was most commonly last used at a nightclub or at home.
- The proportion of the NT general population who reported using ecstasy within the last 12 months increased from 3.2% in 2010 to 4.3% in 2013.

'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). Most participants (91%) reported having used ecstasy pills ('pills') during the preceding six months. Approximately two-fifths (43%) reported having ever used ecstasy powder and one-quarter had done so recently (22%). Three-quarters (74%) reported having ever used ecstasy capsules ('caps') and 44% had used them over the preceding six months. The majority (71%) reported having used MDMA crystals in their lifetime, and 43% had used these recently. Pills were first used at a mean age of 18 years (range=13–37), powder at 19 years (range=15–25), caps at 20 years (range=6–44), and MDMA crystals at 20 years (range=15–38).

Of the sample, 97% reported they had recently used ecstasy. Ecstasy was used on a median of 13 days (range=2–100) over the preceding six months. The majority (74%) of respondents commonly used more than one pill during a session. EDRS participants had used a median of 2 pills during a 'typical' occasion of use (range=1–8) over the preceding six months. The median number of pills consumed in the 'heaviest' session over the preceding six months was 4 (range=.1–18). Swallowing (85%) and snorting (43%) were the primary methods of administration reported for recent ecstasy pill use, with small minorities reporting shelving/shafting (4%) and smoking (1%).

Table 3: Patterns of ecstasy use among EDRS participants, NT

	2008 (N=55)	2009 (N=67)	2013 (N=43)	2014 (N=100)	2015 (N=101)	2016 (N=100)
Mean age first used ecstasy (years)	21	23	18	17	18	**18**
Ecstasy 'favourite' drug (%)	44	37	7	33	19	**22**
Median days used ecstasy last 6 months	15	12	8.5	12	15	**13**
Use ecstasy weekly or more (%)	20	22	17	33	26	**20**
Median ecstasy pills in 'typical' session	2	2	2	2	2	**2**
Typically use >1 pill (%)	70	74	63	64	76	**74**
Recently binged on ecstasy (%)	58	37	22	56	40	**35**
Ever injected ecstasy (%)	9	19	0	1	1	**0**

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

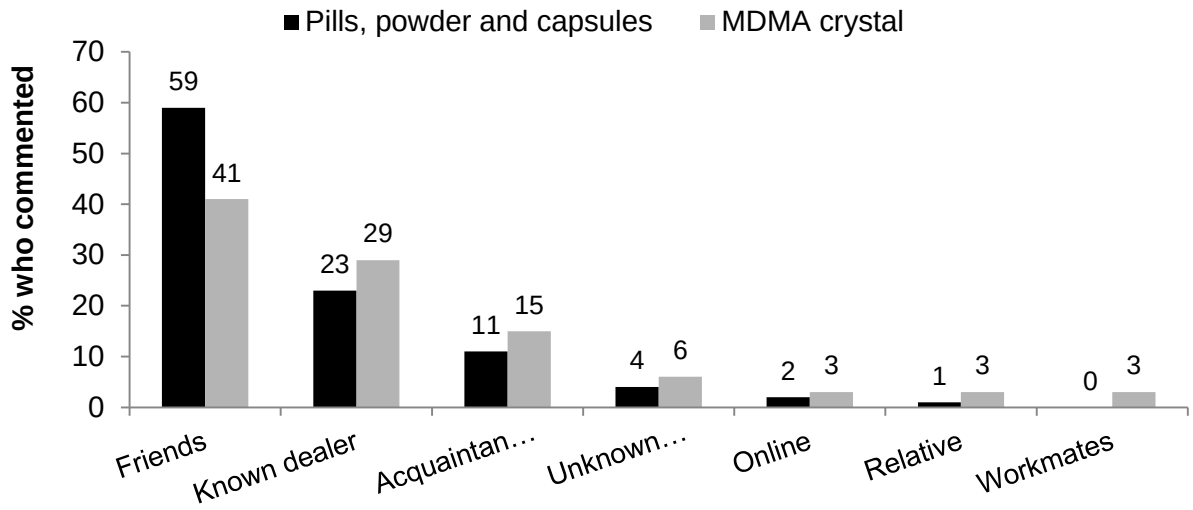
All EDRS participants (100%) reported using other drugs in combination with ecstasy the last time they used it. The drugs most commonly used with ecstasy were tobacco (71%), alcohol (67% of those who reported last using other drugs with ecstasy had more than five standard alcoholic drinks), cannabis (59%), crystal methamphetamine (19%), cocaine (13%), LSD (10%), energy drinks (9%), and speed (5%).

Half of the group reported that most (39%) or all (10%) of their friends had used ecstasy over the last six months. One-third (30%) reported that 'about half' and 21% 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, the majority of these groups last purchased these forms of ecstasy from friends (59%; 41%), followed by a known dealer (23%; 29%) (Figure 1).

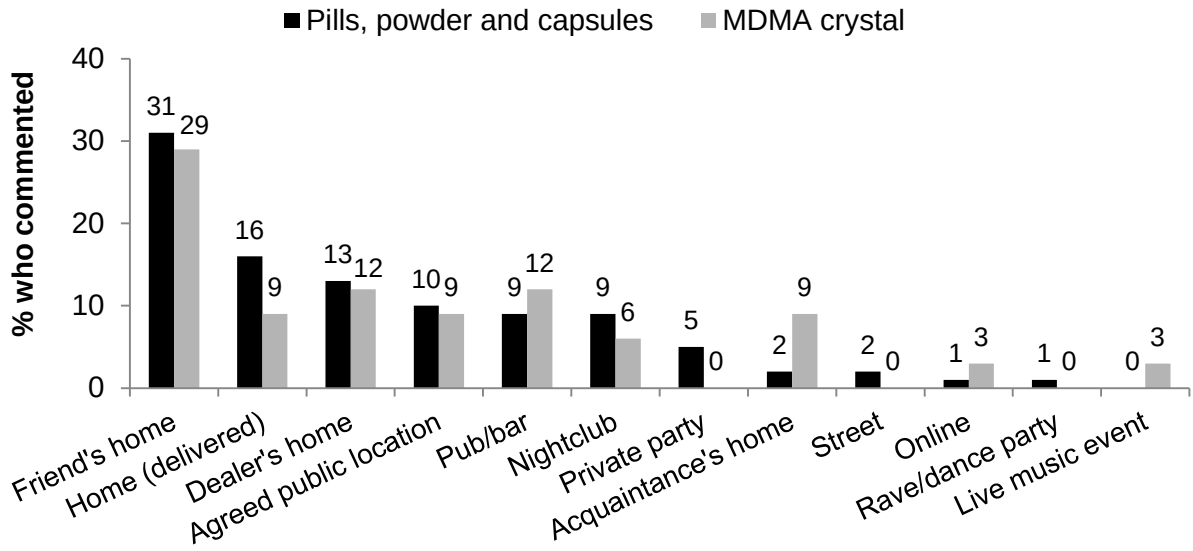
Figure 1: Last source ecstasy was purchased from among EDRS participants*, NT



Source: EDRS participant interviews 2016
* Pills, powder and capsules n=93; MDMA crystal n=34.

Participants reported last purchasing ecstasy pills, powder and capsules, and MDMA crystal at mostly private settings. The most common locations reported were a friend's home (31%; 29%), home delivered (16%; 9%), or the dealer's home (13%; 12%).

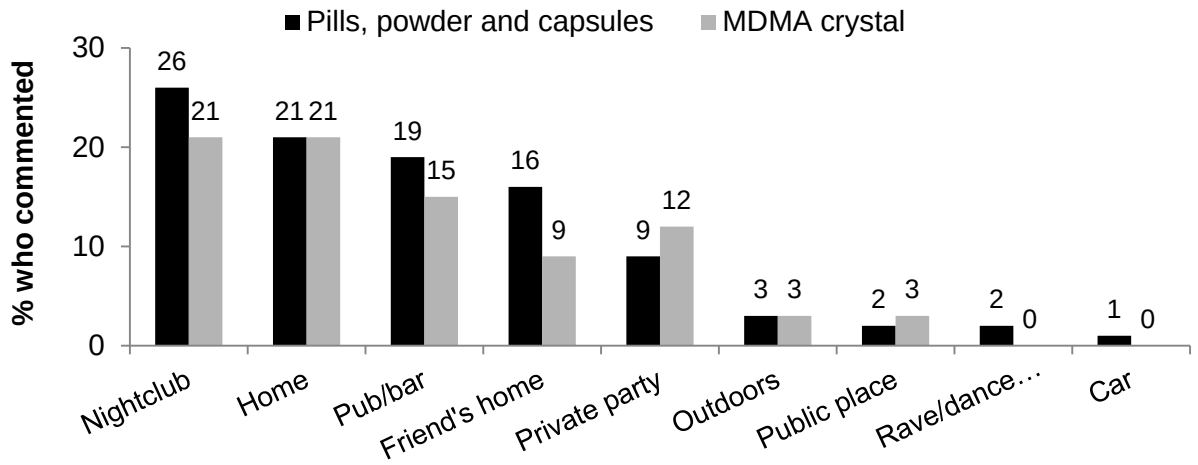
Figure 2: Last location ecstasy was purchased from among EDRS participants*, NT



Source: EDRS participant interviews 2016
* Pills, powder and capsules n=93; MDMA crystal n=34.

Participants were asked where they spent the most time while intoxicated the last time they used the different forms of ecstasy. All forms (pills, powder, capsules and MDMA crystal) were most commonly last used at a nightclub (42%; 29%) (Figure 3).

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



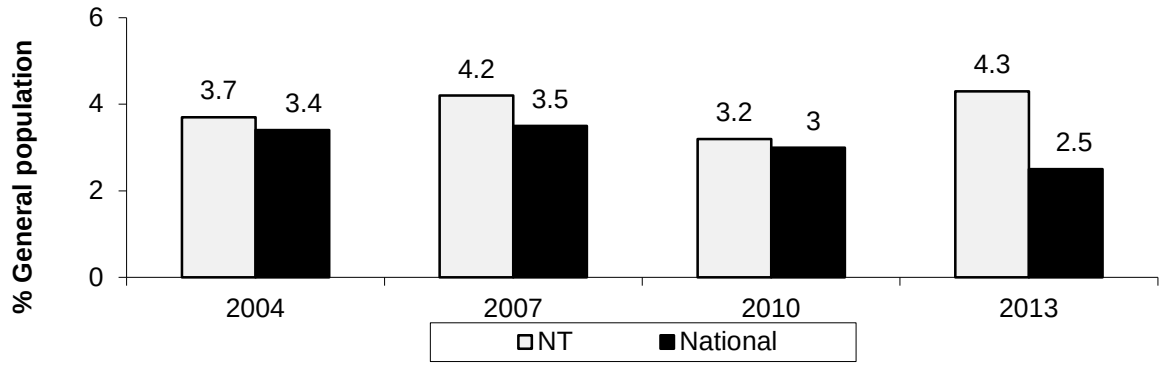
Source: EDRS participant interviews 2016
* Pills, powder and capsules n=93; MDMA crystal n=34.

4.2.3 Use of ecstasy in other populations

General population

Figure 4 presents data collected for the National Drug Strategy Household Survey (NDSHS) from 2004 to 2013. 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 risen to 4.3% in 2013. Furthermore, ecstasy use in the last 12 months was most common in the NT (Australian Institute of Health and Welfare, 2014).

Figure 4: Percentage of sample reporting recent* ecstasy use in the general population, NT and national



Source: Australian Institute of Health and Welfare (2005, 2008, 2011, 2014)
* Used in the last 12 months

Key expert comments

KE reported that the use of ecstasy in the NT was decreasing compared to the use of crystal methamphetamine. KE also speculated that the consumption of ecstasy is a substitute for alcohol, as someone who has a night out will spend less on ecstasy tablets compared to alcoholic drinks.

4.3 Methamphetamine use

Summary:

Speed

- A significantly greater proportion of the EDRS sample in 2016 (74%) reported lifetime use of speed than in 2015 (58%).
- One-quarter (27%) had used speed during the preceding six months.
- Speed was used on a median of 3 days over the preceding six months and was primarily snorted.

Base

- A minority of the sample had used base in their lifetime (20%) and few reported recent use (5%).
- The median age at which base was first used was 17 years (range=14–25).

Crystal methamphetamine

- Over half (61%) had ever used crystal methamphetamine and one-third had done so recently.
- Crystal methamphetamine was used on a median of 12.5 days over the preceding six months (compared to 6 days in 2015) and was most commonly smoked.
- The quantity of use appeared to remain relatively stable in 2015.

General methamphetamine consumption observations

- Speed and crystal methamphetamine were commonly purchased from friends, with the majority of purchases taking place in private settings.
- The use of methamphetamine among the NT general population increased slightly from 2010 (2.1%) to 2013 (2.8%). No gender differences were found.
- Most health and law enforcement KE reported that crystal methamphetamine was a significant drug of concern due to its addictive and harmful properties. KE reported that the use of crystal methamphetamine had increased over the past 12 months.

Throughout the 1990s, the proportion of amphetamine-type substance (ATS) seizures that were methamphetamine (rather than amphetamine sulphate, the form most commonly available throughout the 1980s) steadily increased, until methamphetamine dominated the market (Australian Bureau of Criminal Intelligence, 2001). The number and weight of both ATS (excluding MDMA) detections and seizures at the Australian border increased in 2012–13 and are the highest on record (Australian Crime Commission, 2015).

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, & Ricaurte, 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, & Kelly, 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 et al., 2005).

4.3.1 Methamphetamine use among EDRS participants

Methamphetamine powder (speed)

A significantly greater proportion of the EDRS sample in 2016 (74%) reported lifetime use of speed than in 2015 (58%), and about one-quarter (27%) had used it during the preceding six months. Speed was first used at a median age of 19 years (range=14–25). Speed was used on a median of 3 days (range=1–48) over the preceding six months. The majority (74%) of those who had recently used speed had done so on a less than monthly basis.

Most recent users 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 0.75 gram (range=0.2–3). The median amount used in the 'heaviest' use session was 1 gram (range=0.2–3). The most common route of administration (ROA) for speed users in the preceding six months was snorting (82%). Other ROA included swallowing (33%), smoking (7%) and injecting (4%).

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

	2008 (N=55)	2009 (N=67)	2013 (N=45)	2014 (N=100)	2015 (N=101)	2016 (N=100)
Ever used (%)	67	82	53	58	58	**74↑**
Used last 6 mths (%)	24	61	33	39	31	**27**
Of those who had used recently:						
Median days used last 6 months (range)	(n=13) 2 (1–14)	(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)**
Median quantities used (grams):						
Typical (range) Heavy (range)	1 (.2–2) 1.5 (.2–6)	1 (.3–3.5) 1 (.5–20)	1 (.1–2) 1 (.1–5)	1 (.2–2.5) 1 (.4–4)	.5 (.1–2) .5 (.1–12)	**.75 (.2–3)** **1 (0.2–3)**

Source: EDRS participant interviews 2008, 2009, 2013, 2014, 2015, 2016
Note: ↑ significant increase (95% CI $p<0.05$) from 2015 to 2016

Methamphetamine base

Twenty percent of the sample had ever used base and the median age at which base was first used was 17 years (range=14–25). Five participants 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 5).

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

	2008 (N=55)	2009 (N=67)	2013 (N=45)	2014 (N=100)	2015 (N=101)	2016 (N=100)
Ever used (%)	35	52	7	11	19	**20**
Used last 6 months (%)	9	28	2	5	3	**5**
Of those who used recently:	(n=5)	(n=19)	(n=1)	(n=5)	(n=3)	**(n=5)**
Median days used last 6 months (range)	N/A N/A	2 (1–180)	N/A N/A	N/A N/A	N/A N/A	**N/A** **N/A**
Median quantities used (points):						
Typical (range)	N/A	1 (1–4)	N/A	N/A	N/A	**N/A**
Heavy (range)	N/A	1 (1–4)	N/A	N/A	N/A	**N/A**

Source: EDRS participant interviews 2008, 2009, 2013, 2014, 2015, 2016
N/A: Due to small numbers (n<10) reporting, these figures were not reported.

Crystal methamphetamine

Over half (61%) had ever used crystal methamphetamine, and one-third (32%) had used it over the six months prior to the interview. The median age of first use of crystal methamphetamine was 19 years (range=15–37). Crystal methamphetamine was used on a median of 12.5 days (range=1–170) over the preceding six months. One–third (31%) of those who had recently used crystal methamphetamine had done so on a less than monthly basis, 19% had used between monthly and fortnightly, 19% had used crystal methamphetamine between fortnightly and weekly, and the remaining one-third (31%) 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 1.75 points (range=0.5–8) during 'typical' sessions of use and a median of 2 points (range=0.5–10) on the heaviest session of crystal methamphetamine use over the preceding six months. Recent users reported smoking as the most common ROA for crystal methamphetamine (94%), however smaller proportions also reported recently injecting (25%), swallowing (9%) and snorting (9%) crystal methamphetamine.

The proportions reporting the use of crystal methamphetamine have remained stable to levels seen in 2015 (Table 6), however there has been a notable increase in the days of use from 2015 to 2016 (6 days versus 12.5 days).

Table 6: Patterns of crystal methamphetamine use among EDRS participants, NT

	2008 (N=55)	2009 (N=67)	2013 (N=45)	2014 (N=100)	2015 (N=101)	2016 (N=100)
Ever used (%)	18	28	36	39	48	**61**
Used last 6 months (%)	0	15	20	27	36	**32**
Of those used recently:	(n=0)	(n=10)	(n=9)	(n=27)	(n=36)	**(n=32)**
Median days used last 6 months (range)	– –	5 (1–180)	3 (1–30)	5 (1–150)	6 (1–120)	**12.5 (1–170)**
Median quantities used (points):					1.5 (0.3–10)	**1.75**
Typical (range)	–	3 (1–3)	2 (1–4)	1 (0.5–10)	2.5 (0.3–10)	**(0.5–8)**
Heavy (range)	–	3 (3)	4 (1–5)	3 (0.5–10)		**2 (0.5–10)**

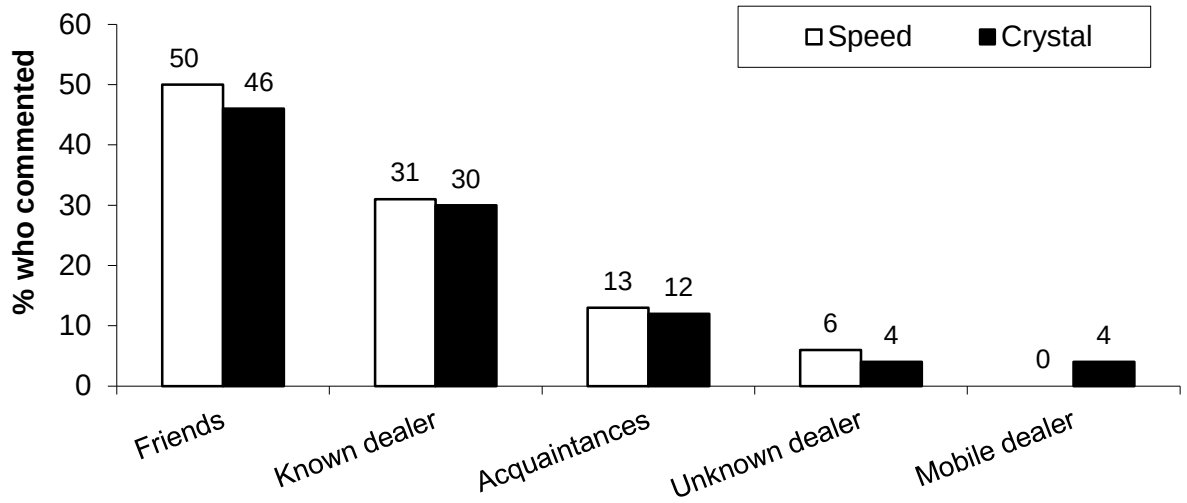
Source: EDRS participant interviews 2008, 2009, 2013, 2014, 2015, 2016

4.3.2 Last source, purchase location and use location of methamphetamine

Figure 5 shows that the sources that participants obtained speed and crystal methamphetamine from on the last occasion were very similar. Both speed and crystal methamphetamine were predominately obtained from friends (50% and 46% respectively), followed by a known dealer (31%; 30%).

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

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

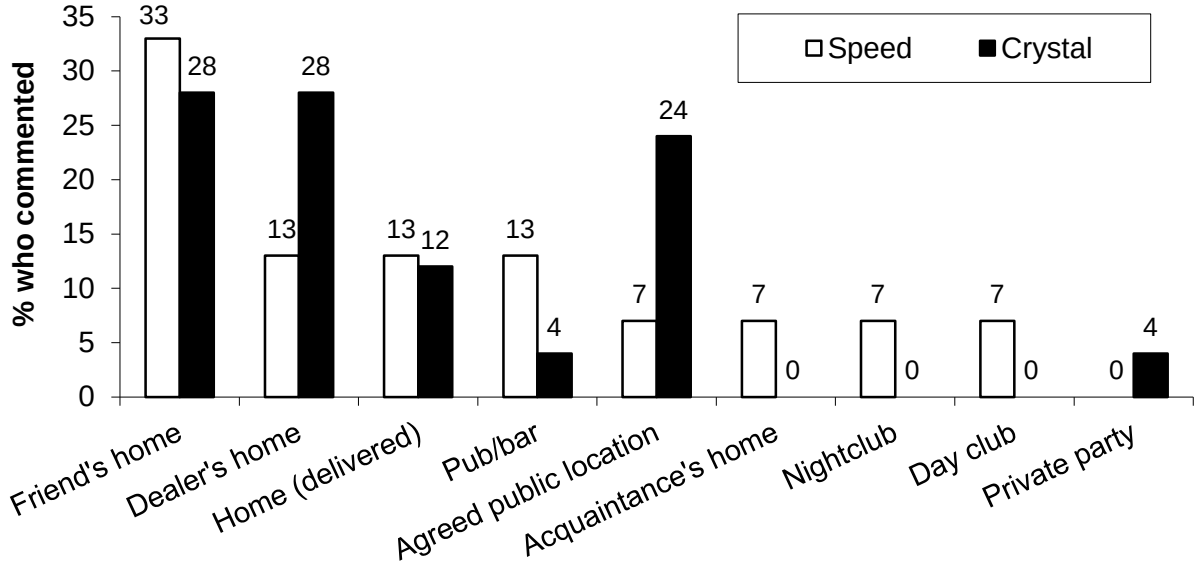


Source: EDRS participant interviews 2016

* Speed n=16; crystal methamphetamine n=26. Numbers for base (n=5) were too small to report.

The majority of those who had recently purchased speed obtained it at a friend's home (33%), a dealer's home (13%), their own home (13%), or at a pub/bar (13%). Conversely, participants were more likely to obtain crystal methamphetamine at a friend's home (28%), their own home (28%) or an agreed public location (24%) (Figure 6).

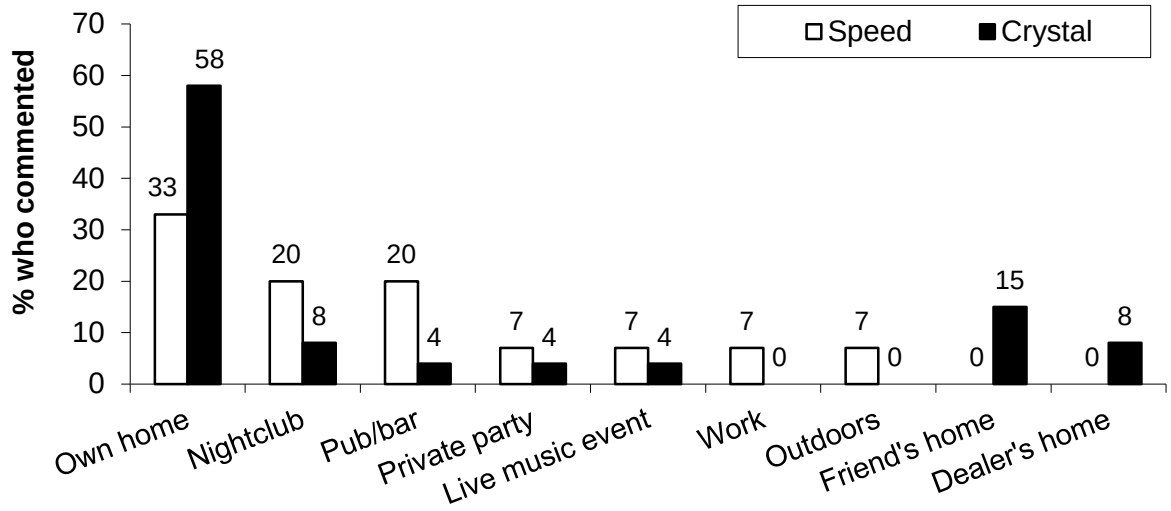
Figure 6: Last location methamphetamine was purchased by EDRS participants, NT*



Source: EDRS participant interviews 2016
* Speed n=16; crystal methamphetamine n=26. Numbers for base (n=5) were too small to report.

Participants who had recently used speed reported that they had last used it across a number of locations, including at their own home (33%), a nightclub (20%) or a pub/bar (20%). The majority of participants who used crystal methamphetamine reported that they had last used it in a private setting, most commonly their own home (58%) or a friend's home (15%) (Figure 7).

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



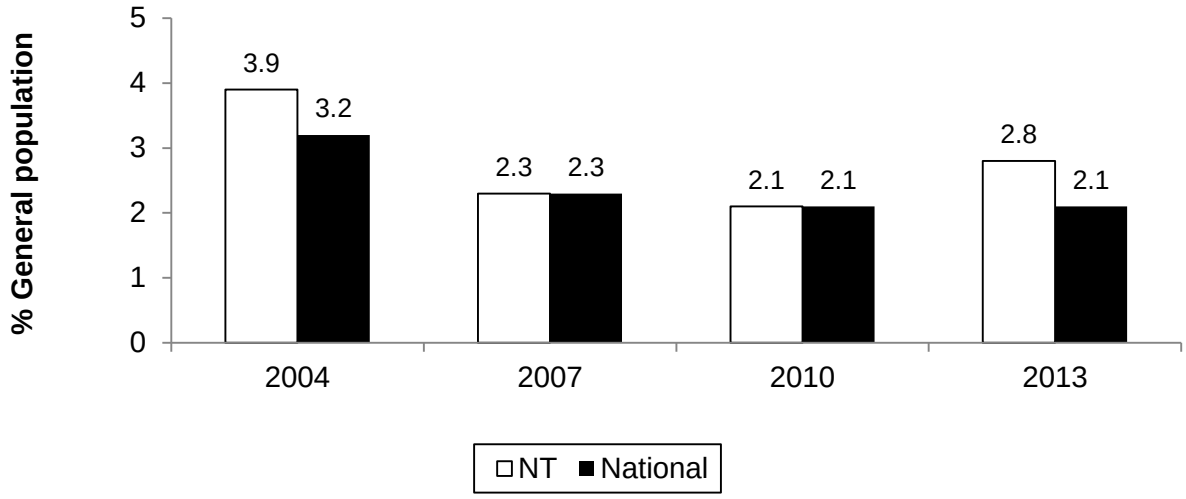
Source: EDRS participant interviews 2016
* Speed n=15; crystal methamphetamine n=26. Due to base n=5, numbers were too small to report.
'Other' responses include hotel and hostel.

4.3.3 Methamphetamine use in other populations

General population

Figure 8 shows the proportion of the general population in the NT and nationally (aged 14 years and over) who reported having recently used any form of methamphetamine. The graph shows that the proportion that had recently used methamphetamine nationally remained stable from 2010 to 2013. There was a non-significant increase in the proportion of NT residents reporting recent methamphetamine use in 2013.

Figure 8: Percentage of sample reporting recent* methamphetamine use in the general population, NT and national



Source: Australian Institute of Health and Welfare (2005, 2008, 2011, 2014)
* Used in the last 12 months

Illicit Drug Reporting System

A separate monitoring system investigating trends in the use of methamphetamine in people who inject drugs (PWID) has been conducted in NSW since 1996, in Victoria and South Australia since 1997, and nationally since 2000. This is called the Illicit Drug Reporting System (IDRS) and reports and bulletins are available from the Drug Trends website (http://www.drugtrends.org.au).

Key expert comments

Methamphetamine (mostly in the form of crystal methamphetamine) was a significant drug of concern for both law and health KE. Crystal methamphetamine was identified as the main drug used by drug users/manufacturers/traffickers that law enforcement KE has contact with over the past six months, and the most problematic drug currently due to its addictive and harmful properties. KE reported that the use of crystal methamphetamine has increased over the past 12 months, which may be due to its highly addictive nature.

The profile of crystal methamphetamine users appears mixed, with KE reporting that they often come from a range of genders, ages, ethnicities and employment statuses. Most KE agreed that a common characteristic was the presentation of underlying mental health conditions, most commonly depression, anxiety and schizophrenia.

KE reported that crystal methamphetamine had been associated with violence including domestic violence; various forms of crime including property, drug-dealing and violent offending crimes; health presentations to emergency departments; anti-social behaviours; and financial, employment and relationship difficulties. It was also reported that a number of consumers who had previously smoked or inhaled the drug have since commenced injecting practices.

In relation to suppliers, law enforcement KE reported that the high profit margin from selling crystal methamphetamine in the NT compared to other jurisdictions means that it is an attractive product for established criminal networks, organised crime and "unknowns" attempting to make money. Law enforcement KE reported that a majority of methamphetamine products are imported from overseas locations such as China, and then distributed among dealers in Australia. It was also reported that there have been increasing postal seizures of methamphetamine products, with drugs often found in larger quantities than previously. Law enforcement KE emphasised that more resources need to be allocated towards detection and awareness of the use of methamphetamine, as it was suggested that methamphetamine use will continue to increase unless measures are put in place to decrease the manufacture and importations of methamphetamine.

Health KE emphasised the importance of prevention and early intervention strategies targeted at youths, parents, schools and the general community. Such strategies should increase awareness of the risks and harms of dependence, with more appropriate resources generated. One KE reported that there were very few rehabilitation facilities in the NT, and this was an area that required improvement. Two health KE expressed concern over the growing rate they had observed crystal methamphetamine and cannabis poly drug use.

4.4 Cocaine use

Summary:

- The majority of the group (80%) had tried cocaine at least once, and under half (42%) had used it recently.
- Cocaine was used on a median of 3 days (i.e. every second month) over the preceding six months.
- The frequency and the quantities of cocaine used remained stable from 2015.
- Cocaine was most commonly purchased from friends in private settings.

Despite recent use of cocaine remaining stable in the Australian population from 2010 to 2013, in the NT there was an increase from 0.5% to 2.4% over this time period.

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 (80%) of RPU in 2016 had ever used cocaine, and 42% had used it during the six months prior to the interview. The median age at which cocaine was first used was 20 years (range=15–26).

Participants who had used cocaine over the preceding six months had done so on a median of 3 days (range=1–30). The majority (64%) had used cocaine on a less than monthly basis, and 24% had used between monthly and fortnightly, 10% reported using cocaine fortnightly to weekly, and 3% reported more than weekly use.

The majority (81%) of recent cocaine users quantified their use in terms of grams. The median amount used during a 'typical' occasion of use was 0.5 gram (range=0.2–2) and the median amount used on the heaviest occasion was also 0.5 gram (range=0.2–3). The majority (97%) of recent users of cocaine reported to have snorted it over the preceding six months, with a smaller proportion reporting that they had swallowed (10%) it.

Table 7 presents data across time on the prevalence, frequency and quantity of cocaine use among EDRS participants interviewed in the NT in 2016, which remained mostly stable to 2015 figures.

Table 7: Patterns of cocaine use among EDRS participants, NT

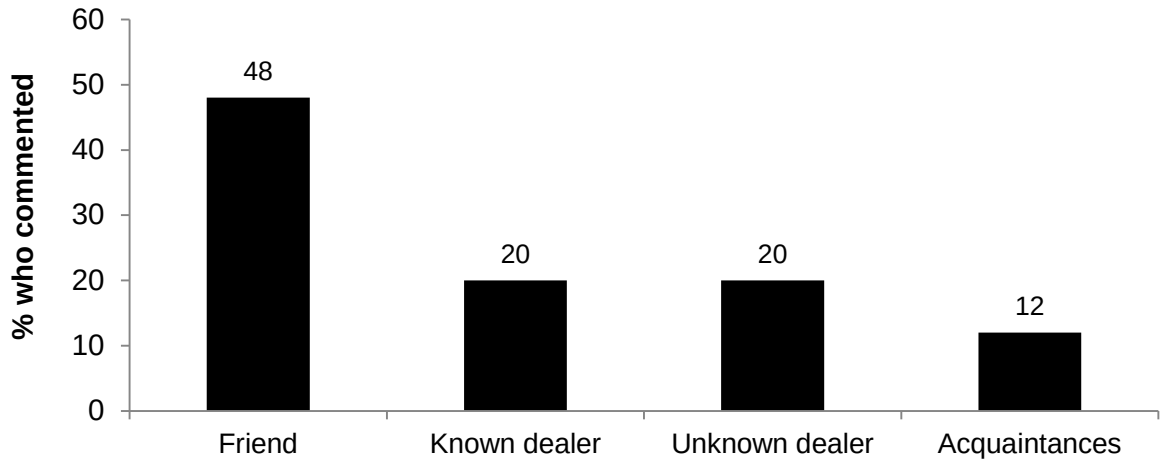
	2008 (N=55)	2009 (N=67)	2013 (N=45)	2014 (N=100)	2015 (N=101)	2016 (N=100)
Ever used %	36	52	64	64	72	**80**
Used last 6 months %	2	23	33	39	52	**42**
Of those who recently used:	(n=1)	(n=15)	(n=15)	(n=39)	(n=52)	**(n=42)**
Median days used	N/A	2	4	2	2	**3**
last 6 months (range)	N/A	(1–12)	(1–30)	(1–24)	(1–50)	**(1–30)**
Median quantities used (grams):						
Typical (range)	N/A	0.5 (0.3–1)	1 (0.3–2)	1 (0.5–2.5)	0.5 (0.1–4)	**0.5 (0.2–2)**
Heavy (range)	N/A	0.5 (0.3–2)	1.5 (0.3–8)	1 (0.5–8)	1 (0.1–10)	**0.5 (0.2–5)**

Source: EDRS participant interviews 2008, 2009, 2013, 2014, 2015, 2016
N/A: Due to small numbers reporting, these figures were not reported.

4.4.2 Last source, purchase location and use location of cocaine

Among those who commented (n=25), almost half last purchased cocaine from a friend (48%), while the remaining users had last purchased from a known dealer (20%), unknown dealer (20%) or acquaintances (12%) (Figure 9).

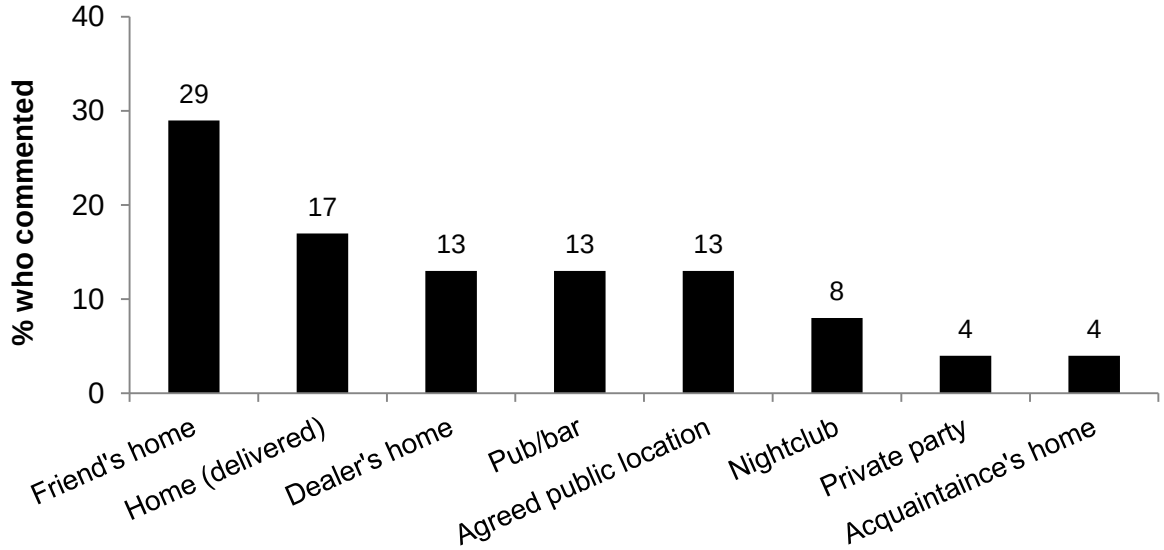
Figure 9: Last source cocaine was purchased from by EDRS participants, NT



Source: EDRS participant interviews 2016

Participants reported last purchasing cocaine mostly in private settings. The most common locations reported included a friend's home (29%), delivered to their home (17%) or a dealer's home (13%) (Figure 10).

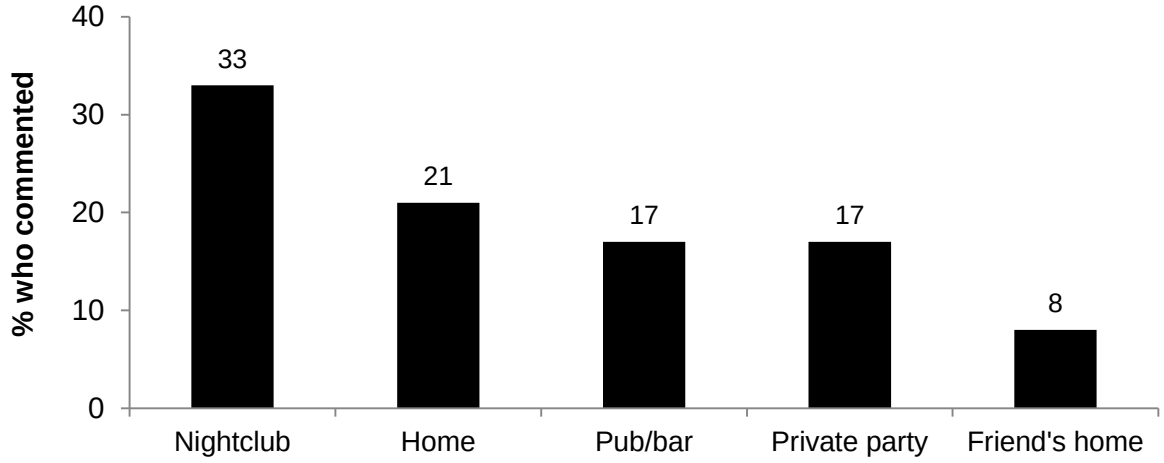
Figure 10: Last location cocaine was purchased by EDRS participants, NT



Source: EDRS participant interviews 2016

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 (33%) followed by their own home (21%) (Figure 11).

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



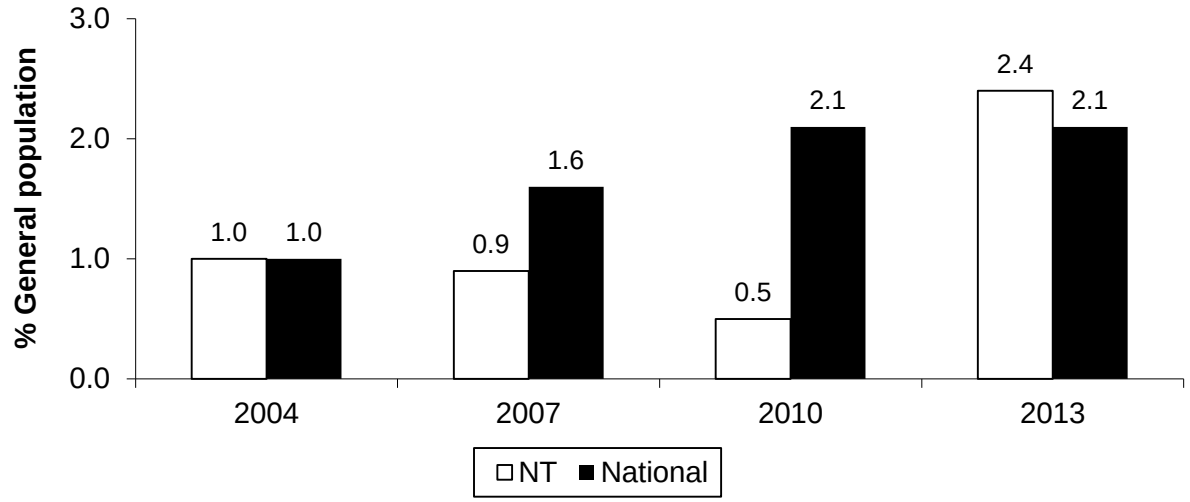
Source: EDRS participant interviews 2016

4.4.3 Cocaine use in other populations

General population

Reported recent use of cocaine across the Australian population remained stable from 2010 to 2013 (Figure 12). Despite this, the NT has shown a notable increase in recent cocaine use over this time period from 0.5% to 2.4%; however, this trend did not reach significance.

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



Source: Australian Institute of Health and Welfare (2005, 2008, 2011, 2014)
* Used in the last 12 months

Illicit Drug Reporting System

A separate monitoring system investigating trends in the use of cocaine among PWID has been conducted in NSW since 1996, VIC and SA since 1997, and nationally since 2000. This is called the IDRS, and reports and bulletins are available from the Drug Trends website (http://www.drugtrends.org.au/).

Key expert comments

Over the past 12 months, there has been increasing concern over the use of cocaine in the NT, with 3 law enforcement and 3 health KE identifying cocaine as one of the most problematic drugs at present. There were reports that cocaine was now more popular, possibly as the use of cocaine is more socially acceptable than methamphetamine. Law enforcement KE believed that cocaine use was under reported to police or crime stoppers, and the profits of cocaine dealing were being channelled to organised crime networks.

Health KE reported that despite cocaine use increasing, it appears to be less problematic than methamphetamine use.

4.5 LSD use

Summary:

- The majority (75%) of the sample had tried LSD at least once and one-third had used it recently.
- LSD was used on a median of 4 days over the preceding six months (every six weeks).
- 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 (75%) of the sample had ever used LSD and one-third (32%) had used it recently. Respondents had first used LSD at a median age of 18 years (range=12–26). LSD was used on a median of 4 days (range=1–60) over the preceding six months (Table 8). Of those who had used LSD, the majority (60%) had done so on a less than monthly basis, 22% had used it between monthly and fortnightly, and 6% had used LSD between fortnightly and weekly or more than weekly, respectively.

All respondents quantified their use in terms of tabs. They reported having used a median of 2 tabs during an average session of use (range=0.5–100) and during the heaviest session of use (range=0.5–120) in the preceding six months (Table 8). All recent users of LSD had swallowed it in the last six months, with a small proportion also reporting snorting it (6%).

Table 8 presents data across time on patterns of LSD use among EDRS participants. The proportions reporting lifetime and recent use of LSD have remained stable since 2013, however in 2016 we did see a greater number of median days of LSD use reported.

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

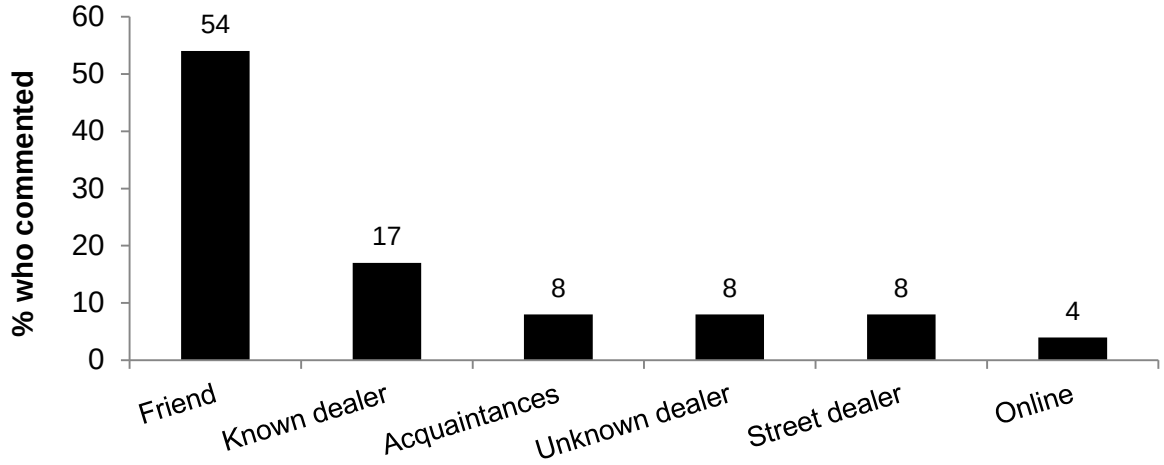
	2008 (N=55)	2009 (N=67)	2013 (N=45)	2014 (N=100)	2015 (N=101)	2016 (N=100)
Ever used (%)	60	47	64	63	64	**75**
Used last 6 months (%)	16	11	40	43	32	**32**
Of those who recently used:	(n=9)	(n=7)	(n=18)	(n=43)	(n=32)	(n=32)
Median days used last 6 months (range)	1.5 (1–8)	3 (1–12)	2 (1–15)	3 (1–24)	2 (1–14)	4 (1–60)
Median quantities used (tabs):						
Typical (range)	2 (0.5–3)	1 (0.8–2)	1 (1–3)	1 (0.3–6)	1 (0.5–9)	**2 (0.5–100)**
Heavy (range)	3 (0.5–11)	1 (0.8–3)	1 (1–5)	1.5 (0.3–8)	2 (0.5–9)	**2 (0.5–120)**

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

4.5.2 Last source, purchase location and use location of LSD

Among those who commented (n=24), the majority last purchased LSD from a friend (54%) or a known dealer (17%) (Figure 13).

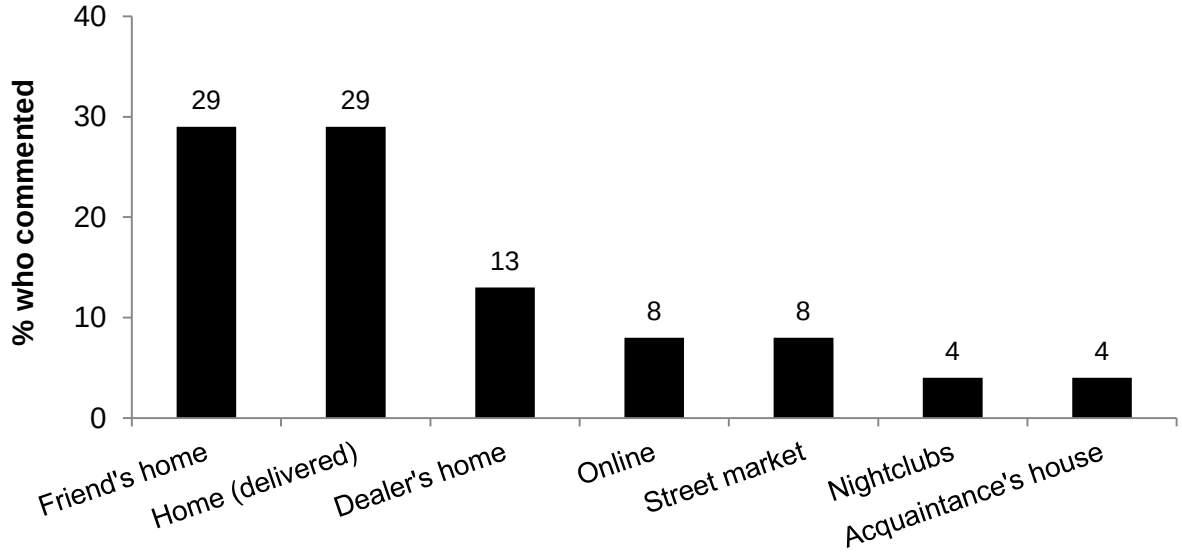
Figure 13: Last source LSD was purchased from by EDRS participants, NT



Source: EDRS participant interviews 2016

The largest proportion of participants reported last purchasing LSD in private settings. The most common private locations where participants purchased LSD included a friend's home (29%) and their own home (29%) (Figure 14).

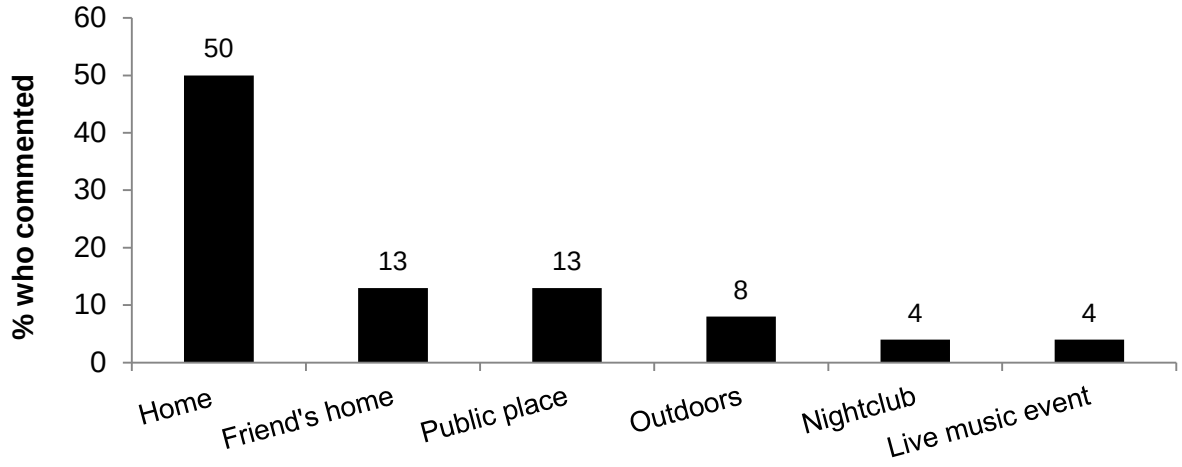
Figure 14: Last location LSD was purchased by EDRS participants, NT



Source: EDRS participant interviews 2016

Participants reported on the last venue where they spent the most time intoxicated on LSD. These included mostly private settings, with the most common locations reported as a their own home (50%) or a friend's home (13%) (Figure 15).

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



Source: EDRS participant interviews 2016

Key expert comments

KE did not make any comments on the use of LSD or problems recently experienced from this illicit drug in the NT.

4.6 Ketamine use

Summary:

- Two-fifths of the sample had tried ketamine at least once and 11% had used it recently.
- Ketamine was used on a median of 1 day over the preceding six months.
- NT participants reported 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. 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 user, 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 user 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, 2009, 2010).

4.6.1 Ketamine use among EDRS participants

Two-fifths (37%) of the 2016 NT sample reported having ever used ketamine and 11% had done so recently. Ketamine had been used on a median of 1 day (range=1–12) by EDRS participants who had recently used ketamine. Over half of recent users reporting using ketamine less than monthly (63%), with the remaining participants reporting monthly to fortnightly (37%).

The most common ROA reported by those who had used ketamine in the past six months was snorting (91%), followed by swallowing (9%). 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 9 presents data across time regarding patterns of ketamine use among participants interviewed in the EDRS.

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

	2008 (N=55)	2009 (N=67)	2013 (N=45)	2014 (N=100)	2015 (N=101)	2016 (N=100)
Ever used (%)	6	13	40	37	42	**37**
Used last 6 months (%)	0	0	9	15	18	**11**
Of those who recently used:	(n=0)	(n=0)	(n=4)	(n=15)	(n=18)	**(n=11)**
Median days used last 6 months (range)	– –	– –	N/A N/A	3 (1–10)	3 (1–30)	**1 (1–12)**
Median quantities used (bumps):						
Typical (range)	–	–	N/A	4.5 (1–8)	3 (2–5)	N/A
Heavy (range)	–	–	N/A	6.5 (1–12)	4 (2–10)	N/A

Source: EDRS participant interviews 2008, 2009, 2013, 2014, 2015, 2016
N/A: Due to small numbers reporting, these figures were not reported.

Key expert comments

Two health KE reported that ketamine had been used as a 'come-down' drug among the users that had presented to their service.

4.7 GHB use

Summary:

- Compared to other illicit drugs, GHB had been used by a smaller proportion of participants in their lifetime (24%) and recently (4%).

Gamma-hydroxybutyrate (GHB) has been researched and used for a number of clinical purposes including as an anaesthetic (Kam & Yoong, 1998; Nicholson & 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, & Ryrie, 1971). Research also examined the effectiveness of GHB as a narcolepsy treatment (Chin, Kreutzer, & Dyer, 1992; Mack, 1993; Mamelak, 1989) and for alcohol dependence and opioid withdrawal (Kam & Yoong, 1998; Nicholson & Balster, 2001).

In recent years, there has been 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, Bellezo, & Clark, 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

One-quarter of participants (24%) had ever used GHB and four EDRS participants reported having done so recently (Table 10). Due to small numbers reporting, no findings were published on recent GHB consumption patterns.

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

	2008 (N=55)	2009 (N=67)	2013 (N=45)	2014 (N=100)	2015 (N=101)	2016 (N=100)
Ever used (%)	6	13	13	10	15	**24**
Used last 6 mths (%)	0	0	2	2	3	**4**

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

Key expert comments

Two health KE reported that GHB was used in the party scene by mostly heterosexual males. No other comments regarding GHB were made by KE.

4.8 Cannabis use

Summary:

- The vast majority had tried cannabis at least once (98%) and the vast majority had used it recently (82%).
- There was a significant increase in frequency of use, with RPU reporting cannabis use on a median of 165 days (i.e. almost every day) over the preceding six months, which was a noticeable increase from 2015 (90 days) and 2014 (30 days).
- Almost half (46%) of recent cannabis users were daily users.
- 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 proportion of recent cannabis users than any other jurisdiction (17.1% vs national rate of 10.2%).
- Health KE revealed that cannabis use was common and problematic among ERD users in Darwin.

Cannabis is derived from the cannabis plant (C*annabis 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-tetrahydro-cannabinol (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 2016 NT EDRS (98%) had ever used cannabis and the majority (82%) reported having done so over the six months preceding the interview (Table 11). Cannabis was first used at a median age of 14 years (range=9–23).

Recent cannabis users reported having used it on a median of 165 days (range=1–180), which equates to almost daily use. The frequency of cannabis use is significantly greater in 2016 than prior years. While one-tenth (10%) of users had used cannabis on a less than monthly basis and 11% had used on a monthly to fortnightly, the majority had used cannabis more than weekly (79%), of which 46% were using daily. The majority of recent users of cannabis had smoked it over the past six months (95%), 26% had inhaled or vaporised it and 16% had recently ingested it.

Recent users of cannabis were asked how much they had smoked on their last occasion of use. Thirty-five participants quantified their last use in terms of cones and reported having smoked a median of 4 cones (range=1–10) on their last occasion of use. Twenty-seven quantified their last use in terms of grams and reported having smoked a median of 1 gram (range=0.5–4) on their last occasion of use. Seventeen EDRS participants quantified their use in terms of joints and reported having smoked a median of 1 joint (range=0.25–7) on their last occasion of use.

Trends in the use of cannabis are presented in Table 11. There was no significant change in the proportions reporting the lifetime or recent use of cannabis, however a noticeable increase in days of use was reported among the 2016 sample.

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

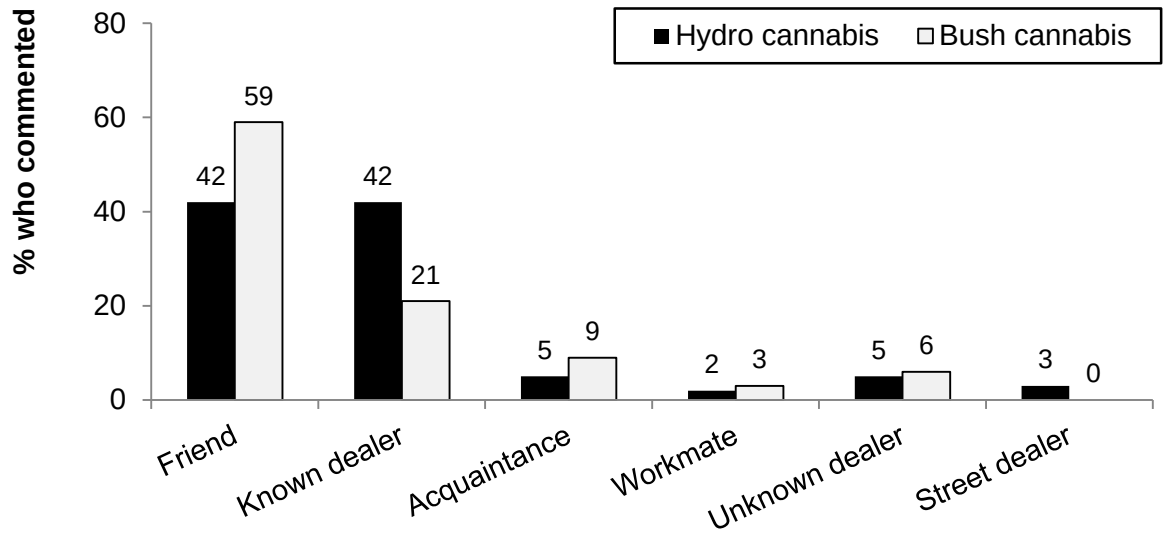
	2008 (N=55)	2009 (N=67)	2013 (N=45)	2014 (N=100)	2015 (N=101)	2016 (N=100)
Ever used (%)	93	93	98	97	92	**98**
Used last 6 months (%)	40	60	71	84	82	**82**
Of those who recently used:	(n=22)	(n=40)	(n=31)	(n=82)	(n=82)	**(n=82)**
Median days used last 6 mths (range)	6 (1–180)	37 (1–180)	24 (1–180)	30 (1–180)	90 (1–180)	**165 (1–180)**

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

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 (42%; 59% respectively) or known dealers (42%; 21% respectively) (Figure 16).

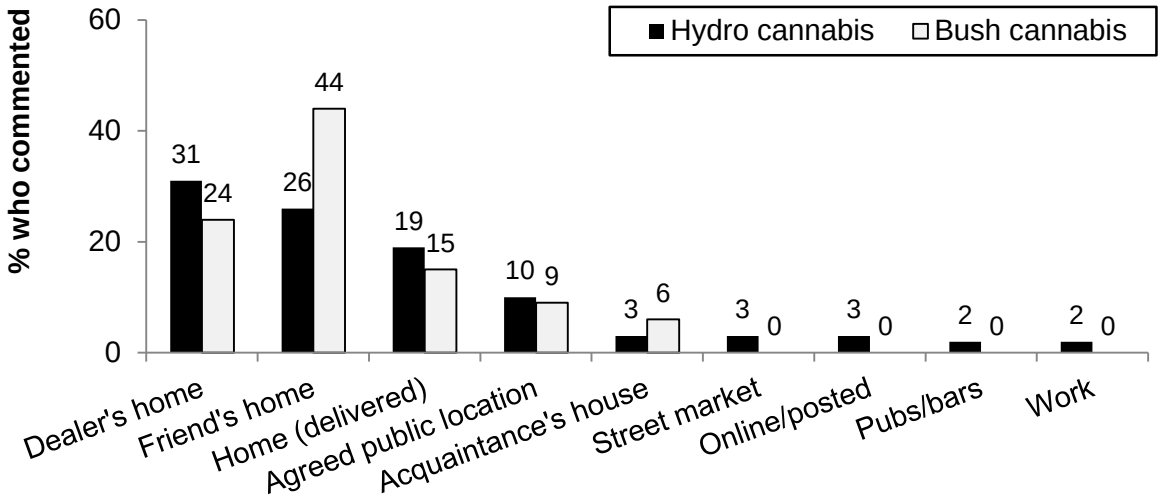
Figure 16: Last source that hydro and bush cannabis were purchased* from by EDRS participants, NT



Source: EDRS participant interviews 2016
* Of those who commented (n=62 for hydro, n=34 for bush)

The largest proportion of participants reported last purchasing hydro and bush cannabis at a dealer's home (31%; 24%) or a friend's home (26%; 44%) (Figure 17).

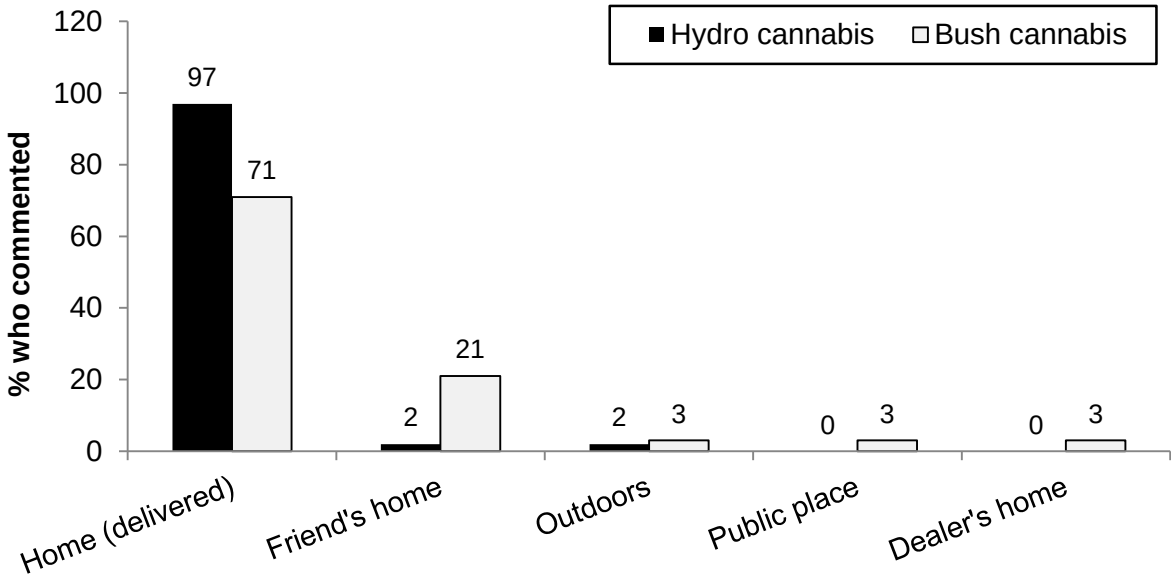
Figure 17: Last location that hydro and bush cannabis were purchased* from by EDRS participants, NT



Source: EDRS participant interviews 2016
* Of those who commented (n=62 for hydro, n=34 for bush)

Most participants who had recently used hydro or bush reported they last used in a private setting, including at their own home (97% and 71% respectively) or a friend's home (2% and 21% respectively) (Figure 18).

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



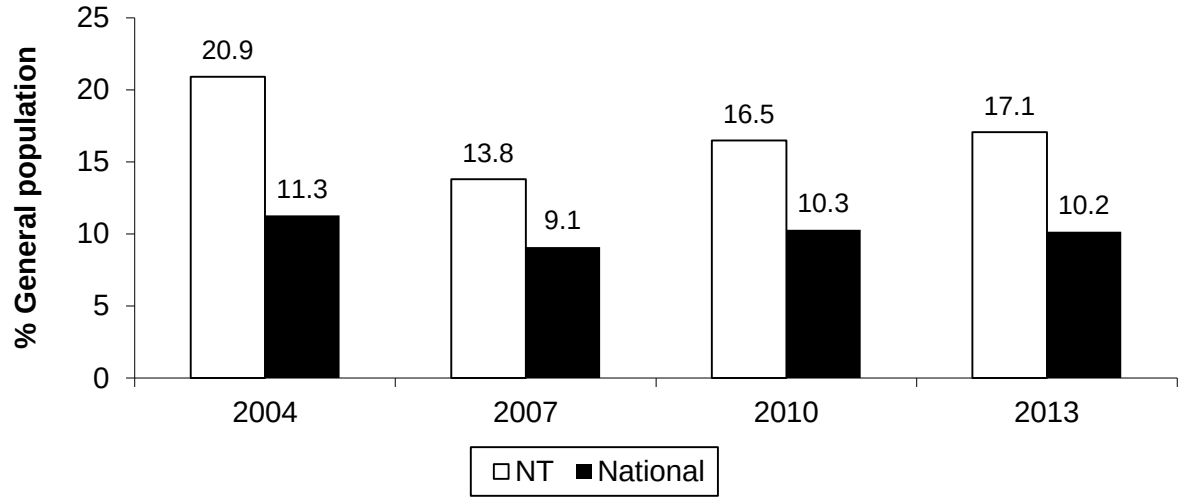
Source: EDRS participant interviews 2016
* Of those who commented (n=62 for hydro, n=34 for bush)

4.8.3 Cannabis use in other populations

General population

The proportion of the NT general population aged 14 years or over reporting recent use of cannabis increased from 16.5% in 2010 to 17.1% in 2013, and the national rate remained stable at 10.2%. The NT has consistently had the highest proportion of recent cannabis users than any other jurisdiction since 1998.

Figure 19: Percentage of sample reporting recent* cannabis use in the general population, NT and national



Source: Australian Institute of Health and Welfare (2005, 2008, 2011, 2014)
* Used in the last 12 months

Illicit Drug Reporting System (IDRS)

A separate monitoring system investigating trends in the use of cannabis in PWID has been conducted in NSW since 1996, VIC and SA since 1997, and nationally since 2000. This is called the IDRS, and reports and bulletins are available from the Drug Trends website (http://www.drugtrends.org.au/reports/?p=IDRS).

Key expert comments

The majority of law enforcement and health KE identified cannabis as a problematic drug, with five health KE reporting that cannabis was the main drug used by the users that they had had the most contact with in the past 6 months. Health KE reflected that cannabis users were mostly long-term cannabis smokers of both genders who consumed cannabis for stress management and sleep difficulties.

4.9 Other drug use

Summary:

Alcohol

- All participants reported lifetime use, and 94% reported recent use.
- KE reported that alcohol continued to be one of the most problematic drugs, and emphasised the strong association with mental health.

Tobacco

- The majority (95%) of the NT sample had used tobacco at least once and had smoked within the past six months (87%). Most recent smokers (63%) used daily.

E-cigarettes

- Fifty-nine percent of the NT sample reported they had used e-cigarettes in their lifetime and 24% had used e-cigarettes recently.

Benzodiazepines

- One-third had recently used benzodiazepines. Illicit use was notably more common than licit use in the past six months (14% vs. 6%).

Antidepressants

- No participants had recently used illicit antidepressants.

Inhalants

- Similar proportions reported lifetime and recent use of amyl nitrite (27%; 8%) and nitrous oxide (46%; 17%) in 2016 as 2015.

MDA

- Twenty-two percent of the NT sample reported they had used MDA in their lifetime and 7% had used MDA recently.

Heroin and other opiates

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

Mushrooms

- Half the sample reported lifetime use of mushrooms and five 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-four percent of the NT sample reported they had used OTC codeine in their lifetime and 11% had used OTC codeine recently.

Antipsychotics

- Nine NT participants reported lifetime use of antipsychotics.

Performance and image enhancing drugs (PIED)

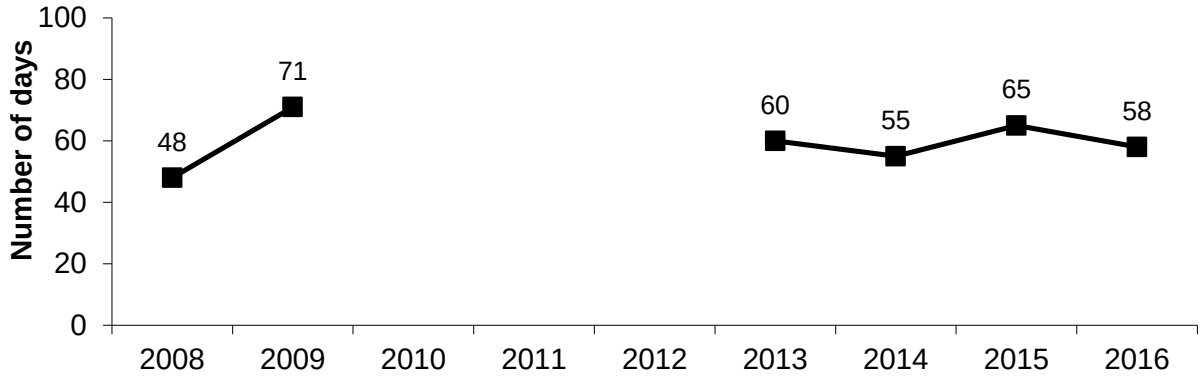
- Six participants reported recent use of PIEDs.

4.9.1 Alcohol

The entire 2016 NT sample reported having used alcohol at least once (100%), and almost all had consumed alcohol in the past six months (94%). Participants had first used alcohol at a median age of 14 years (range=3–18). Participants reported having consumed alcohol on a median of 58 days (range=1–180) over the preceding six months and the majority of EDRS participants had used alcohol on a greater than weekly basis (68%), with 4% 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 have remained relatively stable across time. 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

Key expert comments

Most health KE commented that alcohol was currently a highly problematic drug in the NT, particularly in terms of alcohol-related health and social consequences that impact individuals, families and communities. Many KE identified the association between problematic alcohol use and other mental health conditions (anxiety, depression), as well as the association with anti-social behaviours.

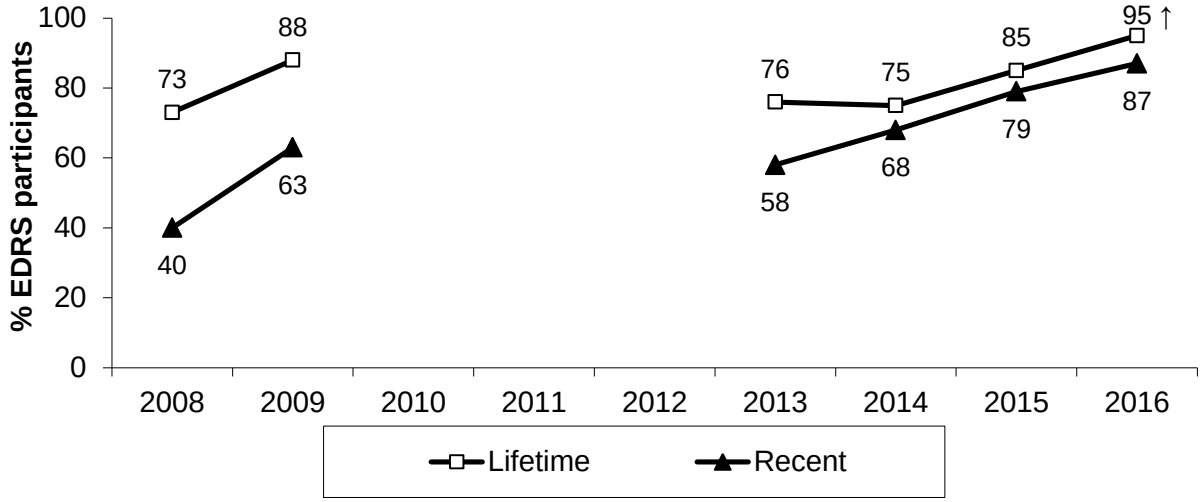
Health KE reported various service delivery changes they had made in response to the high presentations of risky alcohol consumption, including creating partnerships with alcohol and other drug (AOD) services, increasing referrals to appropriate treatments, conducting more mental health screenings, and managing medicated withdrawal of clients from alcohol.

KE expressed the need for increased access to AOD services outside business hours and in remote settings. It was also noted that mandatory detention for alcohol abuse in Darwin would be futile without addressing the social context and underlying drivers of alcohol abuse.

4.9.2 Tobacco

The majority (95%) of EDRS participants interviewed in 2016 reported lifetime tobacco use and the majority (87%) reported recent use. Tobacco was first used at a median age of 14 years (range=9–25). The majority of those who had recently used tobacco were daily (63%) smokers. Tobacco had been used on a median of 180 days (range=2–180) over the preceding six months. There has been an upward trend in the proportion of EDRS participants using tobacco in their lifetime and recently since 2013, with the increase from 2015 to 2016 in lifetime use reaching significance (Figure 21).

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



Source: EDRS participant interviews 2008, 2009, 2013, 2014, 2015, 2016
Note: ↑ significant increase (95% CI $p<0.05$) from 2015 to 2016

4.9.3 E-cigarettes

Fifty-nine percent of the NT sample reported they had used e-cigarettes in their lifetime and 24% had used e-cigarettes in the six months prior to interview. Median days used was reported at three days, that is, once every two months (range=1–180 days). Median age of first use is 23 years (range=14–37 years). The majority of recent users reported that their e-cigarettes contained nicotine (65%) and had not been used as a smoking cessation tool (76%).

4.9.4 Benzodiazepines

One-third (35%) of the sample reported having ever used any benzodiazepines and one-fifth (20%) reported having done so recently. Among those who had recently used them, benzodiazepines had been used on a median of 3 days (range=1–180) in the last six months. Compared to 2015 figures, lifetime and recent use figures have remained stable in 2016 (Figure 22).

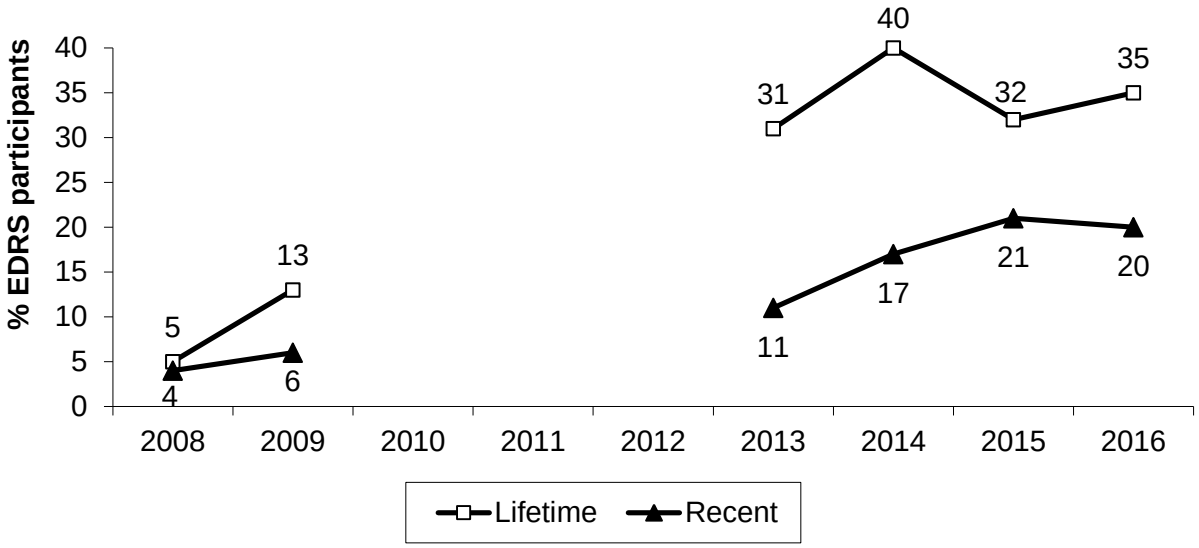
Licit benzodiazepines

One-tenth (11%) of EDRS participants reported having ever used licitly obtained benzodiazepines and six participants (6%) had done so recently. Of the six recent users, they had used licit benzodiazepines on a median of 5 days (range=2–180) over the six months prior to the interview and reported swallowing as their only route of administration over this period.

Illicit benzodiazepines

One-third (30%) of EDRS participants had ever used illicitly obtained benzodiazepines, and fourteen participants (14%) had done so over the preceding six months. Illicit benzodiazepines had been used on a median of 3 days (range=1–24) in the last six months, and all participants reported swallowing as their route of administration.

Figure 22: Proportion of EDRS participants reporting lifetime and recent benzodiazepine use (licit and illicit), 2008-2016 NT



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

4.9.5 Illicit antidepressants

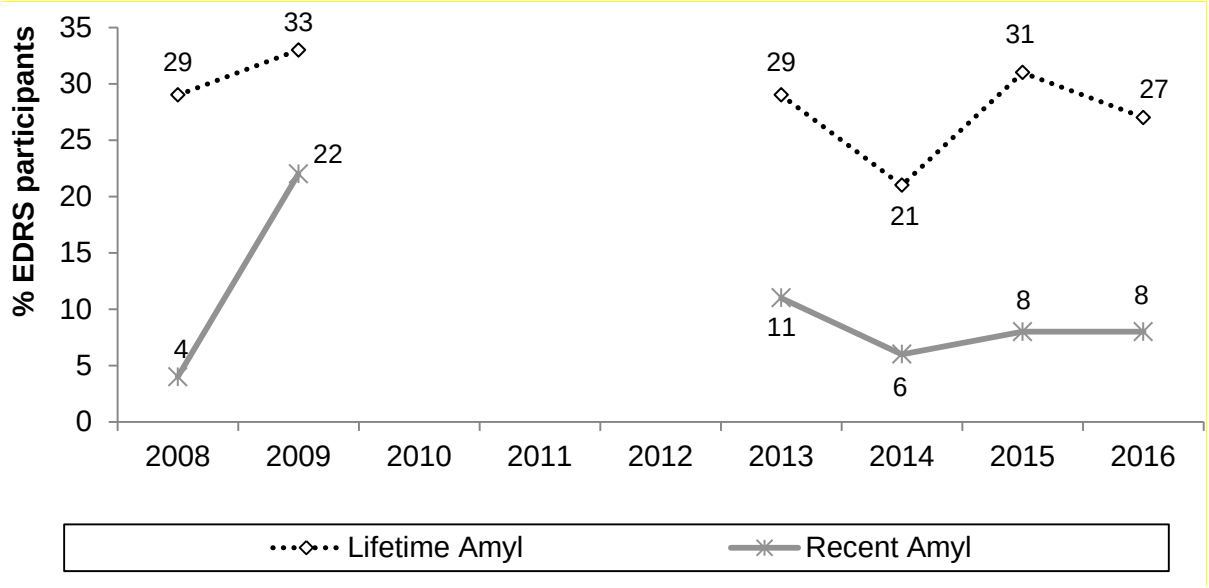
In 2016, the EDRS only asked participants about their use of illicit antidepressants. No participants in the NT EDRS reported having ever consumed illicit antidepressants.

4.9.6 Inhalants

Amyl nitrite

Approximately one-quarter (27%) 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 3 days (range=1–72) over the preceding six months.

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

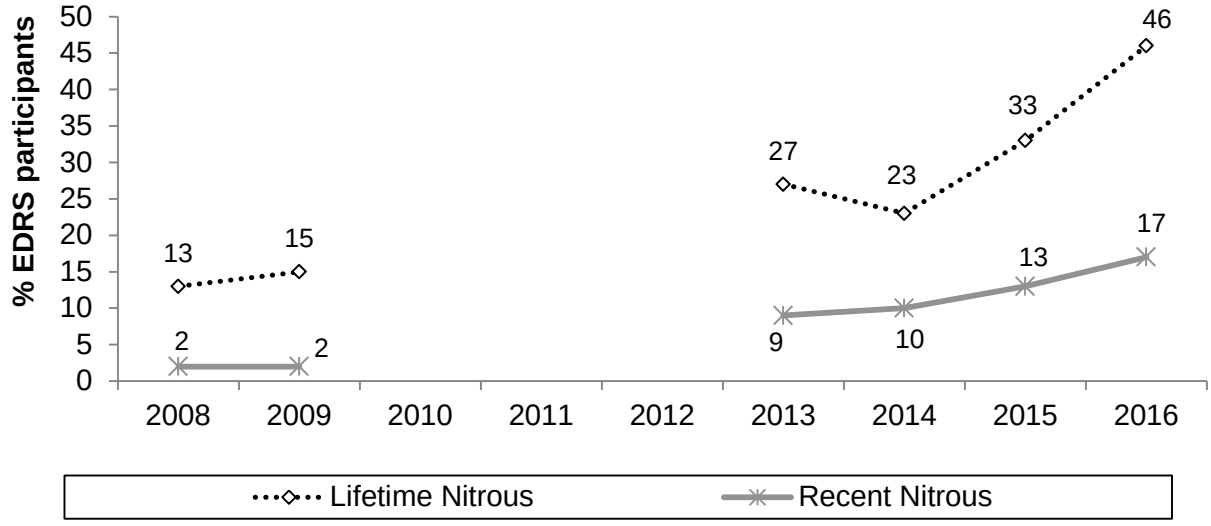


Source: EDRS participant interviews 2008, 2009, 2013, 2014, 2015, 2016

Nitrous oxide

Almost half (46%) of the sample reported having ever used nitrous oxide and 17% had done so recently (Figure 24). Among those who had used it over the last six months, nitrous oxide had been used on a median of 5 days (range=1–24) during this time, with the majority reporting that they used it on a less than monthly basis (65%).

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



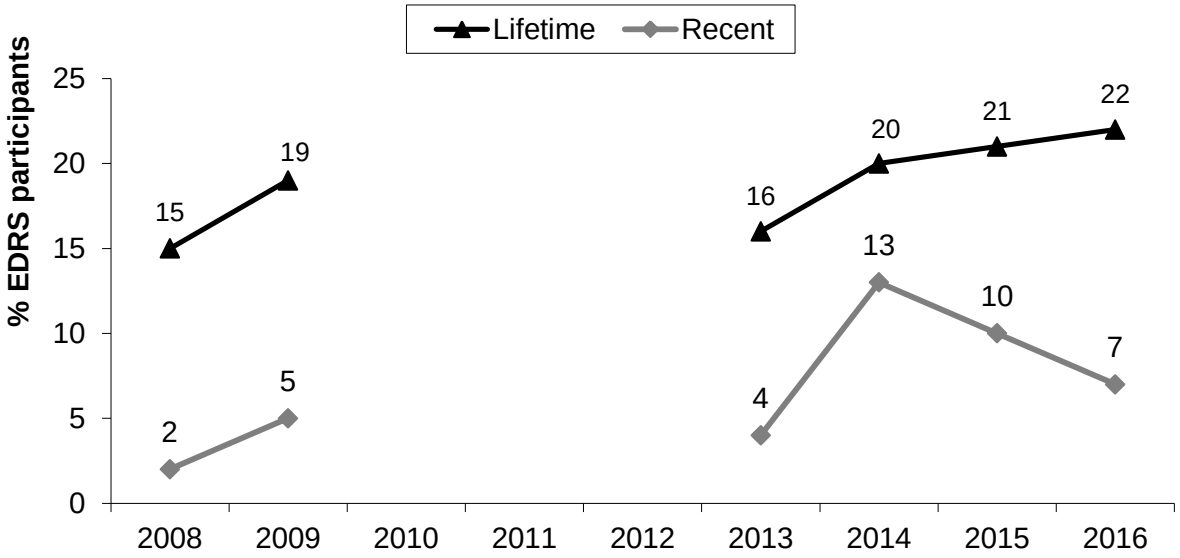
Source: EDRS participant interviews 2008, 2009, 2013, 2014, 2015, 2016

4.9.7 MDA

Twenty-two percent of participants in the 2016 EDRS reported having ever used MDA. Seven participants reported they had used it over the preceding six months. Due to small numbers reporting recent use patterns, this data has not been presented.

The proportion of EDRS participants who have used MDA recently and in their lifetimes has remained stable in 2016 (Figure 25).

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



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

4.9.8 Heroin and other opiates

Heroin

Fifteen EDRS participants reported that they had ever used heroin, however no participants reported using it in the preceding six months.

Methadone and buprenorphine

Three participants in the 2016 NT EDRS reported lifetime use of methadone, with one reporting recent use. Similarly for buprenorphine, 3% reported lifetime use and 1% reported recent use.

Other opiates

While nine respondents (9%) had ever used a licitly obtained opiate (other than methadone or buprenorphine), only three participants had used a licitly obtained opiate recently. Eighteen participants (18%) had ever used illicitly obtained opiates (other than heroin, methadone or buprenorphine). Seven participants had used them over the six months prior to the interview.

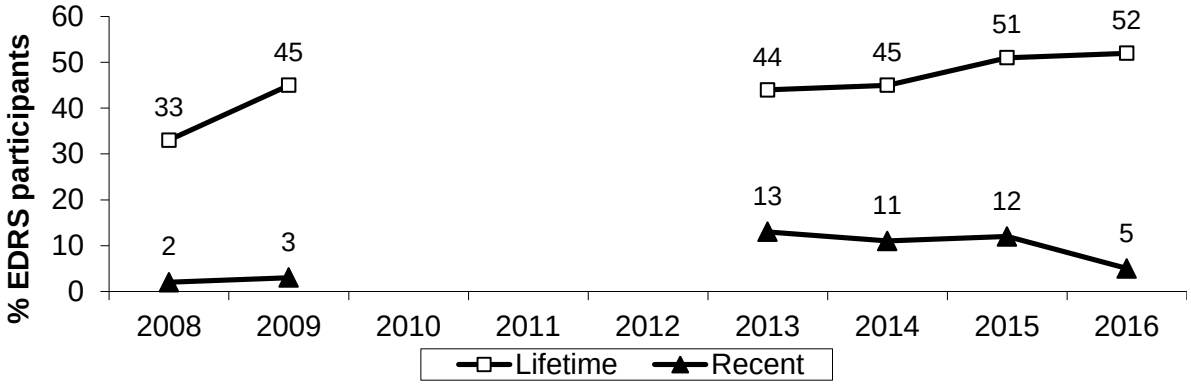
Opiate use in other populations

A separate monitoring system investigating trends in the use of opioids in PWID has been conducted in NSW since 1996, VIC and SA since 1997, and nationally since 2000. This is called the IDRS, and reports and bulletins are available from the Drug Trends website (http://www.drugtrends.org.au/reports/?p=IDRS).

4.9.9 Mushrooms

Half (52%) of the EDRS participants interviewed in 2016 reported having ever used mushrooms and 5% had done so over the preceding six months (Figure 26). Due to small numbers reporting recent use patterns, this data has not been presented.

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



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

4.9.10 Pharmaceutical stimulants

Licit pharmaceutical stimulants

Five participants reported having used licitly obtained pharmaceutical stimulants and two participants had used them recently.

Illicit pharmaceutical stimulants

Over one-third (39%) had ever used illicitly obtained pharmaceuticals and 14 participants had done so over the preceding six months.

4.9.11 Over the counter drugs

Codeine

Twenty-four 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 (11%) reported having done so over the preceding six months. Recent users reported using OTC codeine on a median of 2 days (range=1–30), with all participants reporting that they had only swallowed them.

Stimulants

Thirteen percent of the sample reported having ever used over the counter stimulants (such as Sudafed and Codral) for non-medicinal use and seven participants (7%) had used them recently. Given such a small sample of recent users, details regarding frequency and quantity of use are not presented.

4.9.12 Antipsychotics

Nine participants in 2016 reported having ever used antipsychotics and three had used antipsychotics recently. Given such a small sample of recent users, details regarding frequency and quantity of use are not presented.

4.9.13 Performance and image enhancing drugs (PIED)

Twelve participants reported lifetime use of steroids, six of whom reported steroid use in the preceding six months in the 2016 NT EDRS sample. Due to a small sample of recent users, data on frequency and quantity of use are not presented.

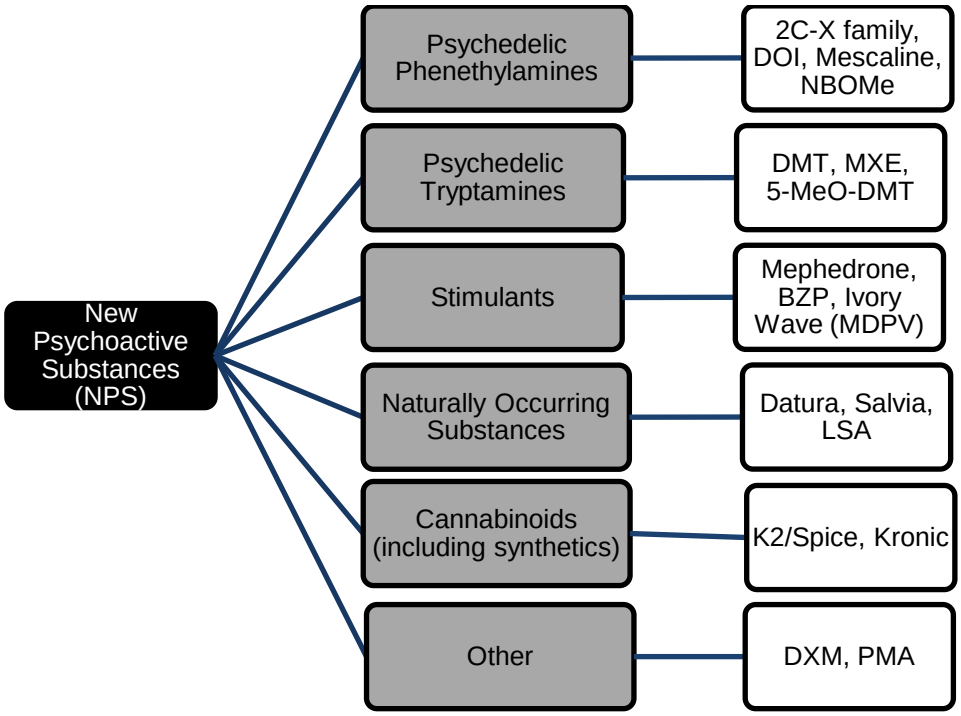
4.10 New psychoactive substance (NPS) use

Summary:

- One-third reported using NPS in the last six months.
- The most common psychoactive substances used among Darwin EDRS participants included other synthetic cannabinoids, DMT and herbal highs.

From 2010 onward, the EDRS 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



Psychedelic refers to "a mental state of enlarged consciousness, involving a sense of aesthetic joy and increased perception transcending verbal concepts" or "denoting or relating to any of a group of drugs inducing such a state, especially LSD" (Macquarie Dictionary). Phenethylamine is a neurotransmitter that is an amine resembling amphetamine in structure and pharmacological properties. Derivatives of phenethylamine are referred to as phenethylamines (Merriam-Websters Medical Dictionary). Tryptamine is a crystalline amine derived from tryptophan. Substituted derivatives of this amine, some of which are significantly hallucinogenic or neurotoxic, are known as 'tryptamines' (Merriam-Websters Medical Dictionary).

Table 12 provides a very brief introduction to these drugs to provide a rough guide for interpreting trends data. Interested readers are directed toward online sources such as Erowid (http://www.erowid.org/splash.php) and Drugscope (http://www.drugscope.org.uk/) for more comprehensive information on these drugs.

Table 12: New psychoactive substances

Street name	Chemical name	Information on drug	Information on use and effects
Psychedelic Phenethylamines			
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-ethylphenethyl-amine	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-trimethoxyphene-thylamine	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.
Psychedelic Tryptamines			
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 12: New psychoactive substances (continued)

Street name	Chemical name	Information on drug	Information on use and effects
Stimulants			
Mephe-drone	4-methyl-methcathin-one	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	Methylenedioxypyrov-alerone (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 users the numbing sensation in the mouth or nose, which is associated with drugs of high purity (e.g. high-purity cocaine).[8]
Naturally Occurring Substances			
Datura	Commonly *Datura inoxia* and *Datura strammonium.* Contains Atropine and Scopolamine. Also known as Angel's Trumpet	Atropine is a potent anticholinergic agent. Scopolamine is a CNS depressant and has antimuscarinic properties	The plant's effects make the user feel drowsy, drunk-like and detached from things around them. They can also bring on hallucinations**.** Doses are difficult to judge and can cause unconsciousness and death.[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 12: New psychoactive substances (continued)

Street name	Chemical name	Information on drug	Information on use and effects
Naturally Occurring Substances (continued)			
Salvia	*Salvia divinorum* (contains Salvinorin A)	Salvia is derived from the American plant *Salvia divinorum*, 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	*d*-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.
Other Psychoactive Substances			
DXM	Dextromethorphan	A semisynthetic opiate derivative which is legally available over the counter in the US	Commonly found in cough suppressants, especially those with 'DM' or 'Tuss' in their names. It is a dissociative drug that is almost always used orally, although pure DXM powder is occasionally snorted. Recreational doses range from 100–1,200mg or more.[11]
PMA	Paramethoxyamphetamine; 4-methoxy-amphetamine	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-*N*-methylcathinone	An entactogen and stimulant of the phenethylamine, amphetamine, and cathinone classes	Reported dosages range from 100-250mg orally. Effects are primarily psychostimulant 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 2016 NT EDRS sample, 31% reported using NPS in the last six months. The most common NPS ever used among participants were synthetic cannabinoids (32%), DMT (27%) and herbal highs (18%). Similarly, the most common NPS recently used were DMT (16%), synthetic cannabinoids (15%) and herbal highs (8%) (Table 13). Compared to 2015, a number of significant trends were identified. Significantly fewer participants in 2016 reported lifetime use of mephedrone and saliva and recent use of 2C-B, whereas a significantly greater proportion reported recent use of DMT.

Table 13: NPS use among EDRS participants, NT

	2013 (N=45)	2014 (N=100)	2015 (N=101)	2016 (N=100)
Synthetic cannabinoids[a]				
ever used (%)		N/A		**32**
used last 6 months (%)				**15**
DMT				
ever used (%)	16	15	21	**27**
used last 6 months (%)	2	8	6	**16↑**
Herbal highs				
ever used (%)	33	11	16	**18**
used last 6 months (%)	18	3	8	**8**
2C-B				
ever used (%)	9	8	20	**11**
used last 6 months (%)	2	2	11	**2↓**
DXM				
ever used (%)	4	4	9	**10**
used last 6 months (%)	0	3	6	**7**
Mephedrone				
ever used (%)	7	16	21	**8↓**
used last 6 months (%)	2	5	3	**0**
Methylone				
ever used (%)	4	5	7	**7**
used last 6 months (%)	4	2	5	**1**
Mescaline				
ever used (%)	7	1	6	**7**
used last 6 months (%)	4	0	0	**0**
Salvia				
ever used (%)	7	18	19	**6↓**
used last 6 months (%)	4	5	2	**0**
2C-I				
ever used (%)	7	11	7	**4**
used last 6 months (%)	2	3	1	**1**

Note: N/A: Data not collected. [a]In years prior to 2016, synthetic cannabinoids were reported separately as Kronic, K2/Spice, and other synthetic cannabinoids. ↑ significant increase (95% CI $p<0.05$) from 2015 to 2016; ↓ significant decrease (95% CI $p<0.05$) from 2015 to 2016.

Table 13: NPS use among EDRS participants, NT (continued)

	2013 (N=45)	2014 (N=100)	2015 (N=101)	2016 (N=100)
LSA				
ever used (%)	2	2	2	**4**
used last 6 months (%)	0	1	2	**1**
Datura				
ever used (%)	2	2	1	**3**
used last 6 months (%)	0	0	0	**1**
BZP				
ever used (%)	4	0	2	**3**
used last 6 months (%)	0	0	0	**0**
Methoxetamine / MXE				
ever used (%)	0	0	3	**2**
used last 6 months (%)	0	0	0	**1**
Ayahuasca				
ever used (%)		N/A		**2**
used last 6 months (%)				**1**
MDPV / Ivory Wave				
ever used (%)	2	3	4	**1**
used last 6 months (%)	2	0	2	**0**
2C-E				
ever used (%)	0	5	3	**1**
used last 6 months (%)	0	0	0	**0**
PMA				
ever used (%)	0	1	4	**1**
used last 6 months (%)	0	0	0	**0**
Alpha PVP				
ever used (%)		N/A		**1**
used last 6 months (%)				**0**
NBOMe				
ever used (%)	N/A	3	5	**0**
used last 6 months (%)		3	2	**0**
5-MeO-DMT				
ever used (%)	0	2	1	**0**
used last 6 months (%)	0	1	0	**0**
Benzo Fury / 6-APB				
ever used (%)	0	2	0	**0**
used last 6 months (%)	0	1	0	**0**

Note: N/A: Data not collected.

Table 13: NPS use among EDRS participants, NT (continued)

	2013 (N=45)	2014 (N=100)	2015 (N=101)	2016 (N=100)
MDAI				
ever used (%)	0	1	1	**0**
used last 6 months (%)	0	0	1	**0**
5-IAI				
ever used (%)	0	0	0	**0**
used last 6 months (%)	0	0	0	**0**
DOI (Death on Impact)				
ever used (%)	0	0	0	**0**
used last 6 months (%)	0	0	0	**0**
Other substituted cathinone				
ever used (%)	N/A	0	2	**0**
used last 6 months (%)		0	0	**0**
Etizolam				
ever used (%)		N/A		**0**
used last 6 months (%)				**0**
4-FA				
ever used (%)		N/A		**0**
used last 6 months (%)				**0**
4-AcO-DMT				
ever used (%)		N/A		**0**
used last 6 months (%)				**0**
4-MEC				
ever used (%)		N/A		**0**
used last 6 months (%)				**0**

Source: EDRS participant interviews 2013, 2014, 2015, 2016
Note: N/A: Data not collected.

Key expert comments

Two health KE reported decreasing popularity of NPS in the last 12 months, which was driven by the bad reactions experienced by users and the legislative ban on sales of NPS in retail stores.

5 DRUG MARKET: PRICE, PURITY, AVAILABILITY

5.1 Ecstasy

Summary:

Pills, powder and capsules

- *Price*: $35 per pill, $38 per capsule, stable.
- *Purity*: Currently medium and fluctuating.
- *Availability*: Currently easy to very easy to obtain and stable.

MDMA crystal

- *Price*: $320 per gram, stable.
- *Purity*: Currently high and stable.
- *Availability*: Currently easy to very easy to obtain and stable.

- KE reported that ecstasy was easily accessible.

5.1.1 Price

The majority (95%) of participants were able to comment on the price of ecstasy in Darwin. The median price was reported by users to be $35 per pill (range=$8–300), $250 per gram of powder (range=$20–350), $38 per capsule (range=$12–50) and $320 per gram of MDMA crystal (range=$35–800) (Table 14).

In relation to price changes of various ecstasy forms over the six months preceding the interview, the majority felt that ecstasy pills, powder and capsules had either remained stable (50%) or fluctuated (30%), whereas the majority reported that the price of MDMA crystal had remained stable (69%). These trends have remained stable since 2015.

Table 14: Median price of ecstasy forms and price changes as reported by EDRS participants, NT

	2008 (N=55)	2009 (N=67)	2013 (N=45)	2014 (N=100)	2015 (N=101)	2016 (N=100)
Median price $ (range)						
Per pill	50 (30–50)	50 (17–70)	35 (15–50)	40 (20–60)	40 (15–67)	**35 (8–300)**
Per gram powder	N/A	N/A	N/A	350 (40–600)^	250 (60–400)^	**250 (20–350)**
Per capsule	N/A	N/A	N/A	40 (25–70)	45 (20–60)	**38 (12–50)^**
Per gram crystal	N/A	N/A	N/A	400 (40–600)	300 (20–450)	**320 (35–800)**
Price change of ecstasy pills, powder, capsules:						
Increased (%)	0	5	23	28	15	**11**
Stable (%)	80	83	50	52	48	**50**
Decreased (%)	4	3	4	7	9	**10**
Fluctuated (%)	9	9	23	13	28	**30**
Price change of crystal:	Data not available until 2014					
Increased (%)				6	3	**13**
Stable (%)				70	69	**69**
Decreased (%)				6	10	**6**
Fluctuated (%)				18	17	**13**

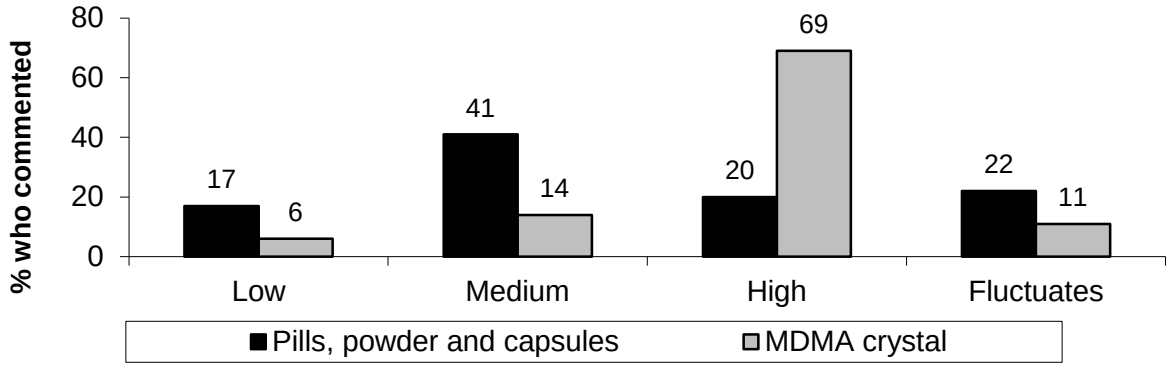
Source: EDRS participant interviews 2008, 2009, 2013, 2014, 2015, 2016
Note: Response option 'don't know' was removed from analyses from 2010 onward
^ Small numbers reporting, interpret with caution
N/A: No data available

5.1.2 Purity

Current purity

Figure 28 presents EDRS participants' reports of ecstasy purity in 2016. As illustrated, there was less agreement on the purity of ecstasy pills, powder and capsules compared to MDMA crystals. The largest proportion reported that pills, powder and capsules were of medium purity (41%). The largest proportion of participants clearly indicated that MDMA crystal was of high purity (69%). These trends have remained stable since 2015.

Figure 28: EDRS participants' reports of current ecstasy purity, NT

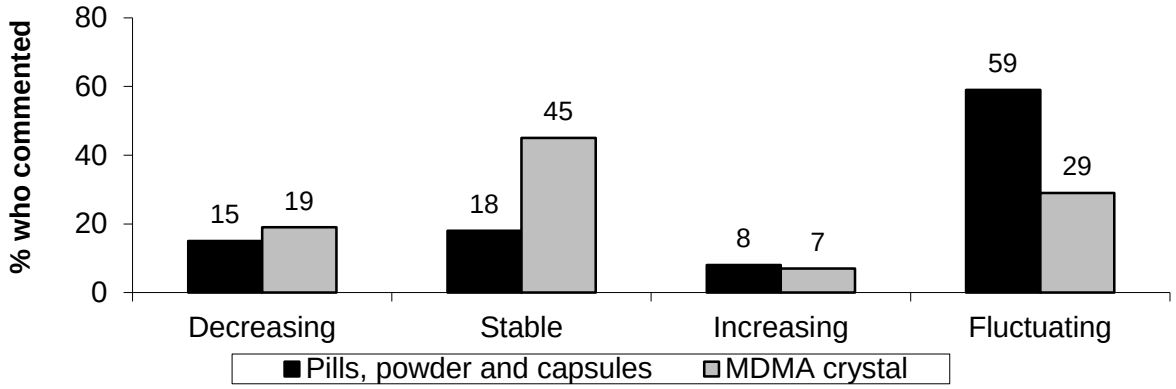


Source: EDRS participant interviews 2016
Note: Response option 'don't know' was removed from analyses from 2010 onward
* Of those who commented (pills, powder and capsules n=95; MDMA crystal n=35).

Purity change

Figure 29 presents EDRS participants' reports of changes in the purity of ecstasy over the six months prior to the interview. Over half of the sample reported that the purity of ecstasy pills, powder and capsules had fluctuated (59%). Unlike 2015 when participants reported that the purity of MDMA crystal had remained mostly stable (70%), in 2016 the majority of participants reported that MDMA crystal purity had been either stable (45%) or had fluctuated (29%).

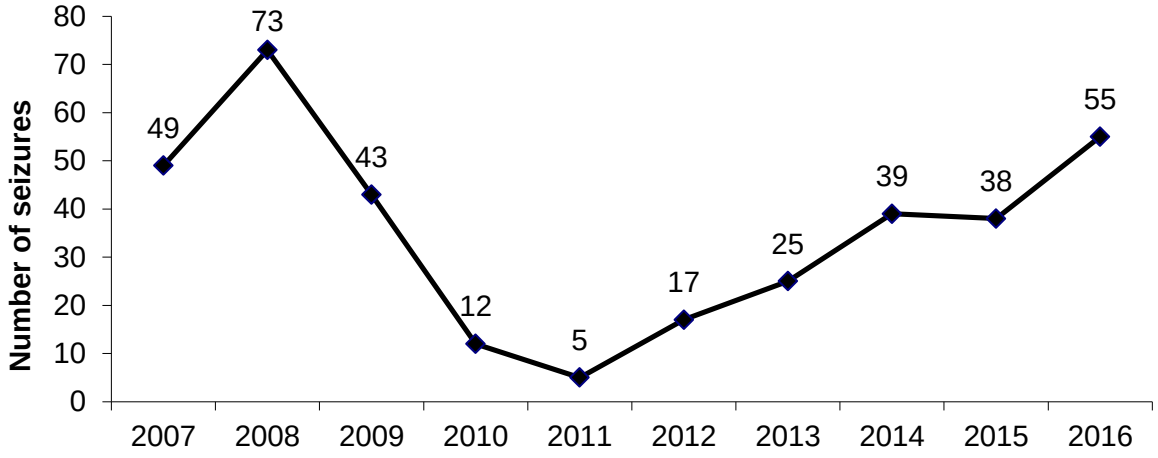
Figure 29: EDRS participants' reports of changes in ecstasy purity in the past six months*, NT



Source: EDRS participant interviews 2016
Note: 'Don't know' responses removed
* Of those who commented (pills, powder and capsules n=91; MDMA crystal n=31).

Figure 30 presents data on the number of ecstasy seizures made by NT police. It should be noted that the data does not relate to purity, and the drug name under which the seizure is coded is the drug that it is traded as. From 2011 to 2016, there was an upward trend in the number of ecstasy seizures in the NT, with 55 seizures recorded for 2016.

Figure 30: Number of ecstasy seizures, NT, 2007–2016

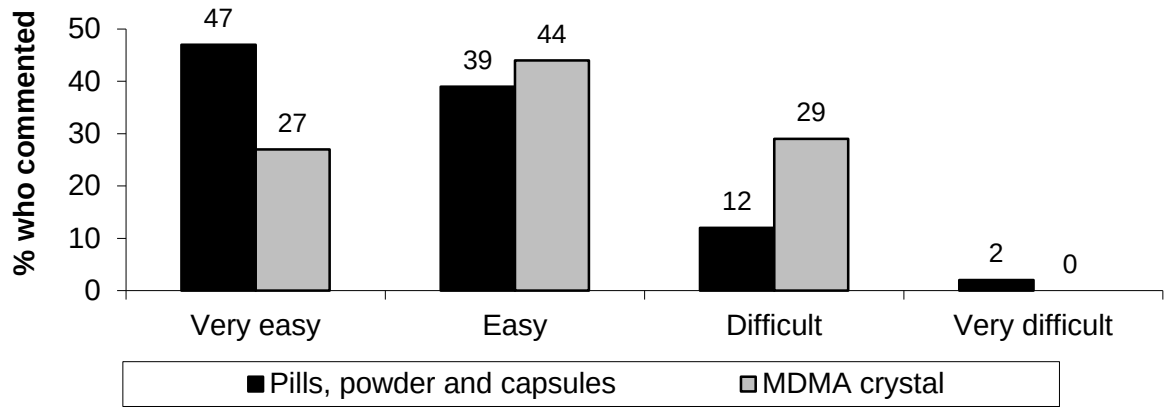


Source: NT Police Real-time Online Management Information System (PROMIS)
Note: Drugs are classified according to information available to police at the time of seizure.

5.1.3 Availability

The majority (86%) of EDRS participants reported that it was currently 'easy' or 'very easy' to obtain ecstasy pills, powder or capsules. Similarly, although to a lesser extent, it was reported that MDMA crystal was also relatively easy to obtain (71%) (Figure 31).

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

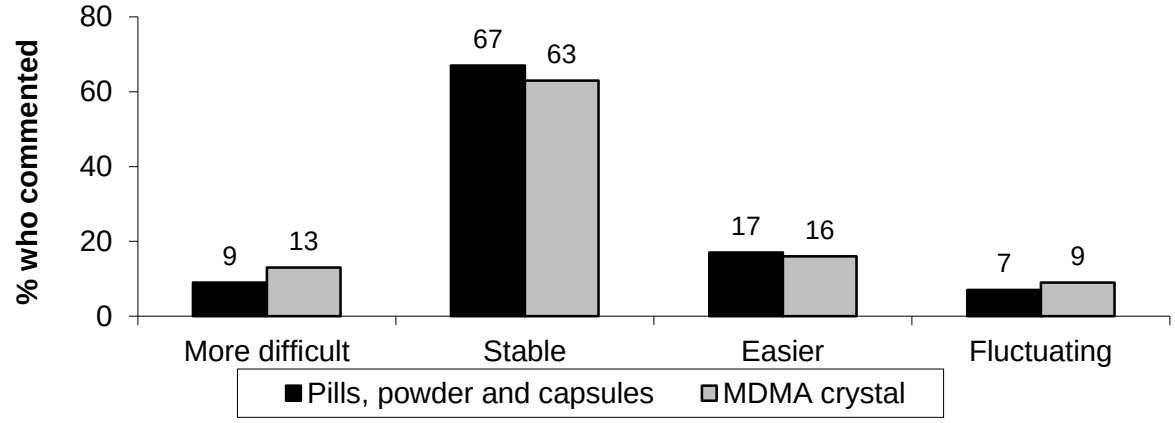


Source: EDRS participant interviews 2016
Note: Response option 'don't know' was removed from analyses from 2010 onward
* Of those who commented (pills, powder and capsules n=95; MDMA crystal n=34).

Availability change

Figure 32 presents EDRS participants' reports of changes in the availability of ecstasy over the six months prior to the interview. The majority of the sample reported the availability of both ecstasy pills, powder and capsules and MDMA crystal to be stable (67% and 63% respectively), an increase compared to 2015 (58% and 55% respectively).

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



Source: EDRS participant interviews 2016
Note: 'Don't know' responses removed
* Of those who commented (pills, powder and capsules n=94; MDMA crystal n=32).

Key expert comments

A number of KE reported that ecstasy was easily accessible in the NT. KE reported that an ecstasy pill sold for $30 to $40, depending on the purity.

5.2 Methamphetamine

Summary:

Speed

- *Price*: $300 per gram and stable.
- *Purity*: Currently high and mostly stable.
- *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.
- *Purity*: Currently high and fluctuating.
- *Availability*: Currently 'very easy' to obtain, stable.

- KE reported price of crystal methamphetamine had remained stable, and was of a medium to high purity

5.2.1 Price

Speed

Eighteen participants reported on the price of speed over the six months prior to the interview (Table 15). The median price reported the last time speed was purchased was $300 per gram (range=$100–400) and $43 per point (range=$20–250). Small numbers reported on the price per point of speed and these figures must be interpreted with caution. The majority of participants who commented believed the price of speed had either remained stable (47%) or decreased (27%) over the preceding six months.

Base

Only three participants were able to comment on the price of base over the preceding six months. These figures are not reported due to small numbers.

Crystal methamphetamine

Twenty-eight participants were able to comment on the price of crystal methamphetamine over 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=$100–200) (Table 15). The majority of participants who commented believed the price of crystal methamphetamine had either remained stable (44%) or fluctuated (22%) over the preceding six.

Table 15: Median price of various methamphetamine forms purchased by EDRS participants, NT

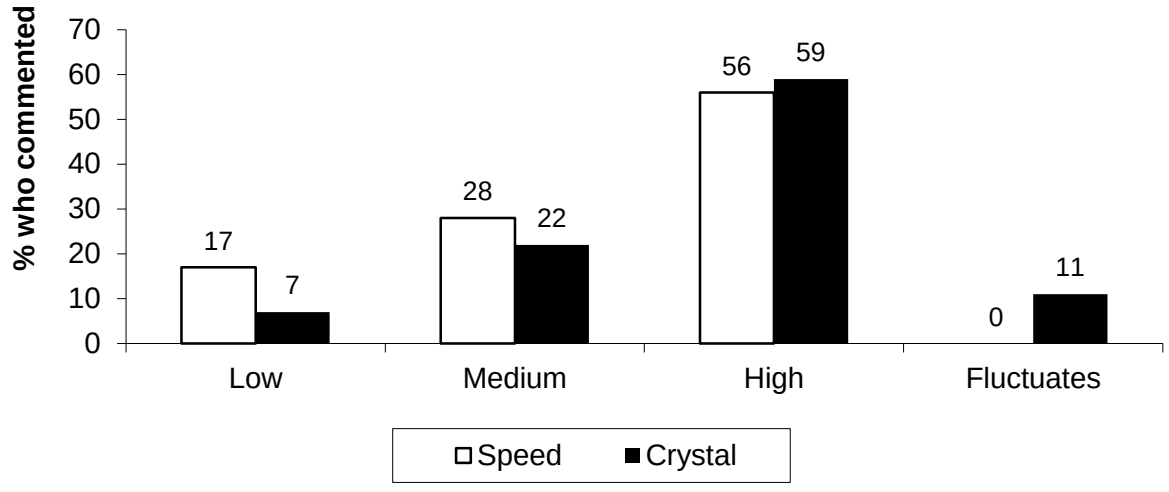
$	2008	2009	2013	2014	2015	2016
Speed	n=8	n=24	n=5	n=24	n=9	**n=18**
Point	N/A	50	N/A	100^	100^	**43^**
(range)	N/A	(50)		(60–150)	(25–500)	**(20–250)**
Gram	300^	300	N/A	350	400^	**300**
(range)	(15–700)	(100–800)		(80–900)	(300–600)	**(100–400)**
Base	n=1	n=3	n=0	n=3	n=2	n=3
Point	N/A	N/A	N/A	N/A	N/A	N/A
(range)						
Gram	N/A	N/A	N/A	N/A	N/A	N/A
(range)						
Crystal	n=0	n=3	n=4	n=19	n=21	n=28
Point	N/A	N/A	N/A	150^	150	100
(range)				(80–400)	(100–180)	(100–200)
Gram	N/A	N/A	N/A	850^	800^	700^
(range)				(30–1200)	(600–1200)	(2500–1000)

Source: EDRS participant interviews 2008, 2009, 2013, 2014, 2015, 2016
^ Small numbers reporting, interpret with caution
N/A: Due to small numbers reporting, these figures were not reported.

5.2.2 Purity

Figure 33 illustrates that the current purity of speed and crystal forms of methamphetamine was medium to high, with a greater proportion reporting that crystal methamphetamine was currently high in purity. These trends have remained stable since 2015.

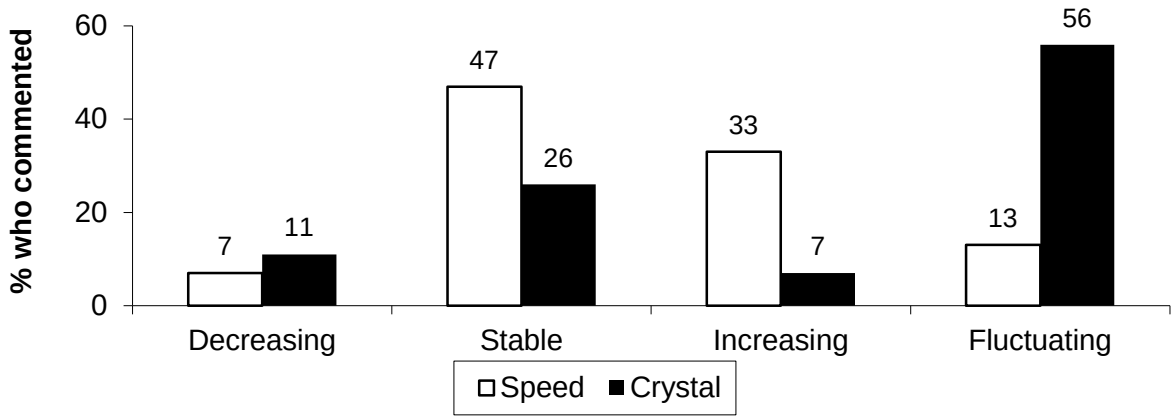
Figure 33: EDRS participants' reports of current methamphetamine purity*, NT



Source: EDRS participant interviews 2016
Note: 'Don't know' responses removed
* Of those who commented (speed n=18; crystal methamphetamine n=27). Due to base n=3, numbers were too small to report.

Figure 34 presents data on the perceived change in purity of the forms of methamphetamine over the six months preceding the interview. As in previous years, the reported purity of speed and crystal methamphetamine were mixed. The largest proportion of participants reported speed purity as stable (47%) and increasing (33%), which is in contrast to 2015 where the majority of participants reported it as stable or decreasing. In 2016, participants reported that crystal methamphetamine purity had fluctuated over the past six months (56%).

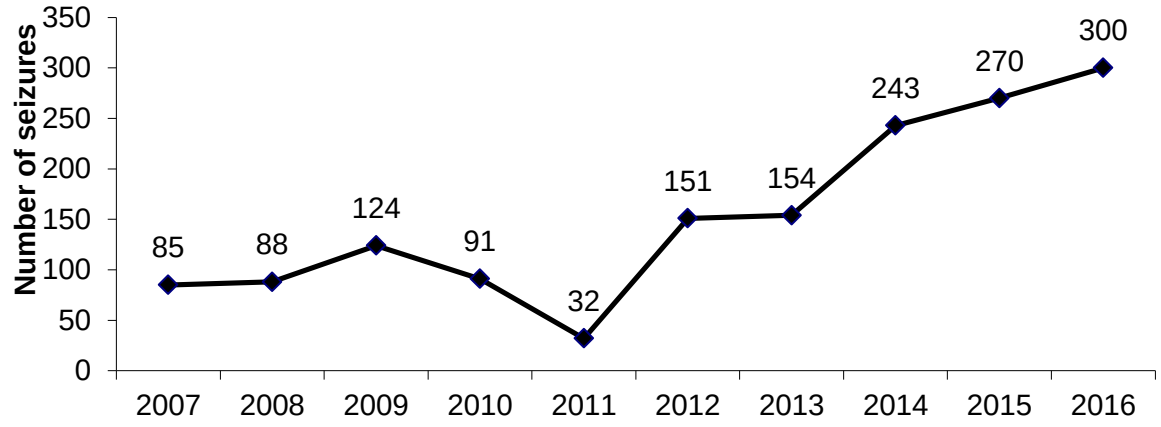
Figure 34: EDRS participants' reports of changes in methamphetamine purity in the past six months*, NT



Source: EDRS participant interviews 2016
Note: 'Don't know' responses removed
* Of those who commented (speed n=15; crystal methamphetamine n=27). Due to base n=3, numbers were too small to report.

Figure 35 presents data on the number of amphetamine/methamphetamine seizures made by NT police. It should be noted that the data does not relate to purity, and the drug name under which the seizure is coded is the drug that it is traded as. The number of amphetamine/methamphetamine seizures in the NT has risen markedly since 2011, with 2016 data indicating that 300 amphetamine/ methamphetamine seizures had been made in the NT during the year.

Figure 35: Number of amphetamine/methamphetamine seizures, NT, 2007–2016

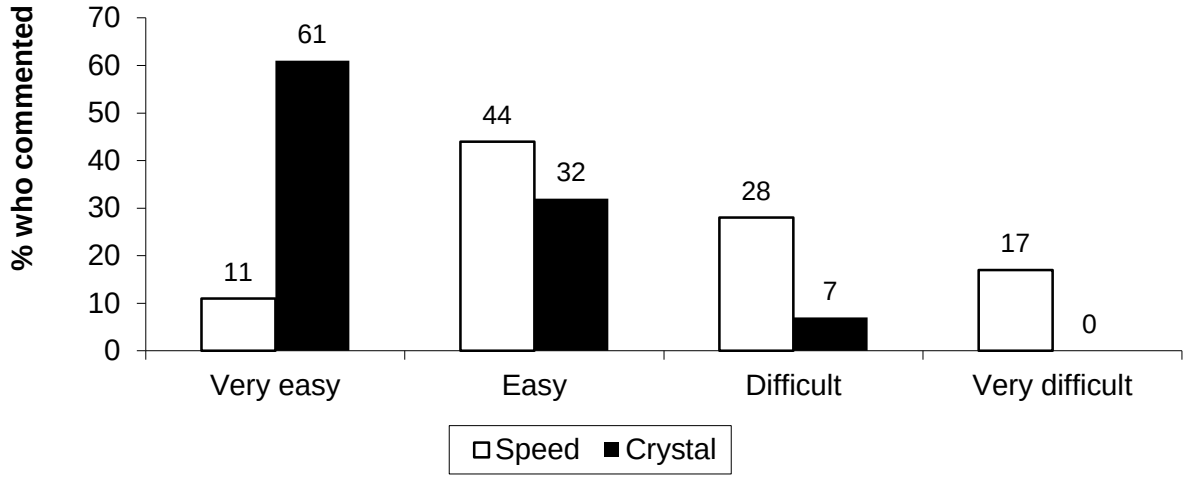


Source: NT Police Real-time Online Management Information System (PROMIS)
Note: Drugs are classified according to information available to police at the time of seizure.

5.2.3 Availability

Crystal methamphetamine was reported to be easily available among Darwin participants, with the majority of users reporting it to be 'very easy' to obtain. The availability of speed appeared to be mixed; approximately one-half reported that speed was currently easily available and the other half reported some level of difficulty accessing it (Figure 36). These trends have remained stable since 2015.

Figure 36: EDRS participants' reports of current availability of methamphetamine forms*, NT



Source: EDRS participant interviews 2016
Note: 'Don't know' responses removed
* Of those who commented (speed n=18; crystal methamphetamine n=28). Due to base n=3, numbers 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 (53%) or more difficult (29%). For crystal methamphetamine, participants reported availability had remained mostly stable (82%).

Key expert comments

KE reported the price of crystal methamphetamine had remained stable, and was of a medium to high purity.

5.3 Cocaine

Summary:

- *Price*: $350 per gram and mostly stable.
- *Purity*: Low to medium and fluctuating.
- *Availability*: Mixed reports on the ease of accessibility of cocaine, which is stable with previous trends.

5.3.1 Price

Twenty-four participants were able to comment on the price of cocaine in the NT. The median price per gram was $350 (range=$40–750) (Table 16). The majority of participants (60%) who commented on whether the price of cocaine had changed in the NT over the preceding six months reported that it had remained stable, with the remaining 40% reporting it had fluctuated.

Table 16: Median price of cocaine purchased by EDRS participants, NT

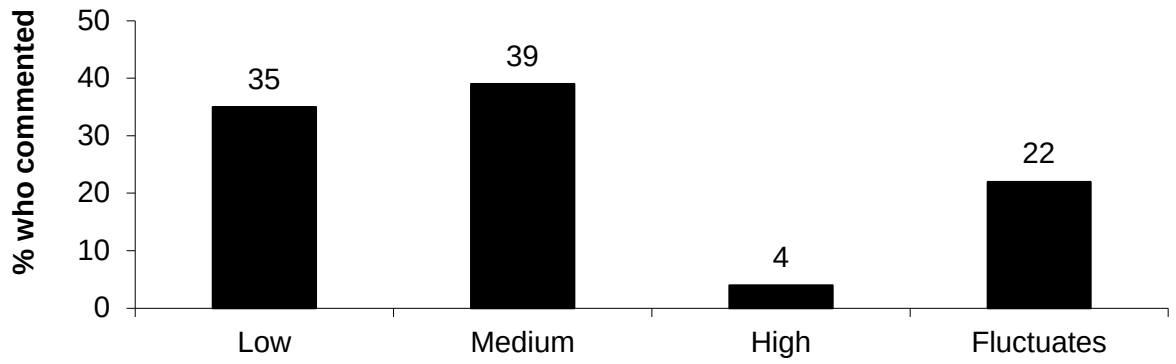
$	2008 (n=2)	2009 (n=5)	2013 (n=6)	2014 (n=13)	2015 (n=14)	2016 (n=24)
Per gram (range)	350^ (300–400)	325^ (50–350)	325^ (300–450)	350 (100–800)	300 (50–450)	**350 (40–750)**

Source: EDRS participant interviews 2008, 2009, 2013, 2014, 2015, 2016
^ Small numbers reporting, interpret with caution

5.3.2 Purity

Twenty-three EDRS participants were able to comment on the current purity of cocaine. Most participants reported cocaine purity as either 'low' (35%) or 'medium' (39%), with a sizable proportion reporting it had 'fluctuated' (22%). In keeping with these trends, participants reported that over the past six months, the purity overall had fluctuated (52%) or remained stable (38%).

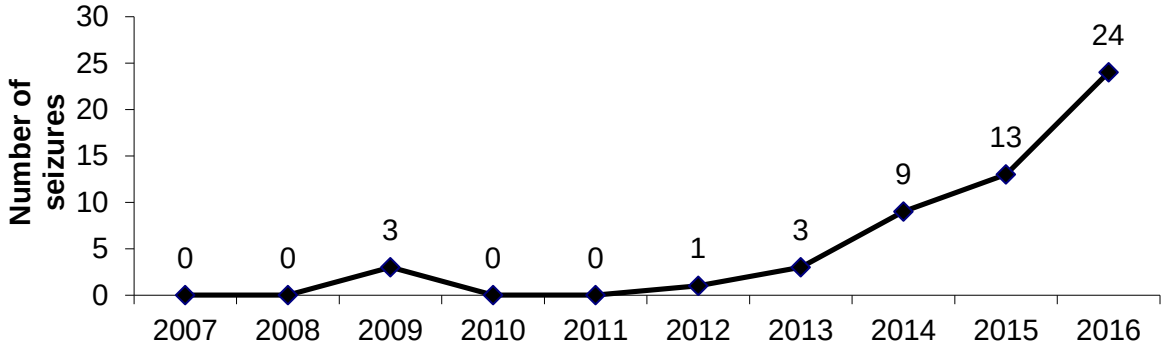
Figure 37: EDRS participants' reports of current purity of cocaine*, NT



Source: EDRS participant interviews 2016
Note: Response option 'don't know' was removed from analyses
* Of those who commented (n=23)

Figure 38 presents data on the number of cocaine seizures made by NT police. It should be noted that the data does not relate to purity, and the drug name under which the seizure is coded is the drug that it is traded as. The number of cocaine seizures has increased from a low base in the NT, with 24 cocaine seizures recorded during 2016.

Figure 38: Number of cocaine seizures, NT, 2007–2016

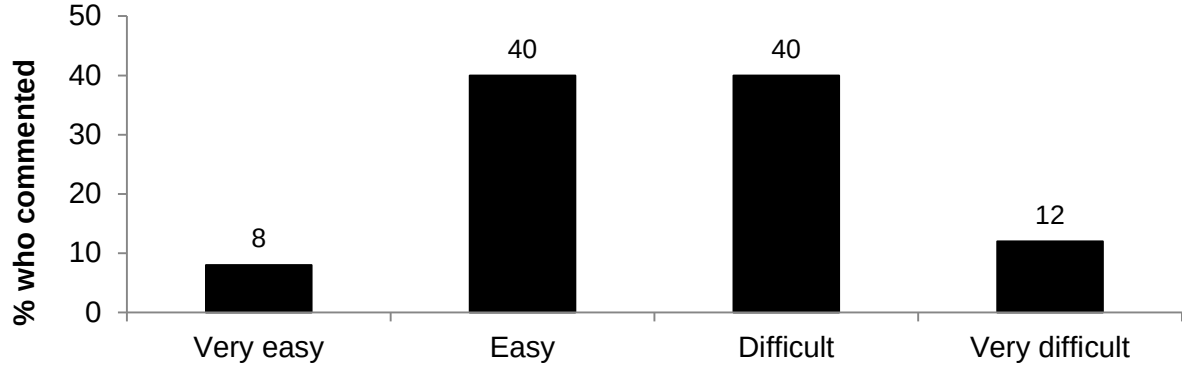


Source: NT Police Real–time Online Management Information System (PROMIS)
Note: Drugs are classified according to information available to police at the time of seizure.

5.3.3 Availability

Twenty-five 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 39). The majority stated that the availability of cocaine had remained stable over the preceding six months (65%).

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



Source: EDRS participant interviews 2016
Note: Response option 'don't know' was removed from analyses
* Of those who commented (n=25)

Key expert comments

KE commented that cocaine availability, and consequently use, had increased.

5.4 LSD

Summary:

- *Price*: $30 per tab and mostly stable.
- *Purity*: Currently high and fluctuating.
- *Availability*: Currently 'easy' to 'very easy', and stable.

5.4.1 Price

Twenty-one participants reported on the price of LSD (Table 17). The median price last paid for a tab of LSD was $30 (range=$2–50). The majority reported that the price had either remained stable (46%) or fluctuated (27%) over the past six months.

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

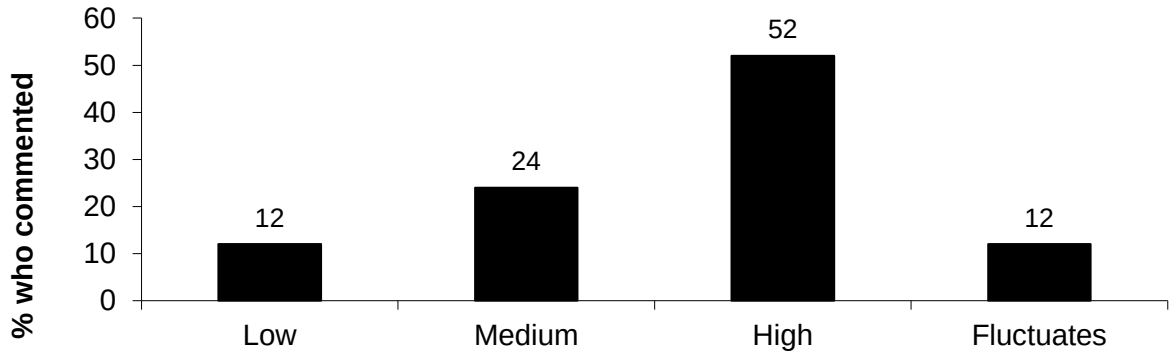
$	2008 (n=5)	2009 (n=3)	2013 (n=9)	2014 (n=23)	2015 (n=21)	2016 (n=21)
Per tab	20^	25^	35^	25	25	**30**
(range)	(15–20)	(20–40)	(20–50)	(10–40)	(8–50)	**(2–50)**

Source: EDRS participant interviews 2008, 2009, 2013, 2014, 2015, 2016
^ Small numbers reporting, interpret with caution

5.4.2 Purity

Twenty-five participants commented on the purity of LSD. Of these, 52% reported that LSD was currently of 'high' purity and 24% reported 'medium' purity (Figure 40). Half of the participants reported that the purity of LSD had fluctuated over the past six months (50%), with smaller proportions reporting it had increased (23%) or remained stable (18%).

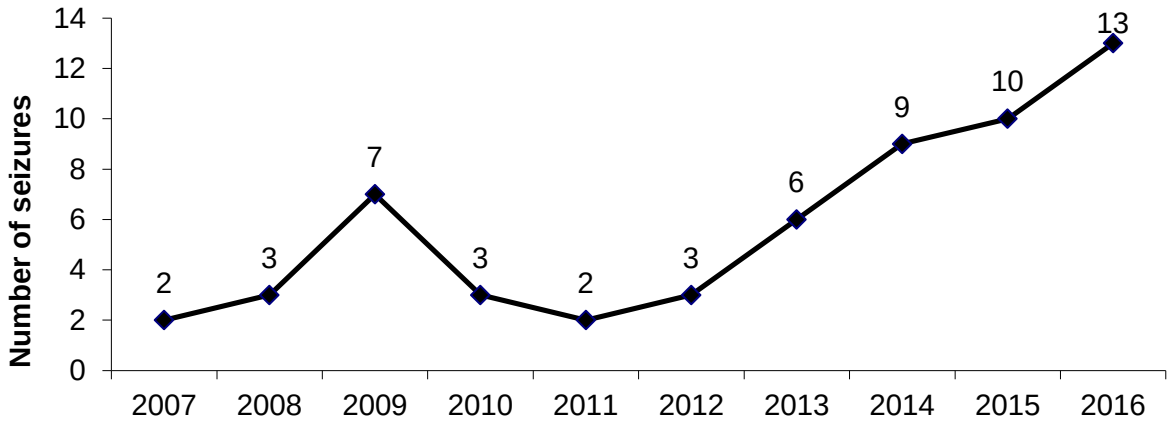
Figure 40: EDRS participants' reports of current purity of LSD*, NT



Source: EDRS participant interviews 2016
Note: Response option 'don't know' was removed from analyses
* Of those who commented (n=25)

Figure 41 presents data on the number of LSD seizures made by the NT police. It should be noted that the data does not relate to purity, and the drug name under which the seizure is coded is the drug that it is traded as, and has not been forensically tested. Overall, LSD seizure numbers have remained low over time in the NT, with 13 seizures recorded in 2016.

Figure 41: Number of LSD seizures, NT, 2007–2016

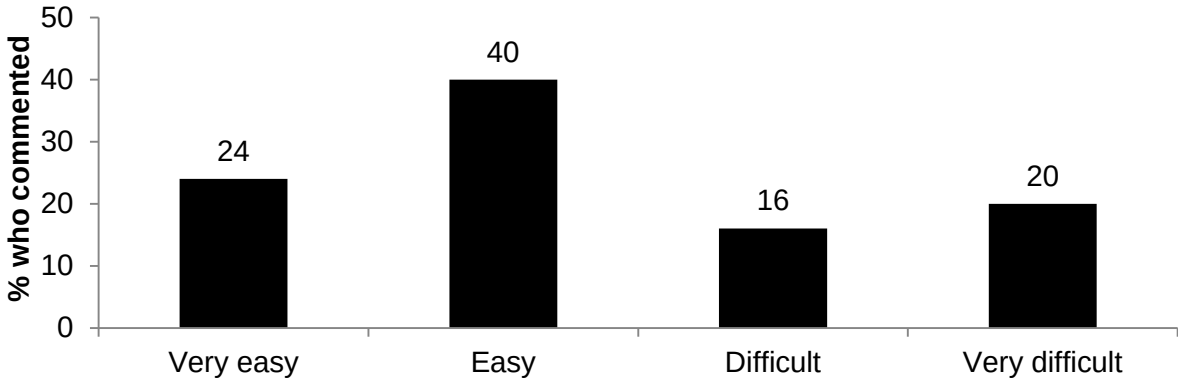


Source: NT Police Real-time Online Information Management System (PROMIS)
Note: Drugs are classified according to information available to police at the time of seizure; however, no toxicological analyses are undertaken to establish the content of drugs found.

5.4.3 Availability

Twenty-five participants commented on the availability of LSD. The majority of respondents (64%) reported that LSD was currently 'very easy' or 'easy' to obtain (Figure 42), which was in contrast to 2015 where 65% of participants reported LSD had been difficult to obtain. Half of those who commented on availability of LSD reported that it had remained stable (50%) over the past six months, with a further 21% reporting it had become easier to obtain.

Figure 42: EDRS participants' reports of current availability of LSD*, NT



Source: EDRS participant interviews 2016
Note: Response option 'don't know' was removed from analyses
* Of those who commented (n=25)

Key expert comments

KE did not provide comment on the price, purity or availability of LSD in the NT.

5.5 Ketamine

Summary:

- There was no reliable NT data reported on the price, purity or availability of ketamine for 2016.

One participant in the NT EDRS provided information on the price, purity or availability of ketamine in Darwin for 2016. Due to small numbers (n<10), these data have not been published.

Key expert comments

KE did not provide comment on the price, purity or availability of ketamine in the NT.

5.6 GHB

Summary:

- There was no NT data reported on the price, purity or availability of GHB for 2016.

One participant in the NT EDRS provided information on the price, purity or availability of GHB in Darwin for 2016. Due to small numbers (n<10), these data have not been published.

Key expert comments

KE did not provide comment on the price, purity or availability of GHB in the NT.

5.7 Cannabis

Summary:

Hydro

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

Bush

- *Price*: $30 per gram; $400 per ounce and stable.
- *Potency*: Currently low and stable.
- *Availability*: Currently 'easy' to 'very easy' to obtain and stable.

- KE reported that cannabis is readily available, and is usually supplied from interstate dealers or hydroponic grow rooms within the district.

5.7.1 Price

Table 18 presents the reported price for one ounce and one gram of hydro and bush cannabis.[13] These data should be interpreted with caution since in 2008 participants were asked to report the 'median' price paid for these quantities. From 2009 participants were asked to report what they paid the last time they purchased this amount. The prices reported in 2016 for hydro and bush have remained stable.

Table 18: Median price of hydroponic and bush cannabis purchased by EDRS participants, NT

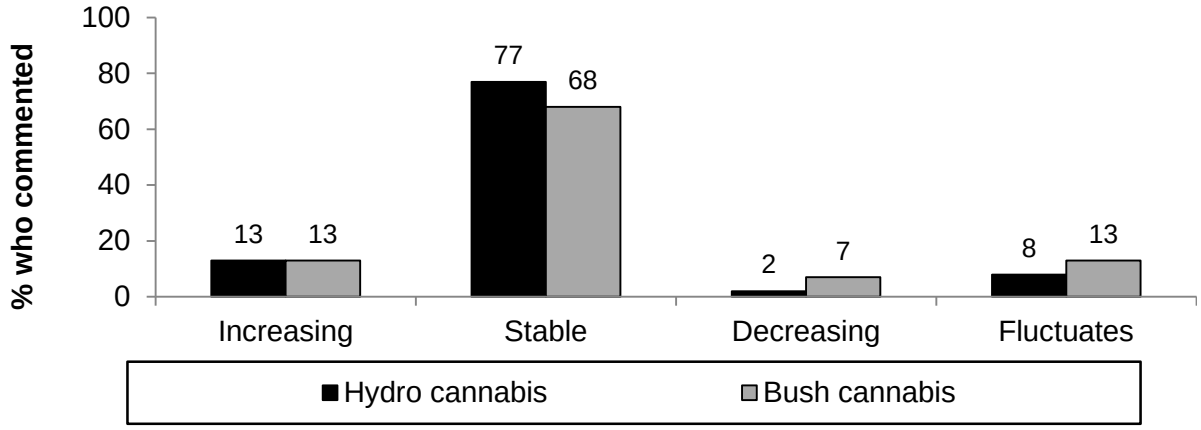
$	2008	2009	2013	2014	2015	2016
Hydro						
Per ounce (range)	n=2^ 350 (350)	n=6^ 360 (150–500)	n=3^ 320 (300–400)	n=20 450 (280–500)	n=18 450 (200–500)	n=37 400 (200–500)
Per gram (range)	n=3^ 20 (17–30)	n=8^ 30 (10–30)	n=2^ 40 (30–50)	n=21 30 (20–60)	n=16 27.5 (20–30)	n=22 30 (15–50)
Bush						
Per ounce (range)	n=3^ 300 (250–300)	n=3^ 320 (250–400)	n=2^ 200 (150–250)	n=13 400 (100–450)	n=7^ 400 (250–450)	n=16 400 (100–450)
Per gram (range)	n=3^ 20 (10–20)	n=6^ 22.5 (10–50)	n=1^ 30 (30)	n=14 30 (15–30)	n=5^ 25 (20–30)	n=10 30 (20–30)

Source: EDRS participant interviews 2008, 2009, 2013, 2014, 2015, 2016
^ Small numbers reporting, interpret with caution

Participants were asked about changes to the price of hydro and bush over the preceding six months. The vast majority reported that it had been stable for hydro (77%) and bush (68%) (Figure 43), similar to 2015 data.

[13] Data regarding the price of hash or hash oil is not presented here due to small numbers reporting.

Figure 43: EDRS participants' reports of price change of hydro and bush cannabis*, NT

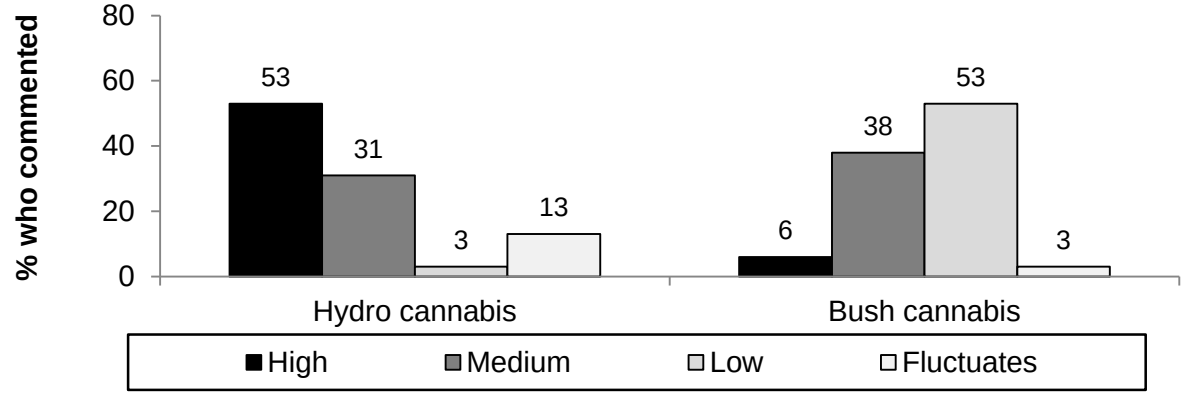


Source: EDRS participant interviews 2016
Note: 'Don't know' responses removed from analyses
* Of those who commented (n=60 for hydro, n=31 for bush)

5.7.2 Potency

Figure 44 presents participants' perceptions of the current potency of hydro and bush cannabis. The majority reported that hydro was currently of 'high' potency (53%), and the majority of those who commented on bush potency reported that it was currently of 'low' potency.

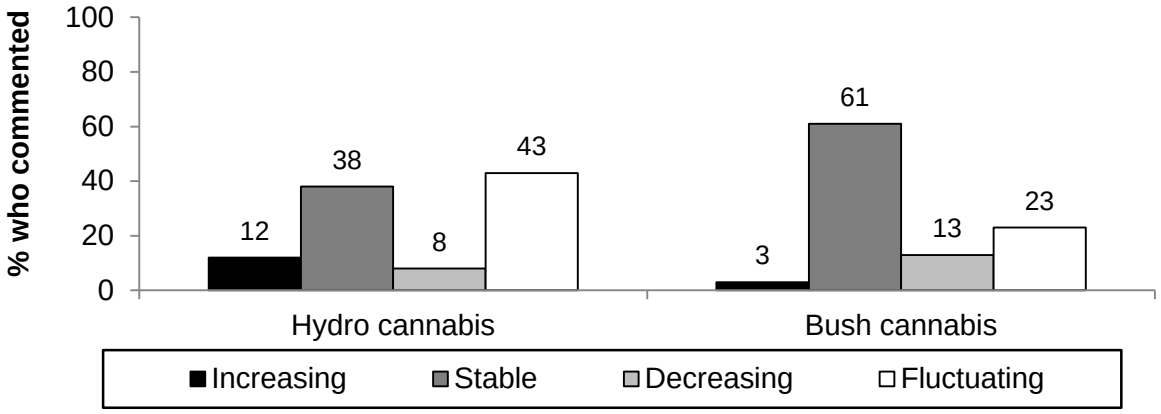
Figure 44: EDRS participants' reports of current potency of hydro and bush cannabis*, NT



Source: EDRS participant interviews 2016
* Of those who commented (n=62 for hydro, n=34 for bush)

Participants were asked to comment on changes in the potency of cannabis over the preceding six months (Figure 45). The majority of participants reported that hydro potency had either fluctuated (43%) or remained stable (38%) over the past six months. This finding is in contrast to 2015, whereby half of the participants reported hydro potency had been stable (51%). For bush potency, participants in 2016 reported that it had remained stable (61%), which was in keeping with 2015 finding.

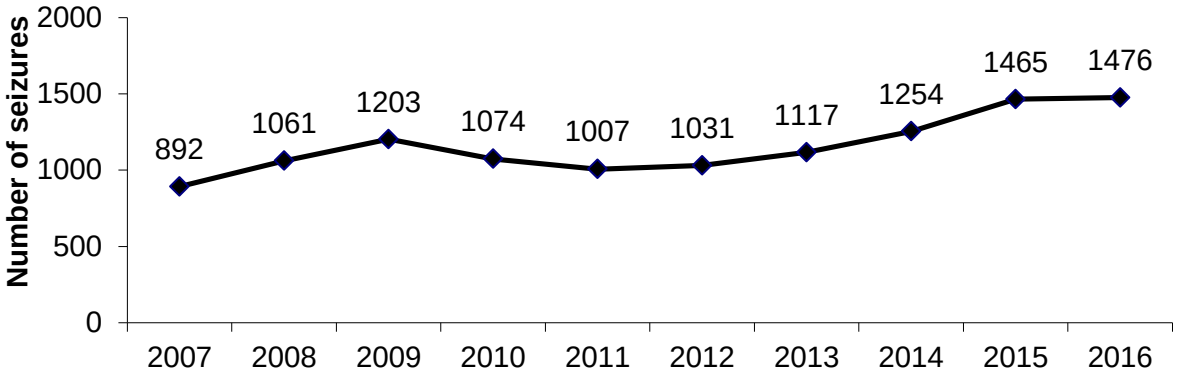
Figure 45: EDRS participants' reports of change in potency of hydro and bush cannabis over the last six months*, NT



Source: EDRS participant interviews 2016
* Of those who commented (n=61 for hydro, n=31 for bush)

Figure 46 presents data on the number of cannabis seizures made by NT police. It should be noted that the data does not relate to purity, and the drug name under which the seizure is coded is the drug that it is traded as. In the past decade there has been a steady increase in the number of cannabis seizures, with 2016 recording the highest number with 1476 seizures.

Figure 46: Number of cannabis seizures, NT, 2007–2016

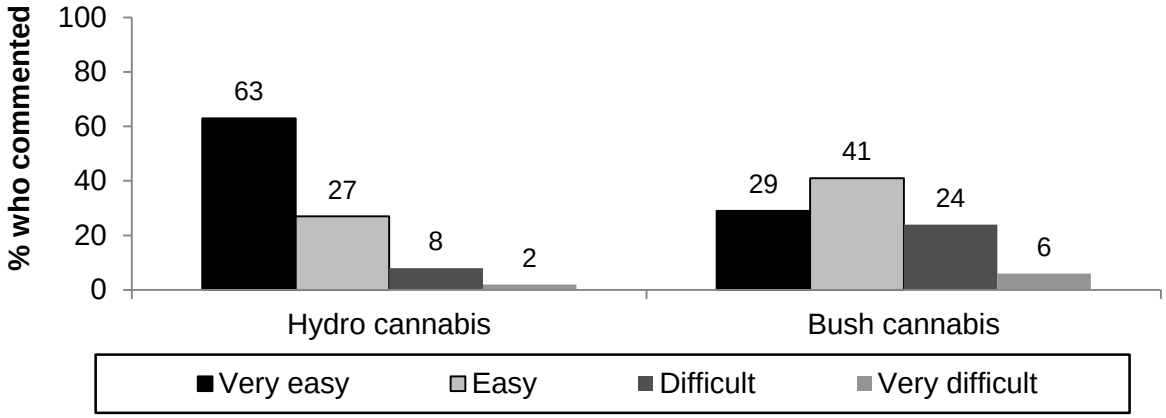


Source: NT Police Real-time Online Management Information System (PROMIS)
Note: Drugs are classified according to information available to police at the time of seizure.

5.7.3 Availability

Figure 47 presents data on how the EDRS participants reported current availability of hydro and bush. Almost all respondents believed that hydro was currently 'very easy' (63%) or 'easy' (27%) to obtain. Similarly, but not to the same extent as hydro, the majority of respondents reported that bush was 'very easy' (29%) or 'easy' (41%) to obtain in Darwin.

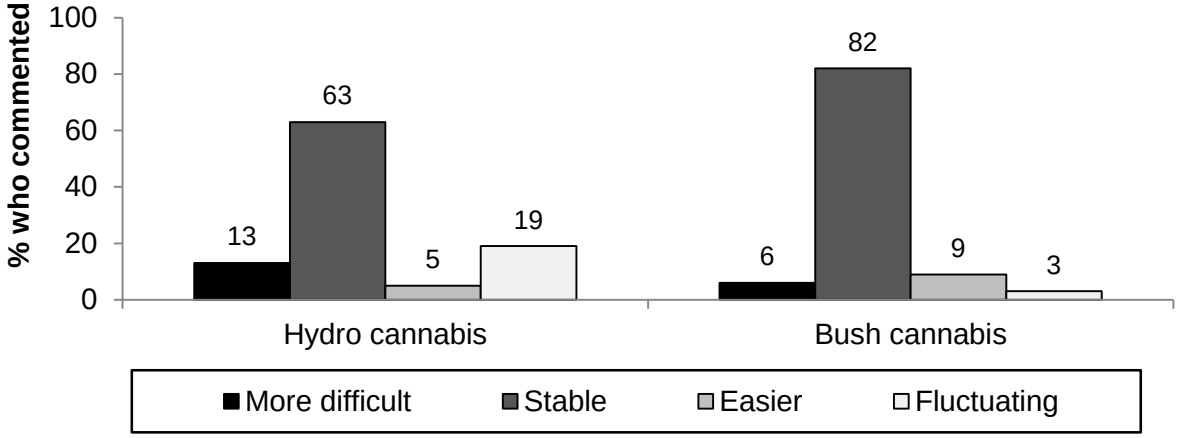
Figure 47: EDRS participants' reports of current availability of hydro and bush cannabis*, NT



Source: EDRS participant interviews 2016
* Of those who commented (n=62 for hydro, n=34 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 (63% and 82% respectively) (Figure 48). These trends have remained similar to 2015 findings.

Figure 48: EDRS participants' reports of change in availability of hydro and bush cannabis over the last six months*, NT



Source: EDRS participant interviews 2016
* Of those who commented (n=62 for hydro, n=33 for bush)

Key expert comments

KE reported that cannabis is readily available, and is usually supplied from interstate dealers or hydroponic grow rooms within the district. KE agreed that the price of cannabis had remained stable and was a medium to high purity.

6 HEALTH-RELATED TRENDS ASSOCIATED WITH ERD USE

Summary:

Overdose and hospital admissions

- One-third reported having overdosed on a stimulant drug and 14% reported a depressant drug overdose throughout their lifetime.
- Rates of amphetamine-related hospital admissions in the NT in 2014/15 have mirrored the upward trend in these admissions at a national level. It should be noted that NT rates are based on small numbers.
- Rates of hospital admissions in the NT where the principal diagnosis was cannabis increased from 2013/14.

Service usage

- Three-quarters of the sample (78%) reported accessing a health service in the past six months, mostly commonly a GP.
- Treatment episodes for ecstasy and cocaine have remained relatively low over time in the NT. In contrast, there were increases in numbers of presentations where amphetamine or cannabis was the principal drug of concern in 2014/15.

Mental health

- One-third had recently experienced a mental health problem, and half 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 RPU.

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 one-third (36%) reported having overdosed on a stimulant drug throughout their lifetime. Participants reported having experienced a median of 1.5 overdoses (range=1–100).

Nineteen participants 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 the other drugs they had used. Crystal methamphetamine (38%) or ecstasy (31%) were reported by the majority of participants as the main drug. These overdoses most commonly occurred within private settings, including at a friend's home (47%), at their own home (11%) or at a private

party (11%). Less than half of participants who overdosed reported that a sober person was present to assist them (42%).

Of the participants who overdosed within the preceding year, the most severe symptoms reported included vomiting (n=6), passing out (n=3), delirium/confusion (n=2) and extreme anxiety (n=2). Over half of these participants (58%) 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

Fourteen percent of the 2016 sample of EDRS participants reported having ever overdosed on a depressant drug. Those who had overdosed reported having done so on a median of 2 occasions (range=1–200). Ten participants reported having overdosed on a depressant drug within the year preceding the interview. All participants reported alcohol as the main drug that contributed to their most recent depressant overdose.

The ten participants were asked where they were when they last overdosed within the past 12 months. Most participants reported private locations, including their own home (n=3) or a private party (n=3). Half of the participants reported that there had been a sober person present at the time of overdose who was able to assist them (50%).

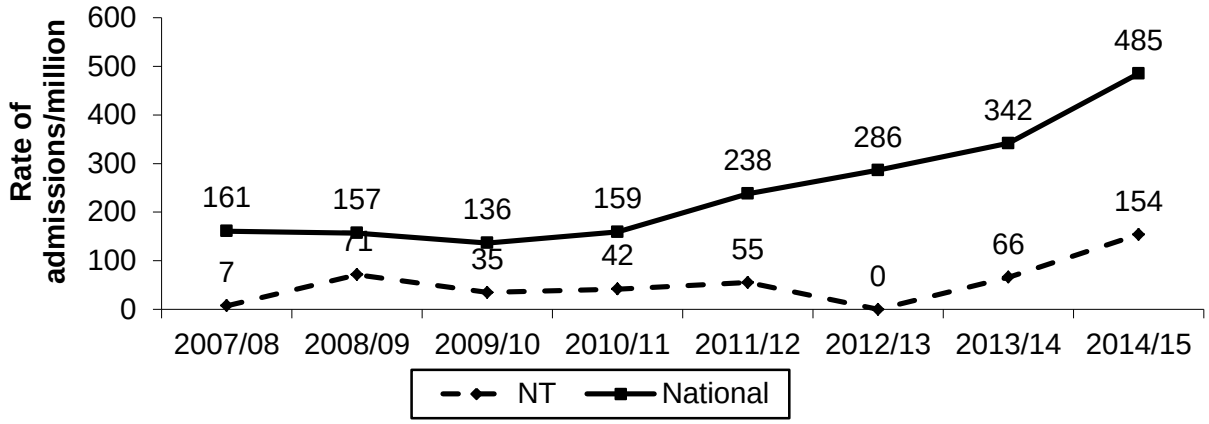
Participants reported the most severe symptom of their depressant overdoses as vomiting (n=3), losing consciousness (n=2) or collapsing (n=2). Six of the ten who had recently experienced a depressant overdose reported that they received any formal treatment or care on the last occasion, including being attended to by ambulance, attended a hospital emergency department or were monitored by friends.

6.2 Hospital admissions

6.2.1 Methamphetamine

The rate per million of inpatient hospital admissions among persons aged 15–54 years in which amphetamines were the principal diagnosis is shown in Figure 49 below. A principal diagnosis is defined as having been chiefly responsible for occasioning the patient's episode of care in hospital. Amphetamine-related hospital admissions in the NT over the past two years have mirrored the upward trend in these admissions at a national level. It should be noted however that NT rates are based on small numbers.

Figure 49: Rates per million persons of principal amphetamine-related hospital admissions among persons aged 15–54, NT and nationally, 2007/08–2014/15

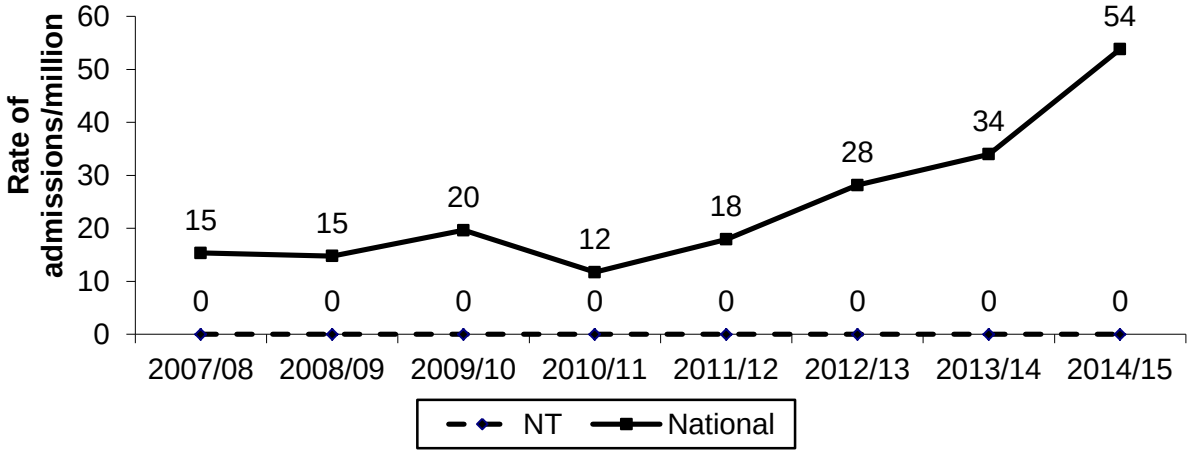


Source: AIHW; NT Health; Roxburgh and Breen (2017)
Note: These figures do not include admissions for amphetamine related psychosis or withdrawal. Amphetamine related psychosis admissions are reported separately in the source publication.

6.2.2 Cocaine

The rates of inpatient hospital admissions where cocaine was the principal diagnosis per million people aged 15–54 years are shown in Figure 50. The national rate increased to 53 per million persons in 2014/15, whilst the NT continued to report a rate of 0 cocaine-related admissions.

Figure 50: Rates per million persons of principal cocaine-related hospital admissions among persons aged 15–54, NT and nationally, 2007/08–2014/15

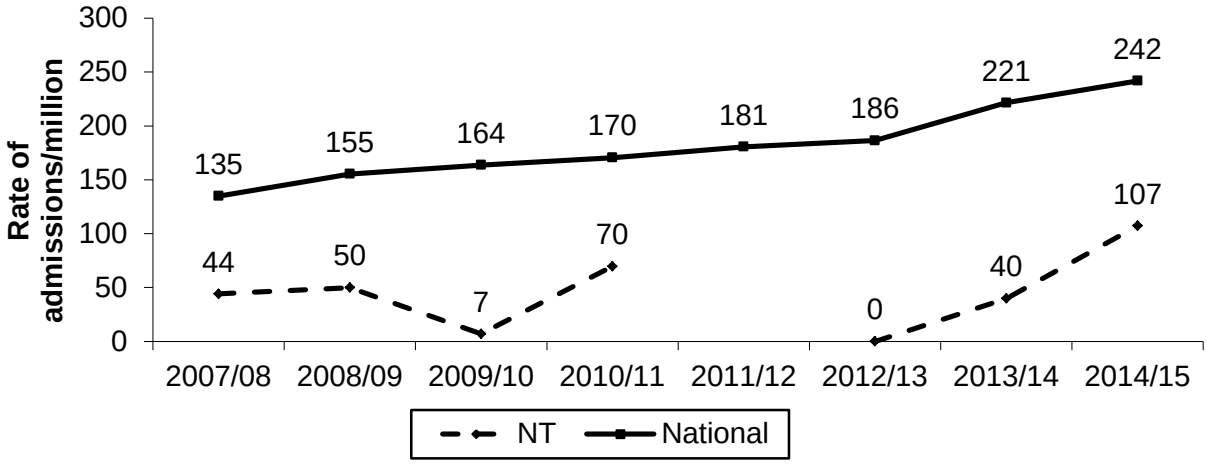


Source: AIHW; NT Health; Roxburgh and Breen (2017)

6.2.3 Cannabis

Figure 51 shows the rates of hospital admissions where cannabis was the principal diagnosis per million people aged 15–54 years. Cannabis-related admissions nationally have steadily increased over time, with 2014/15 representing the highest rate recorded. Rates reported for NT cannabis-related hospital admissions in 2014/15 have doubled from 2013/14, however, it should be noted that these rates are based on small numbers.

Figure 51: Rates per million persons of inpatient hospital admissions where cannabis was the principal diagnosis aged 15–54 years, NT and nationally, 2007/08–2014/15

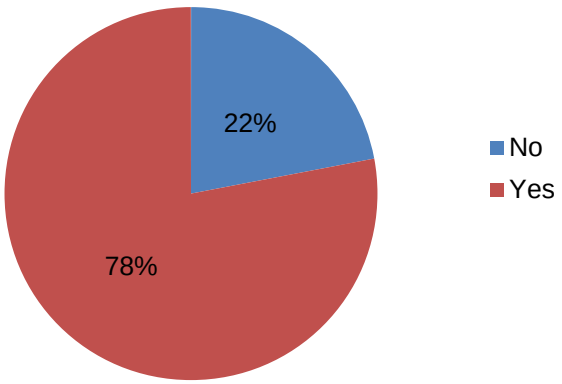


Source: AIHW; NT Health; Roxburgh and Breen (2017)
Note: The NT rate for 2011/12 is not presented because numbers were too small. These figures do not include admissions for cannabis related psychosis or withdrawal. Cannabis related psychosis admissions are reported separately in the source publication.

6.3 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 52). Three-quarters of the sample (78%) 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 (81%). Four visits to the GP were related to drug use.

Figure 52: Proportion of EDRS participants who recently accessed a medical or health service, NT



Source: EDRS participant interviews 2016

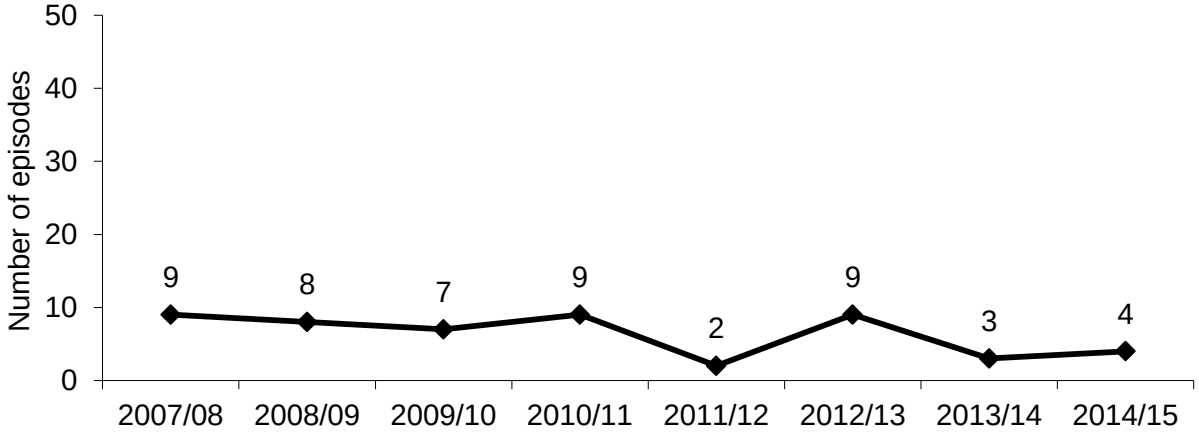
EDRS participants were asked whether they had thought about contacting any services or health professionals for reasons relating to their drug use, but failed to do so. Seventeen participants reported that they had thought about it but had not made contact with any services or health professionals.

6.4 Drug treatment

6.4.1 Ecstasy

The number of closed treatment episodes based on the date of commencement where the principal drug of concern was ecstasy remains low in the NT (Figure 53).

Figure 53: Number of ecstasy treatment episodes, NT 2007/08 to 2014/15

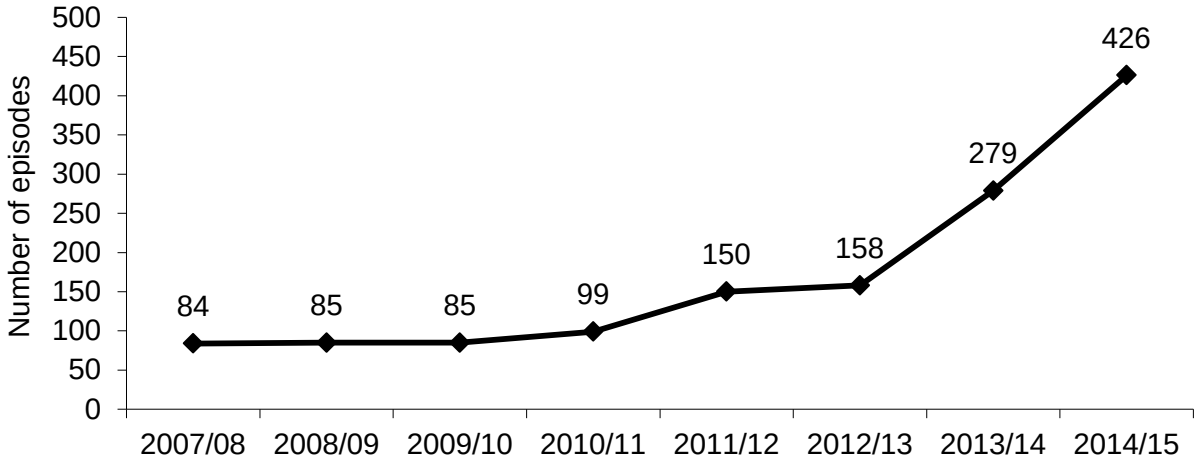


Source: AODTS NMDS (AIHW, 2016)
Note: The AODTS NMDS is based on closed treatment episodes, and so some episodes may be excluded if they were not closed in the financial year.

6.4.2 Methamphetamine

The number of closed treatment episodes based on date of commencement where methamphetamine was the principal drug of concern has increased steadily (Figure 54); with the number of episodes in 2014/15 being five times the number recorded in 2009/10.

Figure 54: Number of methamphetamine treatment episodes, NT 2006/07 to 2014/15

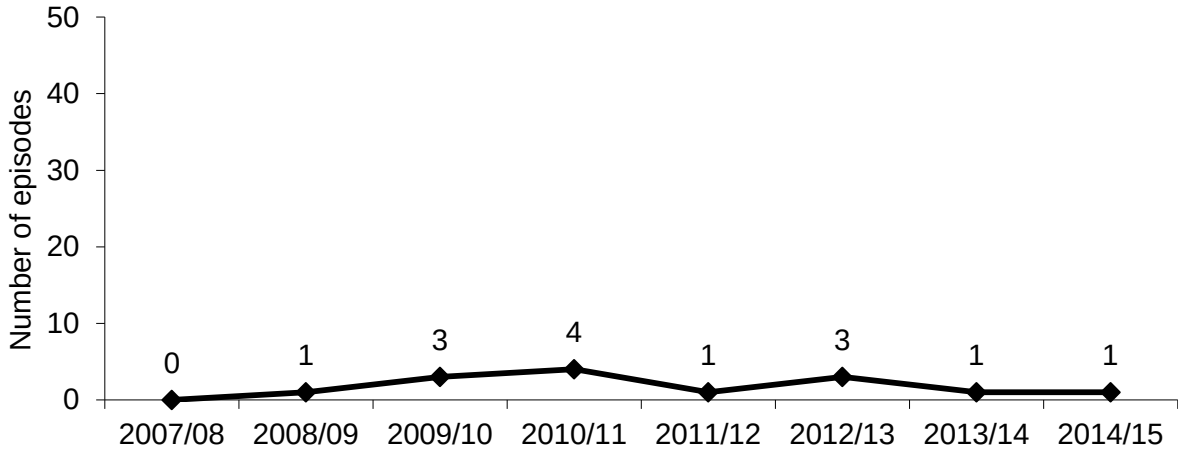


Source: AODTS NMDS (AIHW, 2016)
Note: The AODTS NMDS is based on closed treatment episodes, and so some episodes may be excluded if they were not closed in the financial year.

6.4.3 Cocaine

The number of closed treatment episodes based on date of commencement where cocaine was the principal drug of concern remains very low across time (Figure 55).

Figure 55: Number of cocaine treatment episodes, NT 2007/08 to 2014/15

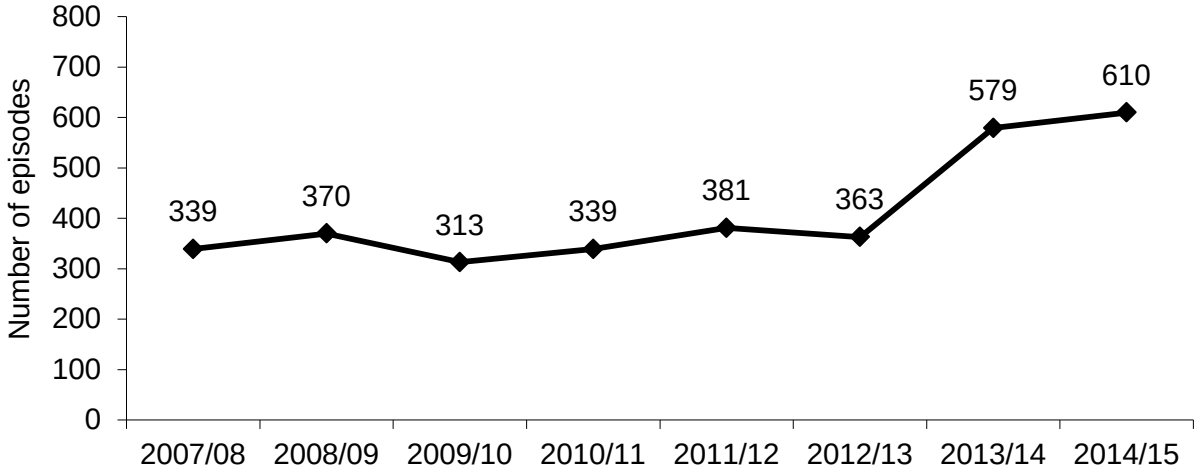


Source: AODTS NMDS (AIHW, 2016)
Note: The AODTS NMDS is based on closed treatment episodes, and so some episodes may be excluded if they were not closed in the financial year.

6.4.4 Cannabis

Figure 56 shows the number of closed treatment episodes based on the year of commencement where the principal drug of concern was cannabis. The past two years have seen an upward trend in the number of cannabis treatment episodes.

Figure 56: Number of cannabis treatment episodes, NT 2007/08 to 2014/15



Source: AODTS NMDS (AIHW, 2016)
Note: The AODTS NMDS is based on closed treatment episodes, and so some episodes may be excluded if they were not closed in the financial year.

6.5 Mental health and psychological distress

6.5.1 Self-reported mental health

Participants were asked whether they had experienced any mental health problems over the previous six months (Table 19). One-in-three (33%) 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 55%; anxiety 70%). Over half (55%) of those who experienced a mental health problem sought assistance from a health professional, and one-in-three (36%) had been prescribed medication (most commonly antidepressants).

Table 19: Mental health problems among EDRS participants, NT

	2008 (N=55)	2009 (N=67)	2013 (N=45)	2014 (N=99)	2015 (N=99)	2016 (N=99)
Any mental health problem recently (%)	7	21	9	20	20	**33**
Of these (%):						
Depression	100	86	100	70	80	**55**
Anxiety	75	43	25	60	70	**70**
Panic	25	14	25	0	20	**0**
Bipolar Disorder	–	–	50	0	0	**9**
Mania	50	14	0	0	0	**0**
Paranoia	50	7	0	0	25	**0**
Personality Disorder	25	–	0	0	0	**0**
Schizophrenia	–	–	0	0	0	**0**
Drug-Induced Psychosis	–	7	0	0	0	**3**
Obsessive Compulsive Disorder	–	7	25	5	10	**6**
Sought help from health professional^ (%)	0	43	75	70	50	**55**
Prescribed medication^ (%)	–	36	67	40	20	**36**

Source: EDRS participant interviews 2008, 2009, 2013, 2014, 2015, 2016
^ Percentage of those who had recently experienced a mental health problem

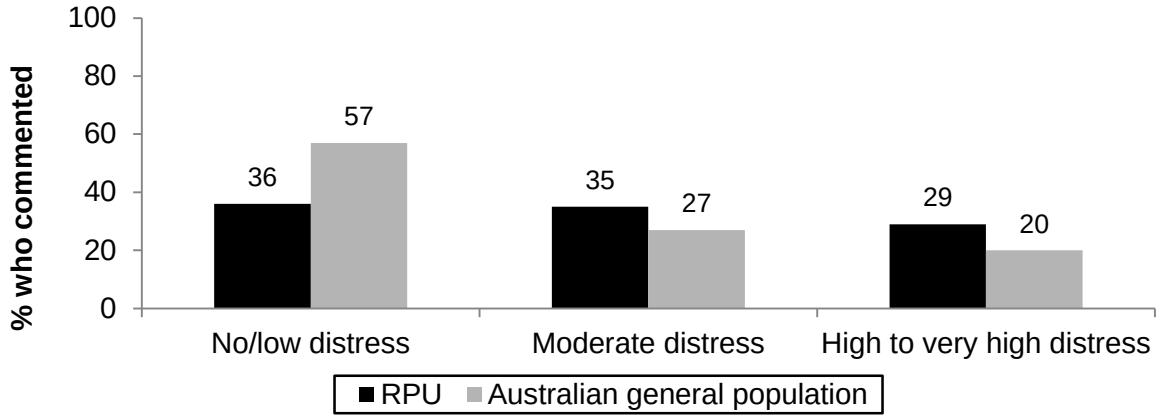
6.5.2 Kessler Psychological Distress Scale (K10)

From 2006, the EDRS has included the 10-item Kessler Psychological Distress Scale (K10) (Kessler 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, 2014).

The median score for participants was 17 (range=10–43). One-third of participants' scores fell into the 'no/low distress' (36%) category. The remaining participants displayed distress to some degree, including 'moderate distress' (35%) or 'high to very high distress' (29%) (Figure 57).

Figure 57 presents the EDRS participants' and general Australian population scores across these three categories. There are higher proportions of EDRS participants in the 'moderate' and 'high to very high' categories compared to the Australian general population.

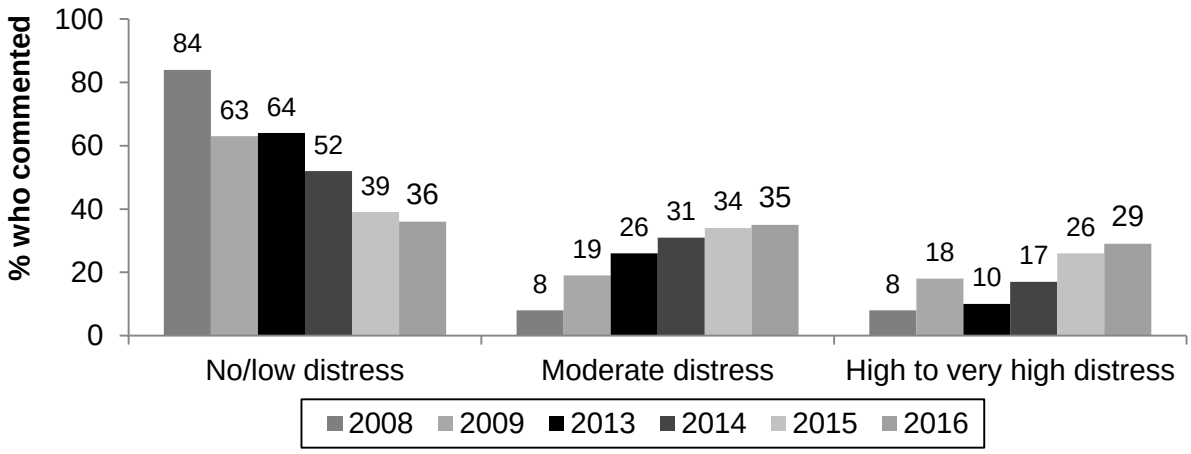
Figure 57: K10 scores for EDRS participants compared with the general Australian population, NT



Source: EDRS participant interviews 2016; Australian Institute of Health and Welfare (2014)

Figure 58 presents data across time on the proportions of each sample from 2008 to 2016 that fell into each distress category. There appears to be an increasing trend in the proportion of respondents scoring some degree of distress over time.

Figure 58: K10 scores across time for EDRS participants, NT



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

7 RISK BEHAVIOURS

Summary:

- One-quarter had ever injected a drug and six participants had done so in the past month.
- Two-thirds of the sample had recently had penetrative sex with a casual partner. A higher proportion of the sample reportedly used a protective sexual barrier when they were sober (43%) than when they were last under the influence of drugs or alcohol (23%).
- Of the 93 participants who had driven in the past six months, over half had driven over the alcohol limit or after taking an illicit drug.
- Participants completed the Alcohol Use Disorders Identification Test (AUDIT). The majority (80%) of the group fell in the 'harmful drinking' range.

7.1 Injecting risk behaviour

One-quarter (23%) of participants had ever injected a drug. Six percent of participants reported having injected within the past month (Table 20).

Table 20: Injecting risk behaviour among EDRS participants, NT

	2008 (N=55)	2009 (N=67)	2013 (N=45)	2014 (N=100)	2015 (N=101)	2016 (N=100)
Ever injected (%)	16	31	16	4	16	**23**

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

Participants who had injected a drug in the month prior to the interview (n=6) reported the median age of initiation as 19 years (range=16–25) and all reported their first drug of injection was crystal methamphetamine.

In the past month, two participants reported having used a needle after someone else and one participant reported that someone else had used a needle after they had used it. Four participants reported that they had injected a partner or friend after injecting themselves in the past month, and two participants reported that somebody else had injected them with a used needle after injecting themselves or others.

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 (67%) 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 the 67 participants who reported penetrative sex with a casual partner, the vast majority (90%) reported having done so while under the influence of alcohol or drugs (Table 21). The drugs most commonly used were alcohol, ecstasy, cannabis and cocaine.

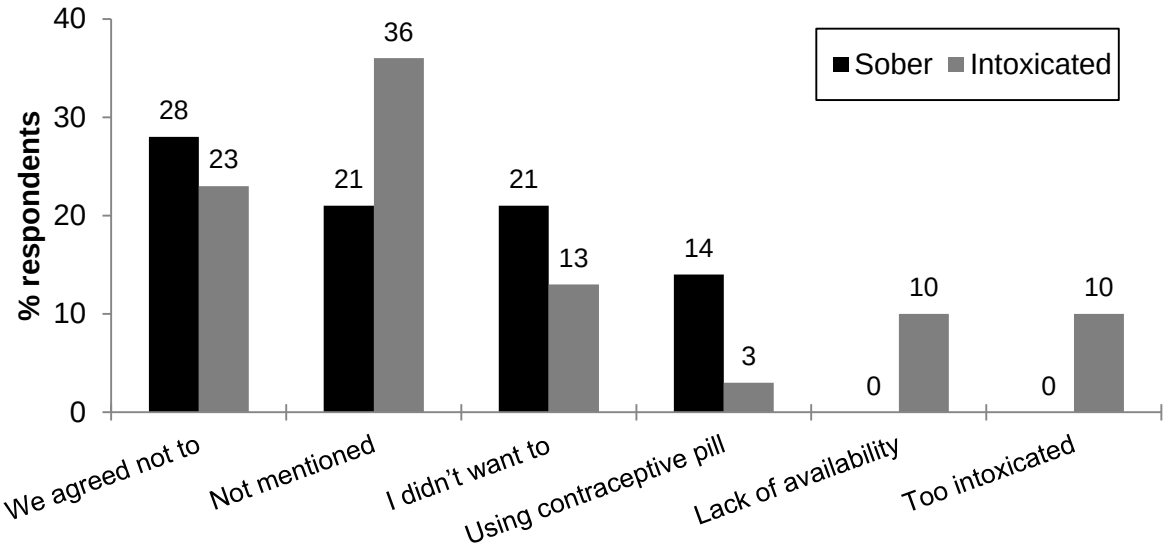
Table 21: Trends in sexual activity with casual partners in the past six months among EDRS participants, NT

	2008 (N=55)	2009 (N=67)	2013 (N=43)	2014 (N=99)	2015 (N=100)	2016 (N=100)
Casual penetrative sex (%)	62	60	70	72	80	**67**
No. of sexual partners (%)						
1 person	21	28	7	14	10	**14**
2 people	32	22	12	19	21	**12**
3–5 people	32	22	26	42	27	**27**
6–10 people	12	15	21	14	13	**5**
10+ people	6	11	5	11	9	**9**
Penetrative sex with casual partner while on drugs*	79	72	84	82	96	**90**
Drugs used (%)						
Alcohol	85	56	35	75	86	**90**
Ecstasy	82	88	62	44	53	**50**
Cannabis	7	18	42	32	51	**45**
Cocaine	0	0	19	5	13	**17**
Crystal methamphetamine	0	6	12	17	19	**13**
LSD	0	0	12	9	4	**7**
Speed	4	21	8	9	9	**7**
GHB	0	0	0	2	3	**5**
Ketamine	0	0	4	0	5	**5**
MDA	0	0	0	7	0	**0**
Mushrooms	0	0	0	2	0	**0**
Base	0	6	0	0	0	**0**

Source: EDRS participant interviews 2008, 2009, 2013, 2014, 2015, 2016
* Of those who had penetrative sex in the last 6 months

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 proportion of the sample reportedly used a protective sexual barrier when they were sober (43%) than when they were last under the influence of drugs or alcohol (23%). 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 59).

Figure 59: Reasons for not using protective barriers among EDRS participants, NT



Source: EDRS participant interviews 2016

Lastly, participants were asked about their sexual health check-up history. Two-thirds of the sample (70%) reported having a sexual health check-up in the prior year, and 15% reported that they had never had a sexual health check-up. In total, 24% of the sample has been diagnosed with a sexually transmitted infection (STI).

7.3 Driving

In 2016, participants were asked a series of questions regarding driving and the use substances (Table 22). The majority (93%) had driven a vehicle in the preceding six months. Of those who had driven, over half (56%) had done so over the legal blood alcohol limit.[14] Approximately three-quarters (74%) 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

	2008 (N=55)	2009 (N=67)	2013 (N=45)	2015 (N=101)	2016 (N=100)
Driven a vehicle in the past six months (%)	86	73	80	87	**93**
Driven over the limit of alcohol* (%)	30	88	54	59	**56**
Driven after taking an illicit drug* (%)	49	55	36	62	**74**

Source: EDRS participant interviews 2008, 2009, 2013, 2015, 2016
* 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, Babor, de la Fuente, & Grant, 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 & 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 Fluente, Saunders, & Grant, 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 et al., 1992).

The median score on the AUDIT for the NT 2015 sample was 13 (range=0–29). The majority (80%) 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, Saunders, & Monteiro, 2001) indicate four ‘zones’ into which total scores on the test can be divided. In the 2016 sample, one-fifth (20%) scored in zone 1 (low risk drinking or abstinence), two-fifths of the sample (41%) scored in zone 2 (alcohol in excess of low-risk guidelines), one-fifth (19%) scored in zone 3 (harmful or hazardous drinking) and the remaining one-fifth (20%) scored in zone 4 (possible alcohol dependence – may be referred for evaluation and possible treatment).

8 LAW ENFORCEMENT-RELATED TRENDS ASSOCIATED WITH ERD USE

Summary:

- Nineteen participants had been arrested over the past year.
- One-third had committed a crime within the past month; most commonly drug dealing.
- In 2014/15, there were increases in the consumer and provider arrests in the NT for amphetamines. Consumer and provider arrests remained stable for cocaine, hallucinogens, cannabis and steroid use/possession.
- The majority of participants reported that half or more of their friends had used ecstasy during the previous six months.
- One-quarter of participants had perceived changes in drug use among their social group, including increased availability of different drug classes.

8.1 Reports of criminal activity among EDRS participants

Nineteen percent of EDRS participants interviewed in 2016 had reportedly been arrested over the preceding 12 months. These arrests were for a number of offences, including violent crime (32%), public order (26%), alcohol and driving (26%), property crime (21%), the use/possession of drugs (16%), and drug dealing/trafficking (5%).

Table 23 presents data across time on both 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 2016.

Table 23: Criminal activity reported by EDRS participants, NT

	2008 (N=55)	2009 (N=67)	2013 (N=45)	2014 (N=100)	2015 (N=99)	2016 (N=100)
Any crime past month (%):	18	33	13	30	32	**36**
Drug dealing	18	31	7	19	26	**32**
Property crime	0	3	7	10	11	**8**
Fraud	2	0	2	0	1	**2**
Violent crime	0	5	2	9	6	**6**
Victim of a violent crime	*Data not collected until 2015*				11	**10**
Arrested past 12 months (%)	2	9	7	18	14	**19**

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

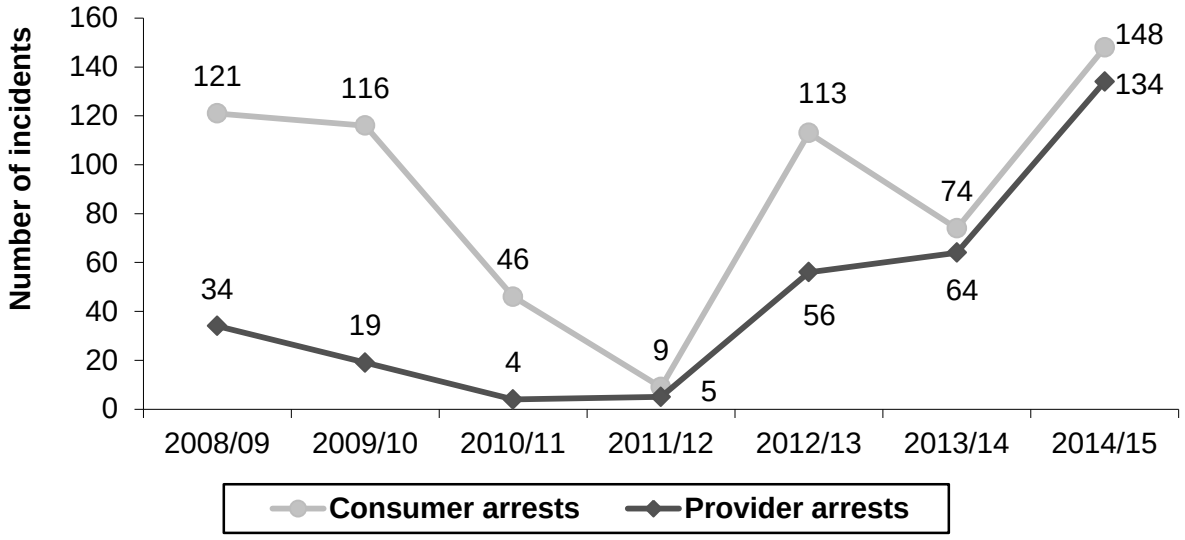
Thirty-two participants had dealt drugs in the month leading up to the interview. Of these, half had dealt drugs less than once a week (50%) and nine participants reported dealing daily (28%). Eleven EDRS participants had committed a property crime over the last month, which was mostly less than once per week (75%). The two participants who had committed fraud or violent crime over the last month reported doing so less than once a week. Six participants had committed a violent crime less than once per week. Lastly, ten participants reported being the victim of a violent crime, of which eight reported the perpetrator was under the influence of substances on the last occasion.

8.2 Arrests

8.2.1 Methamphetamine

Figure 60 shows the recorded incidents of amphetamine consumer and provider arrests for the NT. There has been a noticeable increase in both the number of consumer and provider arrests in the NT from 2013/14 to 2014/15.

Figure 60: Recorded incidents of amphetamine arrests in the NT, 2008/09–2014/15

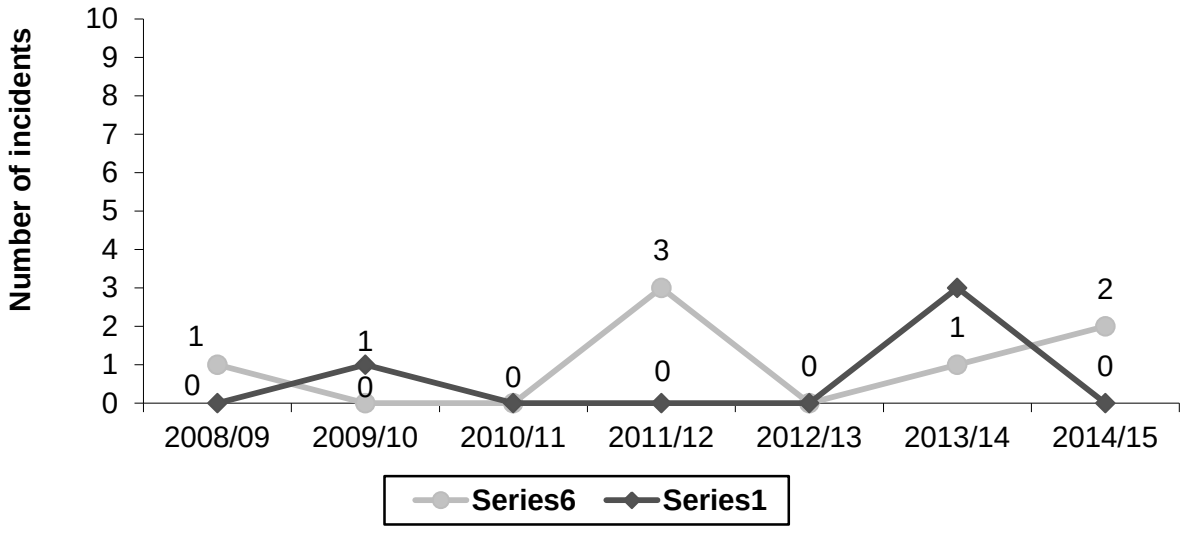


Source: ACC (2010, 2011, 2012, 2013, 2014, 2015), ACIC (2016)

8.2.2 Cocaine

The number of recorded incidents for cocaine arrests has remained low and stable since in the NT 2008/09 (Figure 61).

Figure 61: Recorded incidents of cocaine arrests in the NT, 2008/09–2014/15

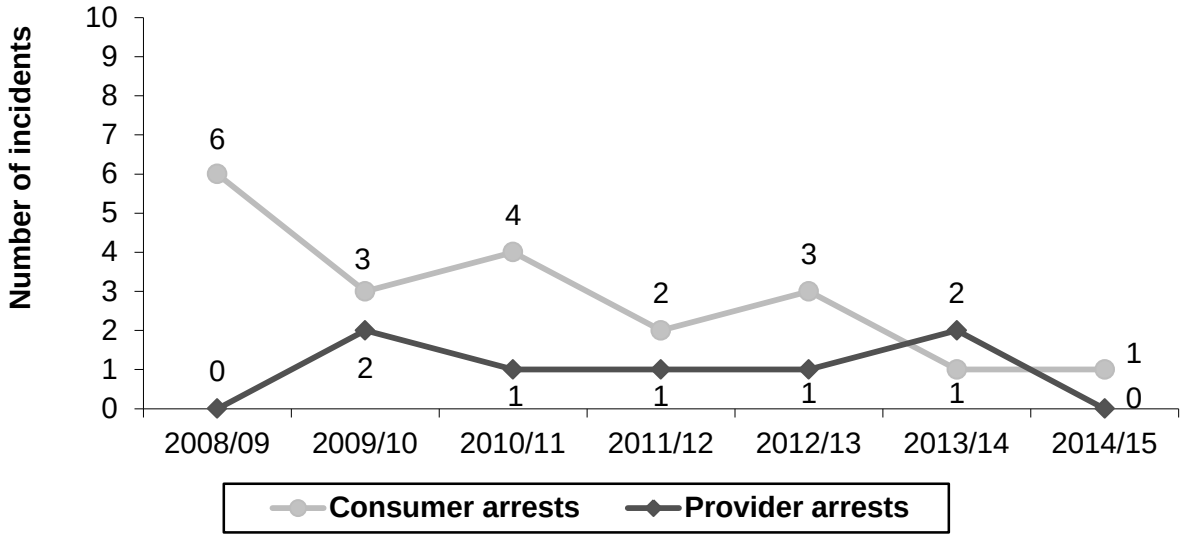


Source: ACC (2010, 2011, 2012, 2013, 2014, 2015), ACIC (2016)

8.2.3 Hallucinogens

In relation to consumer and provider arrests of hallucinogens, such as LSD and mushrooms, arrest numbers continued to remain low and stable in the NT (Figure 62).

Figure 62: Recorded incidents of hallucinogen arrests in the NT, 2008/09–2014/15

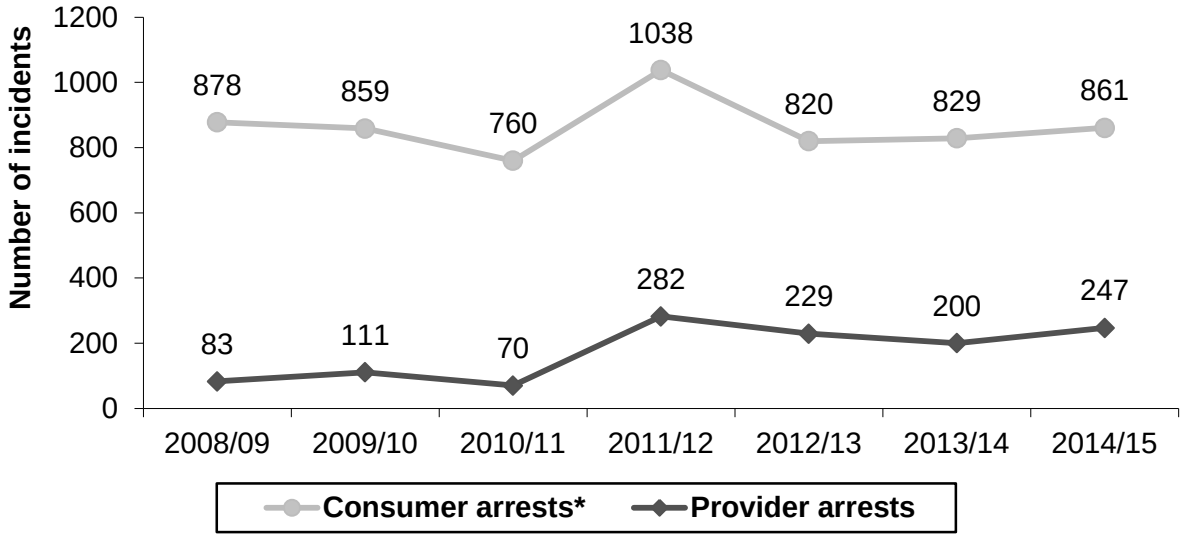


Source: ACC (2010, 2011, 2012, 2013, 2014, 2015), ACIC (2016)

8.2.4 Cannabis

Figure 63 shows the number of police-recorded consumer and provider arrests of cannabis in the NT. Compared to prior two years, the number of arrests remained mostly stable for both consumer and provider offences in 2014/15.

Figure 63: Recorded incidents of cannabis arrests in the NT, 2008/09–2014/15

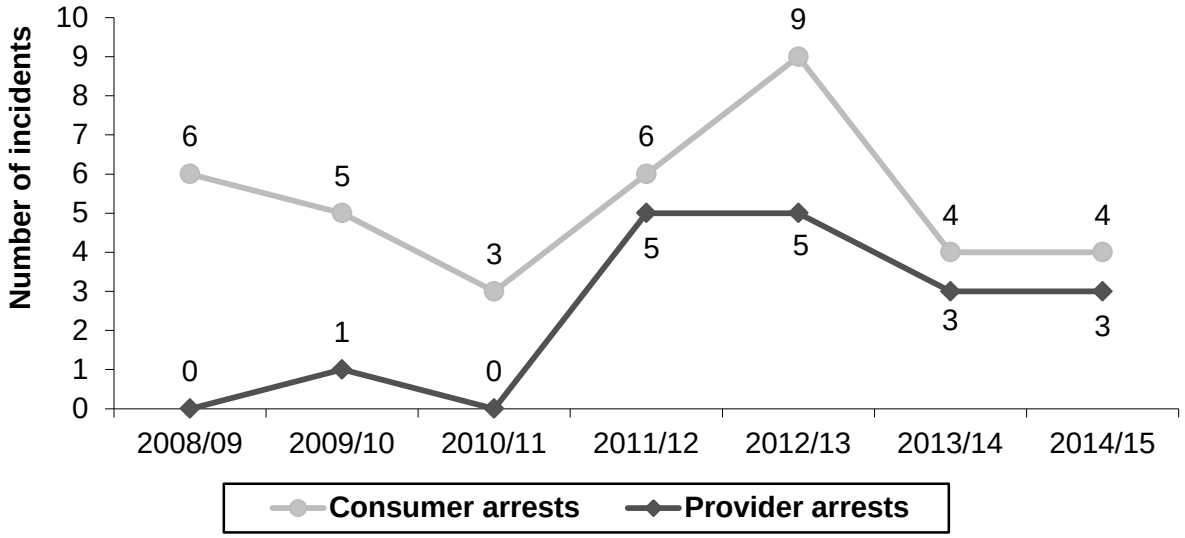


Source: ACC (2010, 2011, 2012, 2013, 2014, 2015), ACIC (2016)
* Consumer arrests for cannabis includes drug infringement notices

8.2.5 Steroids

The number of arrests of consumers and providers for steroid possession have remained relatively low over time (Figure 64).

Figure 64: Recorded incidents of steroid arrests in the NT, 2008/09–2014/15



Source: ACC (2010, 2011, 2012, 2013, 2014, 2015), ACIC (2016)

8.3 Perceptions of changes in peer drug use

The majority of participants (79%) reported that half or more of their friends had used ecstasy during the previous six months (10% 'all'; 39% 'most'; 30% 'about half'). One-fifth (21%) of participants reported that 'a few' of their friends had used ecstasy.

Over one-quarter (27%) of participants had perceived changes in drug use amongst their social group. Some of the more common themes in participants' comments included the following:

- Greater availability of illicit drugs in Darwin, with users willing to experience with new drug classes.
- Noticeable increase in the use of crystal methamphetamine.
- Increasing availability of synthetic drugs (NPS) in Darwin.

9 SPECIAL TOPICS OF INTEREST

Summary:

- NPS supply and purchasing patterns:
  - The majority of participants who had used a NPS had sourced it from a friend.
  - Sixteen NT participants reported that they had provided any NPS to others; mainly to friends for free or to share.
- NPS adverse effects:
  - Among past year NPS consumers (n=34), sixteen reported that they had experienced an unexpected adverse effect on their last occasion of use, most commonly visual hallucinations, paranoia and restlessness/anxiety.
- Video gaming and gambling
  - Fifty percent reported playing video games in the last six months, of whom 18% believed they had an issue with video gaming.
  - Two-thirds had gambled in the last six months, of whom 11% believed they had an issue with gambling.

9.1 NPS supply and purchasing patterns

Over the past decade, the number and range of substances collectively referred to as 'new psychoactive substances' (NPS) has increased dramatically. In 2015, the European Union were monitoring over 560 NPS, of which 70% were detected in the past five years (European Monitoring Centre for Drugs and Drug Addiction, 2016b). The rapid growth of the NPS market has been facilitated by a number of factors, one of which is the expansion of online marketplaces (European Monitoring Centre for Drugs and Drug Addiction, 2016a, 2016c). The expansion of these online drug markets has provided new opportunities for the supply and purchase of drugs, with internet sales of NPS now an international phenomenon and with many shops advertising worldwide delivery (European Monitoring Centre for Drugs and Drug Addiction, 2011).

Despite being readily available online, and despite the widely held perception that most NPS are purchased online, it appears that most consumers do not source NPS in this manner. That is, despite findings that NPS users are more likely to purchase drugs online than other drug users (Burns et al., 2014; Van Buskirk, Roxburgh, et al., 2016), for the most part they appear to obtain these substances from 'in-person' sources such as friends and dealers (e.g. Burns et al., 2014; European Commission, 2014; Stephenson & Richardson, 2014). However, despite potential heterogeneity in the forms of NPS used, many of these studies combine NPS consumers together into a single category and it is unclear whether differences exist across NPS consumers.

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

To address these issues, additional questions were included in the 2016 EDRS survey which examined the supply and purchasing patterns of past year NPS consumers (Table 24).

As outlined in Table 24, one-third of the NT sample reported using a NPS in the last 12 months, most commonly DMT and synthetic cannabinoids. The majority of those who had used a NPS in the last 12 months nominated a friend as their main source. Smaller numbers nominated a dealer or online as their main NPS source.

Participants were asked in the last 12 months if they provided any NPS to others. Sixteen NT participants reported that they had provided any NPS to others; mainly to friends for free or to share.

For more detailed results (including differences in purchasing and supply patterns across NPS consumers), please refer to (Sutherland et al., 2017 in press)

Table 24: Purchasing and supply patterns among past year NPS consumers, NT

	2016 (N=100)
% Used NPS last 12 months	34
% Main NPS used last 12 months	36
DMT	38
2C-x	3
NBOMe	0
Synthetic cannabinoids	27
Methoxetamine	3
DXM	9
Methylone	3
PMA	0
Mephedrone	0
Salvia Divinorum	3
Mescaline	0
5-MeO-DMT	0
Other	23
% How obtained substance[#]	(n=34)
Bought it	65
Given for free	50
Exchanged for something other than cash	9
% Main source	(n=34)
Friend	47
Acquaintance	3
Known dealer	6
Unknown dealer	0
Online dark net	3
Online surface web	0
Other	38
% Supplied NPS to others	47
% Who supplied NPS to[*#]	(n=16)
Friends	100
Relatives	13
Acquaintances	0
Strangers	0
% Method of supply[*#]	(n=16)
Gave away for free	44
Shared	56
Provided at cost price	19
Provided for cash profit	6
Exchanged	13

Source: EDRS participant interviews 2016

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

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

9.2 NPS adverse effects

Thirty-four percent of the RPU sample reported that they had used an NPS in the past year. Among past year NPS consumers, sixteen reported that they had experienced an unexpected adverse effect on their last occasion of use. The most common adverse effects reported were visual hallucinations (31%), paranoia (25%) and restlessness/anxiety (25%) (Table 25). No participants reported that they had sought emergency medical help for an NPS in the past year.

Table 25: Unexpected adverse effects among past-year NPS consumers, NT

	2016 (N=100)
Type of adverse effect %	(n=16)
Visual hallucinations	31
Paranoid	25
Restless/anxious	25
Nausea/vomiting	13
Panic	13
Fingers/toes cold or numb	13
Angry or aggressive	13
Shaky hands/fingers	6
Auditory hallucinations	6
Chest pain	6
Shortness of breath	6
Heart racing or erratic	0
Overheating	0
Skin discoloured (blue/red)	0
Skin rash	0
Other	31

Source: EDRS participant interviews 2016

9.3 Video gaming and gambling

Gambling disorder and internet gaming disorder are two of the most widely researched behavioural addictions (Grant et al., 2010) with the former recognised as a mental health disorder in the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) (American Psychiatric Association, 2013). Previous research has indicated a co–occurrence of each of these two behavioural addictions with substance use disorders (Sim et al., 2012, Petry et al., 2005).

In the 2016 EDRS survey additional questions were added to examine the proportions of co-occurring behavioural addictions and substance use disorders among a cohort of regular psychostimulant users. The questions assessed the amount of video gaming/gambling in the last six months and single-item measures of problematic video gaming/gambling (Thomas et al., (2008) Widyanto et al., (2010))

Among the NT sample, 50% reported playing video games in the last six months on a median of 30 days (around once a week; range=1–180 days). The median amount of time spent playing video games on a typical day was 120 minutes (ranged from 15 mins to 6.5 hours). Around two-fifths (43%) of those how had used video games in the last months had done so for one hour or less on a typical day of use. Eighteen percent of those who had played video games in the last six months believed they had an issue with video gaming (Table 26).

Participants were also asked questions around gambling. Of the NT sample over half (63%) had gambled on a median of ten days in the last six months (range=1–120 days). Eleven percent believed they had an issue with gambling (Table 26).

Table 26: Video gaming and gambling in the last six months, NT

	2016 (N=100)
Video games	
% Played video games in the last six months	50
Last six months:	
Median days played video games (range)	30 (1–180)
Median number of minutes spent playing video games on a typical day (range)	120 (15–390)
Amount of time spent video games on a typical day:	
% 1 hour or less	43
% More than 1 hour but less than 3 hours	37
% 3 hours or more	20
% Ever had an issue with video gaming	18
Gambling:	
% Gambled in the last six months	63
Last six months:	
Median days gambled (range)	10 (1–120)
% Ever had an issue with gambling	11

Source: EDRS participant interviews 2016

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